Discipline and threatened punishment: the theory of nuclear deterrence and the discipline of strategic studies, 1946-1960

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NOTE

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ABSTRACT

This thesis reconstructs the history of the theory of nuclear deterrence and the discipline of strategic studies in the period 1946 to 1960. The key elements of the theory were the view that nuclear weapons were qualitatively different from conventional weapons, that “deterrence” was the sole purpose of nuclear weapons, and that in order to fulfil this purpose the weapons’ retaliatory capability had to be protected from enemy attack. This amounted to a prescription for the non-use of nuclear weapons in any capacity by either side. It is argued that the theory of deterrence underwent a process of systematisation and formalisation during the 1950s. This process involved the application of systems analysis and game theory to strategic analysis and led to the emergence of strategic studies.

It is also argued that strategic studies was developed in emulation of economics, particularly neo-classical and quantitative economics. The strategic theorists who were responsible for the development of the theory and discipline equated quantitative strategic analysis with good strategic analysis. Both systems analysis and game theory served as vehicles for the application of the methods of quantitative economics to the analysis of “deterrence” and its requirements. As the systematisation and formalisation of the theory took the view that “deterrence” was the sole purpose of nuclear weapons to a higher level of abstraction so did the theory, and the discipline, become increasingly irrelevant to the practical concerns of American policy makers and military planners. The policy makers and planners saw no qualitative difference between conventional and nuclear weapons. They therefore did not accept the view that the sole purpose of nuclear weapons was “deterrence” as the theorists understood the term. Moreover, by the mid 1950s the military planners in particular had come to the conclusion that the only way to “deter” an enemy nuclear strike was to pre-empt it. It is argued in the thesis that the theorists’ awareness of the yawning gap between their and the policy makers’ and planners’ conception of the purpose of nuclear weapons was of paradigmatic importance for the theory and the discipline.
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INTRODUCTION

DISCIPLINE AND THREATENED PUNISHMENT:
THE THEORY OF NUCLEAR DETERRENCE
AND THE DISCIPLINE OF STRATEGIC STUDIES, 1946-1960

Throughout this period, most of the defense intellectuals--with a few notable exceptions--would stay out of the limelight, preferring the relative anonymity of the consultant, the special assistant. Yet this small group of theorists would devise and help implement a set of ideas that would change the shape of American defense policy, that could someday mean the difference between peace and total war. Though virtually unheard of by most of even the very well read among the general population, they knew they would make their mark--for they were the men who pondered mass destruction, who thought about the unthinkable, who invented nuclear strategy.1

Theory and Discipline: Content and Context

According to academically respectable folklore, American nuclear strategy during the Cold War could be described and characterised in one word, “deterrence”. “Deterrence” defined a strategy by which the United States sought to avert Soviet aggression, in particular a Soviet first or pre-emptive nuclear strike, by the threat of devastating retaliation. Defined thus, American nuclear strategy was a defensive, reactive and, in the end, restrained response to unremitting Soviet provocation and malevolence. Having little or no room for manoeuvre, and for the sake of their own country’s and the West’s survival, American leaders were compelled to resort to the threat of nuclear retaliation. Given that over the entire

duration of the Cold War the Soviet Union did not launch a nuclear attack against the United States or its allies, the strategy of nuclear deterrence was in academic circles and elsewhere widely acclaimed a remarkable success, a tribute to American, and more generally Western, restraint, rationality and morality.

Academically respectable folklore would also have it that those largely responsible for devising the strategy of nuclear deterrence were a group of civilian strategic theorists ("defense intellectuals" as Kaplan calls them) employed by the RAND (Research and Development) Corporation, a United States Air Force "think tank", which was located in Santa Monica, California. While the folklore extends to the acknowledgment that the theorists were not so much concerned with the practicalities of "deterrence", it does attribute the RAND strategic theorists with establishing the theoretical underpinnings and constructing the conceptual framework of the strategy. These theorists, seized of the vast divide separating conventional from nuclear weapons but deeply concerned about the pernicious intentions of the Soviet Union, conceived of a strategy which sought through the threatened or non use of nuclear weapons to avert war by "deterring" Soviet aggression.

Obviously, the RAND strategic theorists would not have had the opportunity to establish the theoretical underpinnings and construct the conceptual framework within which American nuclear strategy developed had they not had an inordinate level of influence over the policy makers and military planners who were responsible for American nuclear weapons policy and strategy. An important part of the folklore surrounding the theory and strategy of "deterrence" and the role of the strategic theorists, therefore, is the belief that the policy makers and planners shared with the theorists the view that nuclear weapons were qualitatively different from their "conventional" counterparts. Like the theorists, then, the policy makers and planners accepted that nuclear weapons should play a central role in United States military strategy for dealing with the Soviet Union, but that the role of nuclear weapons was to avert or "deter" Soviet aggression. According to the folklore, for the theorists, as for the policy makers and planners, this role for nuclear weapons was performed in the act of threatening to retaliate with them to a
Soviet attack, not in actually using them. Threatening to retaliate with nuclear weapons was an act of non-use. Implicit in the quote from Kaplan above, which both represents and perpetuates the folklore, is the view that the invention of nuclear strategy fell to the strategic theorists because they were the only ones who were actually prepared to think about mass destruction and the “unthinkable”. The policy makers and planners evidently were either unwilling or unable to deal rationally with such grave matters, and therefore were simply the consumers of the ideas about the role and use of nuclear weapons passed on to them by the theorists. These ideas were constitutive of American nuclear strategy. That is, they guided the policy makers and planners in the choices they made in regard to yields of weapons, types of bombers, basing modes for the bombers, locations of bases, and so on. In guiding the policy makers and planners, the strategic theorists ensured that American nuclear weapons would increasingly serve their proper purpose which was, of course, “deterrence”. “Deterrence” was the theoretical hub of strategic studies, an academic discipline, more specifically a policy science, which was created and developed by the RAND strategic theorists.

In the folklore, strategic studies was the discipline in which the RAND theorists’ thinking about the purpose and role of nuclear weapons, and nuclear strategy itself, increasingly became scientifically rigorous—even while it remained essentially abstract and speculative. Indeed, according to the folklore, strategic studies emulated economics which it was believed had developed in such a way as to allow economic policy making to be rationalized and to give policy makers greater control over the economy. By emulating economics, it was thought that strategic studies would similarly rationalize defense policy making and strategy formulation, and allow policy makers a much greater degree of control over the strategic environment than they had hitherto exercised. The primary methods of analysis employed by the strategic theorists, namely game theory and systems analysis, were in effect vehicles for the application of the methods of economics to strategic analysis. According to the folklore, the traditional methods of the

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2 For a clear expression of that part of the folklore of “deterrence” which deals specifically with strategic studies see Hedley Bull, 'Strategic Studies and Its Critics', World Politics, vol. 20, no. 4 (July 1968), pp. 593-605.
military profession had, with advent of nuclear weapons, become obsolete and accordingly been usurped by the scientific methods of the strategic theorists. Unable or unwilling to think rationally and scientifically about what the proper purpose of nuclear weapons was or should be, the uniformed military planners had therefore become consumers of the ideas of the civilian strategic theorists.

In accord with the folklore, it is argued in this thesis that strategic studies was the discipline in which the theory of nuclear deterrence was increasingly systematised and formalised by the RAND strategic theorists; that this systematisation and formalisation involved the application of systems analysis and game theory to the analysis of the problem of "deterrence" and its requirements; and that strategic studies did emulate economics, particularly neo-classical, more generally quantitative, economics. It is further argued, again in accord with the folklore, that the strategic theorists did regard their methods as greatly superior to, because much more scientific than, the methods which the uniformed military planners employed. However, in diametrical opposition to the folklore, it is argued that strategic studies, and the strategic theorists, in fact exerted little or no influence over American military planners in the period 1946-1960, that the strategic theorists did not invent American nuclear strategy, and that the increasing formalisation and systematisation of the theory of deterrence in fact made strategic studies more and more irrelevant to the concerns of the policy makers and planners. The reasons for this will now be made apparent.

In an apparent vindication of the strategic theorists' ideas, a national policy of "deterrence" was approved by the American National Security Council (NSC) in November 1948. This policy made possession of the atomic bomb the centrepiece of American strategy. However, this was an apparent and not an actual vindication because there were two conflicting concepts or notions of "deterrence" in circulation in the American strategic community. One of these concepts belonged to the strategic theorists and the other to the policy makers and planners. The folklore of "deterrence" fails to account for the fact that there was not one but two concepts of "deterrence" which were, moreover, entirely inconsistent with one another. Because there is no acknowledgment in the folklore of the existence of
two concepts of "deterrence", the belief or assumption that the strategic theorists invented American nuclear strategy, which is central to the integrity and persuasiveness of the folklore, therefore is able to stand without challenge or qualification.

The national policy of "deterrence" approved by the NSC in 1948 was, not surprisingly, an endorsement of the policy makers' and planners' concept, not the theorists'. In what, then, did the policy makers' and planners' concept consist, and how did it differ from the theorists'? In 1948, prior to the first successful Soviet atomic test which was conducted the following year, for the policy makers and planners "deterrence" was at best an unintended by-product--intimidation--of the planning for the early use of nuclear weapons in a war with the Soviet Union. Nuclear weapons were at this point regarded by the policy makers and planners as a counterweight to an alleged Soviet superiority in conventional weapons (infantry, tanks, etc.) in Europe. After the Soviet atomic test in 1949, "deterrence" for the policy makers became the by-product of planning for the pre-emptive use of nuclear weapons (basically, "pre-emption" meant getting in the first blow, delivering a first strike). By the mid-1950s both the United States and the Soviet Union had equipped themselves with thermonuclear weapons (hydrogen bombs) and intercontinental strategic bombers. At this time, "deterrence" for the military planners and, by association the policy makers, became squarely equated with pre-emption itself. That is, by the mid-1950s the military planners were firmly of the view that, in order to "deter" a Soviet first, pre-emptive or surprise attack, it had to be pre-empted. In other words, for the planners an American first strike was the only way of "deterring" a Soviet first strike. This was a considerable distance indeed from the theorists' conception of "deterrence"--as the credible threat of devastating retaliation. It was precisely because the policy makers and planners did not regard nuclear weapons as a distinct class or category of weapons the sole purpose of which was "deterrence" as understood by the theorists, that they were able to plan to use nuclear weapons in war with the Soviet Union and to do so in a manner which would forestall anticipated Soviet aggression.
In the mid-1950s, and in responding to exactly the same strategic developments as caused the planners to transform their concept of "deterrence", the strategic theorists elevated the notion and problem of "vulnerability" to a standing in the theory of nuclear deterrence which very nearly put it on a par with "deterrence" itself. These developments served only to vindicate and strengthen their belief that the sole and proper purpose for nuclear weapons was "deterrence" as they understood it. "Vulnerability" expressed the view that, because the strategic nuclear weapons of the United States would be destroyed in a Soviet pre-emptive strike, they were unable to "deter" such an attack. Hence, only if they retained their retaliatory capability even in the event of such an attack would they be able to "deter" it. This was the point in time, then, when the two concepts of "deterrence", strategic theory and strategic practice, moved farthest apart.

The strategic theorists knew of and recognized the extent of the gap which divided their assumptions about the purpose and role of nuclear weapons from the assumptions of the policy makers and military planners. "The gap" was an extremely important factor in the development of the theory of nuclear deterrence, particularly after 1949 when the two conceptions of "deterrence" began to move further apart than they had already been. Indeed, it is argued in this thesis that "the gap", and the theorists' perceptions of it, was of paradigmatic importance. This will become clearer below, and in Chapters 5 and 6.

This thesis reconstructs the history of the theory of nuclear deterrence and the discipline of strategic studies over the first fifteen years or so of their development. It argues that the systematisation and formalisation of the theory of nuclear deterrence, which involved the application of systems analysis and game theory to the problem of "deterrence" and its requirements, and the development of strategic studies were one and the same process, and that by the mid-1950s strategic studies had become in effect systematised and formalised deterrence theory. As will be seen, in reconstructing this history a narrow disciplinary approach is rejected. This is because such an approach focuses too heavily on the "inside" (prominent practitioners, texts, areas of research, etc.) and thus loses sight of what is "outside" of a discipline, that is the wider academic, social and political...
context within which it develops. On the other hand, it rejects an approach which concentrates almost exclusively on the context of a discipline and therefore is unable to account for the development of its “inside” and for how the “inside” and the “outside” of the discipline connect and interact with one another. Rather the thesis adopts an approach which explains how the events, processes and institutions on the “outside” of strategic studies shaped the development of its “inside” and, in turn, how its “inside” apprehended and sought to explain the part of the wider context on which it focused. Two concepts from the history and sociology of science, “paradigm” and “doxa”, are used in this approach.³

It is argued in this thesis that the history of deterrence theory and strategic studies cannot be told and explained without first taking due account of how sharply the theorists’ thinking about the proper purpose and role of nuclear weapons diverged from the planners’ (and policy makers’) thinking. Fundamental to this divergence in thinking was the difference in how nuclear weapons were viewed. While the theorists regarded them as being qualitatively different from conventional weapons, the planners and policy makers saw them as essentially bigger and better versions of conventional high explosive and incendiary bombs. These opposing views were at the core of two collections or compilations of quite contradictory assumptions, beliefs and ideas about the nuclear weapons and their purpose, which by the 1950s had hardened into, on the one hand, the “deterrence paradigm”⁴ and, on the other, the “intellectual framework of pre-emption”. It needs to be pointed out here that, as will be seen more clearly below, “paradigm” and “intellectual framework” are identical in meaning in regard to their respective “disciplines”.

³ As will be seen below, where the two concepts are explicated, “paradigm” was introduced, developed and deployed by Thomas Kuhn, in The Structure of Scientific Revolutions (second, enlarged ed.), The University of Chicago Press, Chicago and London, 1962 and 1970. Pierre Bourdieu introduced the notion of “doxa” in “The Specificity of the Scientific Field and the Social Conditions of the Progress of Reason”, Social Sciences Information, 14(6), 1975, pp. 19-47

⁴ The notion of “deterrence paradigm” was suggested by Roman Kolkowicz. While Kolkowicz’ use of the term is a veiled, perhaps even unintended, appeal to the authority of Kuhn, his elucidation of the concept has to be rejected for not only does he not look beneath the paradigm to the underlying doxa, he also discusses and analyses “deterrence” in the terms and rhetoric of the strategic theorists themselves. Moreover, he does not consider the paradigm in relation to the intellectual framework of the military planners. See Kolkowicz, ‘Intellectuals and the Nuclear Deterrence System’ in Kolkowicz The Logic of Nuclear Terror, Allen and Unwin, Boston, 1987, pp. 15-46.
However, the two different terms are used in order to enhance the clarity of the analysis and argument, that is, clearly to differentiate the theorists’ set of assumptions about nuclear weapons from those of the planners (and policy makers).

It would be wrong to conclude, however, that the strategic theorists and the policy makers had nothing in common. Indeed, in reality they shared more than they disagreed on. For example, the transformation in the planners’ concept of “deterrence” and the elevation in the theory of the importance of “vulnerability”--each of which was symptomatic of the hardening of the two sets of assumptions and related beliefs about nuclear weapons--were both developments predicated on the view that the Soviet Union was planning a pre-emptive strike against the strategic nuclear forces of the United States and that it was capable of and intent on eliminating these forces in such an attack. The theorists, military planners and policy makers shared many assumptions and presuppositions that were more fundamental than those contained in either the paradigm or intellectual framework. In this thesis, this collection of assumptions and presuppositions is referred to as the “doxa”.

The doxa contained assumptions and presuppositions, mostly undisclosed and unarticulated, about the place and role in the world of the United States and the Soviet Union, and about why the former was morally, politically and in other ways superior to the latter. Importantly, the doxa gave legitimacy to both the paradigm and the intellectual framework. It grew out of and was supported by the encompassing social and political context and, in turn, the paradigm and intellectual framework grew out of and were supported by the doxa. Obviously, therefore, the paradigm and intellectual framework were englobed within the same social and political context. The historical reconstruction of the development of strategic studies, that is, systematised and formalised deterrence theory, which is advanced in this thesis, therefore, works up from the encompassing social and political context of the doxa to the theory and discipline themselves. In so doing, it is able to show how the discipline emerged from this context and how it interacted with events, processes and agencies within it. Moreover, it is argued that this
context extended, both spatially and temporally, well beyond the circumscribed confines of the immediate circumstances, individuals and agencies which shaped the emergence and subsequent development of the discipline. However, prior to taking up the larger issues of how the discipline interacted with the environment within which it emerged and developed, it is important first to be clear about who the major figures were in the discipline in the first fifteen years of its development and what the contribution of each was to this development.

The first fifteen years in the development of the theory of deterrence and the discipline of strategic studies at RAND: the major figures and their contributions

The view that “deterrence” was the sole purpose of nuclear weapons was originally advanced by Bernard Brodie. He contended that, in the atomic age, the chief purpose of the “military establishment” was no longer to fight and win wars, rather it was to avert them. This was the founding moment for the theory of nuclear deterrence. Even at this early stage Brodie realised that the retaliatory force would only be able to avert or deter an enemy attack if it were not vulnerable to attack. The force therefore had to be protected from attack, in other words made invulnerable. He thought that putting the retaliatory force underground in shelters might be one way of protecting them from a surprise enemy attack. In reaching the conclusion that the retaliatory force had to be protected from attack, Brodie had reasoned that protecting the force’s retaliatory capability would not only prevent or “deter” the enemy’s use of atomic weapons, it would also obviate the need for the United States to use them. His conception of “deterrence” was in effect, therefore, a prescription for the non-use of atomic weapons. Brodie’s ideas on the purpose of nuclear weapons and how that purpose could be fulfilled were the nub of deterrence theory which endured through the 1950s and beyond, the theory which was systematised and formalised at RAND during that decade.

The systematisation and formalisation of the theory of nuclear deterrence and the development of the discipline of strategic studies were in fact one and the same.

process. Systematisation and formalisation involved the application of systems analysis and the theory of games to the analysis of the problem of “deterrence” as initially conceived by Bernard Brodie in 1946. At this early stage, it was on a fairly abstract plane that Brodie offered his analysis of the problem of “deterrence” and stipulation of its requirements. For example, even though Brodie anticipated that before too long the Soviet Union would develop nuclear weapons, the first Soviet atomic test was still some years away. After the Soviet test (1949), the development of the concept, and theory, took place in the context of the Soviet Union’s development of a deliverable nuclear weapon and the building of its arsenal, the rapid and massive growth in size of the American nuclear arsenal and Air Force (particularly the Strategic Air Command (SAC)), and the acquisition of thermonuclear weapons and intercontinental bombers, first by the United States and then by the Soviet Union.

Through the late 1940s and 1950s the theory of nuclear deterrence thus, on the one hand, became less abstract as it was applied to actual weapons and weapons “delivery systems” and as the Soviet Union emerged first as a nuclear and then a thermonuclear power. On the other hand, however, the theory grew more and more abstract as its formalisation and systematisation continued apace; that is, as game theory and systems analysis were increasingly used in the analysis of “deterrence” and its requirements. The incontrovertible measure of the increasing abstractness of the theory was that it moved further and further from the actual concerns, intentions and decisions of the policy makers and military planners. The systematisation (and institutionalisation) of deterrence theory took place in the RAND Corporation, which as noted was a so-called “think tank” established by the United States Air Force in 1946. It was only in the early 1950s that the process of systematisation really took off at RAND, even though it had actually begun a few years prior to that. The establishment of the RAND Economics Division in 1947 effectively initiated the systematisation and formalisation of deterrence theory. The Social Sciences Division was set up at the same time, but it was not until the late 1950s that it began to play a significant part in the overall RAND research effort.
In order to identify and account for the events, problems and issues involved in the process of systematisation and formalisation of the theory of nuclear deterrence beyond Brodie’s founding contribution, the major works published by three key RAND strategic theorists during the 1950s will be analysed. These are Albert Wohlstetter, ‘The Delicate Balance of Terror’ (1959); Thomas Schelling, The Strategy of Conflict (1960); and Bernard Brodie, Strategy in the Missile Age (1959). It is commonplace in historical accounts of deterrence theory and strategic studies arbitrarily to divide the first fifteen or so years of their development into a very brief first wave, 1945-1946, in which Brodie was the dominant figure, and a second wave or “Golden Age”, stretching roughly from 1954 to 1965, during which strategic theorists such as Albert Wohlstetter, Thomas Schelling and others came to prominence. The trouble with this periodisation of the history is that Brodie was also very prominent during the so-called second wave or Golden Age. Indeed, the growing importance of “vulnerability” in deterrence theory was a vindication of Brodie’s earliest ideas, and the systematisation and formalisation of deterrence theory which occurred in the second wave was in fact a systematisation and formalisation of the very same ideas. Such periodisation is therefore rejected in this thesis.

6 The arguments and analyses contained in these three published works will be analysed in light of the classified work being done at the RAND Corporation by Brodie, Wohlstetter and Schelling (and others) and the classified policies and war plans formulated by the policy makers and military planners. As Colin Gray observes, in response to the experience of “limited war” in Korea and the development of the hydrogen, thermonuclear or “super” bomb, “...analysts at and connected with the Rand Corporation in Santa Monica, California, launched a public, and classified, strategy debate that was to sustain itself until the mid-1960s.” Colin S. Gray, Strategic Studies: A Critical Assessment, Greenwood Press, Westport, Conn., 1982, p. 15.

7 In addition to the two “waves” of development already mentioned, a number of authors have also suggested a “third wave” that spans the period from 1971 to 1981. For more on the wave theory of development see, e.g., Gray, Strategic Studies, pp. 15-23 (Gray is one who speaks of a “third wave”); Barry Buzan, An Introduction to Strategic Studies: Military Technology and International Relations, MacMillan Press (in association with the International Institute for Strategic Studies), Basingstoke and London, 1987, pp. 143-160 (Buzan is another “third waver”); Roman Kolkowicz, op. cit., pp. 21-32 (Kolkowicz focuses on the “Golden Age”). See also Michael Howard, ‘The Classical Strategists’ in Howard, Studies in War and Peace, Maurice, Temple, Smith, London, 1970, especially pp. 160-175 and Howard, ‘The Strategic Approach to International Relations’ in Howard, The Causes of Wars and other Essays, Counterpoint (Unwin Paperbacks), London, 1984 [Maurice, Temple, Smith, 1983], especially pp. 43-44.
Wohlstetter’s ‘A Delicate Balance of Terror’ is examined, because it was in this article that the concept of “deterrence”, which Brodie had introduced in 1946, was shown to have remained relevant into the late 1950s when a much altered strategic situation obtained. Even though Brodie’s founding contribution was not directly acknowledged in ‘The Delicate Balance of Terror’, Wohlstetter demonstrated that “vulnerability” was the lynch-pin of a strategy of deterrence as conceived by the theorists. Wohlstetter’s article is an important document in the development of strategic studies, because it summarised two reports that had been prepared for the Strategic Air Command earlier in the 1950s by Wohlstetter himself and other analysts at the RAND Corporation. In the two studies, Wohlstetter and his cohorts had shown that, based on the assumption that SAC’s bombers comprised a deterrent force, SAC’s overseas bases (and the aircraft stationed at them) were vulnerable to a surprise Soviet attack and therefore did not have the capability to deter such an attack. Thus, at precisely the time that the military planners at SAC (and the Joint Chiefs of Staff) were thinking of “deterrence” in terms of pre-emption, Wohlstetter was warning that they did not have the capability to deter a Soviet pre-emptive strike. The reports recommended a number of steps that should be taken by SAC to protect the retaliatory capability of the bombers (and, therefore, their capacity for “deterrence” in the strategic theorists’ sense). One of the recommendations of R-290, the second report, was that the bombers of the Strategic Air Command be placed underground in hardened shelters to protect them from a Soviet nuclear attack thus protecting their retaliatory capability. It was noted above that this was a recommendation that Brodie had made in 1946. In ‘The Development of Nuclear Strategy’, the last article Brodie was ever to publish (1978, just before his death), Brodie reflected on Wohlstetter’s encounter with SAC and the United States Air Force, and argued that Wohlstetter was driven to publish the ‘Balance of Terror’ article by his frustration with the military planners who refused to heed his advice precisely because they were not interested in “deterrence” as he and Brodie (and the other strategic theorists) conceived of it.

8 The first of these reports is R-266 (the number which it was assigned at RAND), The Selection and Use of Strategic Air Bases (RAND Corporation, April 1954) and, the second, R-290, Protecting US Power to Strike Back in the 1950’s and 1960’s (RAND Corporation, September 1, 1956). The findings of each report are examined in detail in Chapter 5 against the backdrop of a study of the planning for nuclear war then being undertaken by the military planners in SAC, the United States Air Force, the National Security Council and the Joint Chiefs of Staff.
Thus, in analysing Wohlstetter's role in the systematisation and formalisation of deterrence theory this article, too, is considered.

Wohlstetter played an absolutely pivotal role in the systematisation and formalisation of deterrence theory, and, therefore, in the development of strategic studies. The first of his reports in particular demonstrated that systems analysis could be profitably employed in strategic analysis. This classified report, The Selection and Use of Strategic Air Bases, reported the findings of the study that had been conducted by Wohlstetter and his team into alternative basing systems for SAC's bombers (including the then-programmed system). The study considered the comparative costs of the different basing systems against the vulnerability of each to a surprise Soviet attack. The retaliatory capability of the strategic striking force hinged on the vulnerability of the bases at which it was located. Thus, the effectiveness of each basing system was judged in terms of its vulnerability for, of course, the capacity of nuclear weapons to deter an enemy nuclear attack was inversely proportional to their vulnerability. The important point here is that Wohlstetter's study helped to establish the view among the strategic theorists at RAND that quantitative strategic analysis was good strategic analysis. Systems analysis was a vehicle for the direct application to strategic analysis of the mathematical and statistical methods of neo-classical economics and econometrics. Quantitative strategic analysis systematically excluded non-quantifiable variables. Indeed, for the strategic theorists at RAND, general nuclear war between the United States and the Soviet Union came to be regarded as a type of conflict in which political, cultural and historical factors were largely irrelevant and could, therefore, be overlooked. Obviously, these factors were precisely those which could not be quantified.

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9 This point has been made by Kaplan, op. cit., pp. 109-110. Kaplan also points out that the so-called "hard data" incorporated in the report were compiled by Air Force Intelligence. The role of Wohlstetter's report in establishing the view that quantitative strategic analysis was good strategic analysis and the report's reliance on Air Force Intelligence estimates are issues which are fleshed out in Chapter 6.
The second published work to be considered is Thomas Schelling's, *The Strategy of Conflict* (1960).\(^{10}\) In this book, Schelling attempted to demonstrate that game theory could be profitably employed (by theorists, planners and policy makers) in the analysis of strategic problems such as "deterrence" (as understood by the strategic theorists) and limited war. Thus it illustrates the ease with which game theory was able to accommodate "deterrence" thinking and also how it at once structured and reinforced that thinking. (The strategic theorising done by Wohlstetter in his two reports and the 'Balance of Terror' article was also structured in terms of game theory.) *The Strategy of Conflict* is extremely important in another respect. It starkly reveals just how distant were the concerns of the strategic theorists from those of the planners and policy makers. Not only was it an extremely formalised and abstract analysis of the requirements of "deterrence", it also emphasised the point that "deterrence" required the skilful non-use of nuclear weapons which was an absolute anathema to the military planners. In analysing *The Strategy of Conflict* and Brodie's *Strategy in the Missile Age*, the point is made that both provide evidence of the extent of Wohlstetter's influence over the community of strategic theorists during the mid to late 1950s, particularly when it came to such issues as "vulnerability", the alleged superiority of Soviet strategic nuclear capabilities over those of the United States, and the likely success of a surprise Soviet nuclear strike.

It was noted above that systems analysis was a vehicle for the application of the methods of quantitative economics to strategic theory and analysis. Wohlstetter's studies had shown that in this capacity systems analysis was an extremely valuable aid to strategic analysis. As will be seen, game theory, particularly as deployed by Schelling, was no less important in this respect. Game theory treated states as unitary actors which were rational, self-interested value maximizers. It took this assumption from classical economic theory which looked at individual consumers and suppliers in just the same way. Beyond this, the mathematical

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methods of neo-classical economics enabled game theory to be used in studying the behaviour of buyers and sellers in the economic market place. By using these methods, the values or utilities of buyers and sellers could be calculated as could the payoffs (outcomes) received or earned as a result of the choices they had made. More importantly, as far as the strategic theorists at RAND were concerned, because game theory regarded states in just the same way as it regarded individual buyers and sellers, it could also be a useful tool in studying the behaviour of states, especially in situations of international conflict where the antagonists had both divergent and common interests. Schelling argued that the nuclear stand off between the United States and the Soviet Union was an almost perfect example of this type of conflict. Beyond their enmity and deep-seated animosities, he assumed that the two sides shared a powerful interest in avoiding the destruction that would ensue from an all-out nuclear war. Thus, according to Schelling, game theory could be useful in the analysis of “deterrence”, especially “mutual deterrence” and its requirements.

11 When the term “neo-classical economics” is used in this thesis it refers, as is customary, to the re-orientation in economic thinking and analysis inspired by Alfred Marshall, Leon Walras and William Stanley Jevons (who was also one of the founders of econometrics), the three figures who instigated the so-called “marginal revolution” in economics of the 1870s. The central concept of neo-classical economics is “utility”. Comments Joan Robinson: “Utility is a concept of impregnable circularity; utility is the quality in commodities that makes us want to buy them, and the fact that individuals want to buy commodities shows that they have utility.” When consumers enter the marketplace they seek satisfactions or “utilities”. The total number of units of a commodity the consumer purchases affects the amount of satisfaction or “utility” that they obtain from any individual unit such that “[W]ith the addition of each unit, it could be expected that the increment in total satisfaction (i.e. the additional or marginal utility) would decline.” This is the law of diminishing marginal utility. Because the amount of satisfaction declined with the quantity of units of a commodity purchased, the “rational consumer” would “...be prepared to pay less for the last unit than for the preceding ones and a reduction in price would be necessary to induce him to buy more.” For the neo-classicists, “...the aim and purpose of economic life is to get as much of it [i.e., utility] as possible. And, set out in a diagram, it looks just like a measurable quantity.” When utility was installed as the central concept of economics, so did mathematics become predominant in economic analysis -- a development which seemed to “...promise a new dawn for economics as a truly scientific subject.” For Jevons, indeed, mathematics (and statistics) was the key to making Political Economy into an “exact Science”, as he put it. Joan Robinson, Economic Philosophy, Penguin Books, Harmondsworth, 1964 [C.A. Watts, 1962], pp. 48, 49, 65. For the neo-classical economists, economic investigation began with the “formulation of abstract models of the economy’s behaviour in which the frictions and untidiness of the real world were neglected”, a “modus operandi” which was perfectly suited “…to the use of mathematics in economic analysis and particularly to the application of the differential calculus.” William J. Barber, A History of Economic Thought, Penguin Books, Harmondsworth, 1967, pp. 166 and 167.
The third published work to be examined is Brodie’s *Strategy in the Missile Age* (published in 1959\(^2\)). In this book Brodie publicly acknowledged that his (and the other theorists’) notion of “deterrence” was inconsistent with the planners’ notion. In *Strategy in the Missile Age*, Brodie also attempted to reconcile the two notions of “deterrence” without abandoning his belief that his conception was much sounder and more correct. He also provided a masterful account of how deterrence theory could accommodate the problems presented by tactical nuclear weapons and limited war. As will be seen, Schelling also tackled these problems in *The Strategy of Conflict*. It is argued that Schelling recognized the extent of “the gap” which divided the two concepts of “deterrence” but, unlike Brodie, was not prepared to come to any sort of accommodation with the planners. He was, to the contrary, intent on keeping the two concepts of “deterrence” as far apart as possible.

The following section considers the problems frequently confronted in writing histories of disciplines in the social, policy or applied social sciences, and the specific the problems confronted in reconstructing the history of strategic studies. It also shows how in employing the concepts of “paradigm” and “doxa” these problems can be overcome. The use of these concepts in constructing the history of strategic studies enables the content and context of the discipline each to be given the attention it deserves. It thus avoids concentrating on one at the expense of the other, a common pitfall of disciplinary history. It also enables the interaction between the “inside” and “outside” of the discipline to be explained and understood. The approach adopted in this thesis to the writing the history of strategic studies, therefore, is able to show how the “inside” of the discipline was shaped by what was “outside” and how the “inside” apprehended and sought to explain what was “outside”. In other words, this approach will enable the contributions which Wohlstetter, Schelling and Brodie each made to the development of strategic studies to be, for want of a better term, thoroughly “contextualised”.

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The history and sociology of science and the historical development of
deterrence theory and strategic studies

The problems confronted in writing the history of strategic studies are very similar
to those which are encountered in constructing the histories of other social
sciences, applied or theoretical. Prominent amongst these is the problem of what
the focus of the history should be. If the wider social and political context is the
emphasis, then sight is often lost of what goes on within the discipline. On the
other hand, if the history focuses too narrowly on what goes within the discipline,
and does so to the detriment of events and processes taking place outside, then no
understanding is developed of how the discipline connects and interacts with the
groups and institutions which are constitutive of the wider context.

This issue is taken up by Hamilton Cravens who is particularly concerned with the
writing of the history of the social sciences in the United States. Cravens observes
that “[A]rguably the term social science is a misnomer.” He suggests that “[T]he
social sciences could be rechristened the social technologies” since “[M]ost have
had a heavily applied orientation” and adds that “[F]or the most part they have
been invented and developed in response to social and public policy concerns.”

Given that the social sciences have been concerned with American “society,
economy, polity and culture” and have “played an enormous role in science,
society, and culture for much of American history” the “traditional disciplinary
focus” of historical inquiry needs to be supplemented by the incorporation of
“broader perspectives”. This is not to deny that the various social sciences have
been “sciences, disciplines, and professions” but it is to insist that “much more has
been involved” than a narrow disciplinary focus might reveal. Even more
helpful than a “broad definition” of what disciplines have been among the social

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14 Ibid., p. 183. Cravens complains that “[W]orks on anthropology, psychology, and sociology so
dominate the field [of the history of the social sciences] that it is difficult to find work on such
staple social sciences as economics, geography, and political science, not to mention such lesser-
known applied social sciences as home economics, urban planning, industrial engineering,
agricultural economics, child development, industrial engineering, rural sociology, public
administration, or agricultural engineering.” Ibid. It should also be said that strategic studies qua
applied social science or policy science has not as yet received the attention of historians and
sociologists of the social sciences it deserves.
sciences "...would be many more works than currently exist that transcend disciplinary boundaries and focus on larger problems in science, society, and culture."\textsuperscript{15} While there is no doubt, says Craven, that in the field of the history of the social sciences the "issues of disciplinary history" are important, nevertheless they are "...secondary to larger areas of inquiry, such as the invention and use of knowledge in society and culture and the constituencies and merchandisers of such knowledge."\textsuperscript{16}

Strategic studies was typical of the social sciences in the United States in that it did develop in response to the concerns of public policy, had a heavily applied orientation (even if that orientation did not register as a major influence on policy) and played a role in American society and culture. Cravens is certainly correct to emphasise the importance of these factors for histories of disciplines in the social sciences. However, the point that is missed by him is that what he calls "larger areas of inquiry" are just as much issues of disciplinary history as the narrower concerns of a "traditional disciplinary focus".

The concerns of traditional disciplinary history include "founding figures", "fundamental innovations", the emergence of canonical texts, and so on. Such history seeks answers to such questions as: "When and how does a specialised discipline come coherently together?" and "Does the process mark a cumulative development of pre-existing elements, or else mark a definite break with what went before?" In short, traditional disciplinary history focuses on the "inside" of a discipline. It is concerned with the formation of a discipline's identity and with specifying the combination of "subject-matter, methods, techniques and theories" peculiar to it and which therefore marks it off from others.\textsuperscript{17}

Traditional disciplinary history has been supplemented by an approach in which disciplines are regarded as social structures. This is a sociological approach which

\begin{footnotesize}
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\item \textsuperscript{15} \textit{Ibid.}, p. 185.
\item \textsuperscript{16} \textit{Ibid.}, p. 186.
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seeks to identify, describe and explain characteristics of a discipline such as the "...distribution of research interests and characteristic differences in work organization, publication practices, and competition through the field." While this approach presents what is essentially a "snapshot" of the state of a discipline at any one time, its historical counterpart seeks to provide an account of the development of these characteristics over time. What is common to the traditional approach to disciplinary history and an approach which regards a discipline as either a static or developing social structure is their micro-level analysis, the disregard for the "outside" or wider social and political context of a discipline, Cravens’ "larger areas of inquiry". But Cravens’ approach is equally unsatisfactory, for he is not interested in the "inside" of a discipline. But what is a discipline without founding figures, canonical texts, research interests, publications, and competition and collaboration among its practitioners? Neither the traditional approach nor an approach which regards disciplines as social structures can account for how the inside of a discipline, and a discipline as such, actually connects and interacts with the wider social and political context. Moreover, they do not explain how events, institutions and processes in the wider context bring about the emergence and formation of a discipline and mould its internal characteristics and their ongoing development. By using and articulating the notions of "paradigm" and "doxa", it becomes possible to understand how strategic studies connected and interacted with events, groups and institutions in the wider social and political context and to explain how those factors brought about the emergence of deterrence theory and strategic studies and shaped their subsequent development.

The deterrence paradigm of the strategic theorists stood between the doxa and the theory of nuclear deterrence, just as the policy makers’ and military planners’ intellectual framework of pre-emption stood between the doxa and the nuclear strategy which they formulated. “Stood between” is a shorthand locution which is to be understood as meaning that the paradigm was at the intersection of the

theorists' beliefs and assumptions about nuclear weapons and their proper purpose and the cultural assumptions and presuppositions of the doxa. The intellectual framework was at a similar point of intersection for the policy makers and planners. The cultural assumptions of the doxa were common to the theorists, policy makers and planners. But what, beyond that which has already been said, is meant by "paradigm" and "doxa"?

While in the first edition of *The Structure of Scientific Revolutions* Kuhn tended unhelpfully to use "paradigm" in quite a number of different ways, for the purposes of this introduction and thesis it is probably best to try to follow Kuhn's lead in the 'Postscript' to the second edition and to think of "paradigm" primarily in two different senses. In the first sense, "it stands for the entire constellation of beliefs, values, techniques, and so on shared by the members of a given [scientific] community" and in the second "...it denotes one sort of element in that constellation, the concrete puzzle-solutions which, employed as models or examples, can replace explicit rules as a basis for the solution of the remaining puzzles of normal science." The first sense of the term, if it is modified in accordance with Kuhn's revisions, is much nearer that which will be employed here than the latter. This is because, as will be seen below, it helps to explain the importance of the shared conceptual, analytical and broadly ideological commitments of the strategic theorists. The importance of the strategic theorists' ideological commitments to the emergence and development of strategic studies can only be understood with reference to the doxa. The first sense, more precisely Kuhn's revisions of it, therefore deserves lengthier explication.

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19 Margaret Masterman found not less than twenty-one senses of "paradigm" used in *The Structure of Scientific Revolutions*, although she groups them under three categories -- "metaphysical paradigms" or "metaparadigms", "sociological paradigms" and "artefact" or "construct paradigms". See her 'The Nature of a Paradigm' in Imre Lakatos and Alan Musgrave (eds.), *Criticism and the Growth of Knowledge*, Cambridge University Press, London and New York, 1978 (first published 1970), pp. 61-66. See also in the same volume Kuhn, 'Reflections on My Critics', especially p. 271. Kuhn corroborates Masterman's findings and endorses her categorisation.

20 Kuhn, *Structure of Scientific Revolutions*, op. cit., p. 175. Briefly, the enterprise of "normal science" can be considered as "...an attempt to force nature into the preformed and relatively inflexible box that the paradigm supplies." *Ibid.*, p. 24.
In ‘Reflections on my Critics’ and Subsection 2 of the ‘Postscript’ Kuhn sought to develop this first sense of ‘paradigm’. The ‘Postscript’ will be cited in preference to ‘Reflections’ because it is more expansive on the first sense of ‘paradigm’ (the former was written after the latter). In the ‘Postscript’, Kuhn pointed out that, in his original text a paradigm or set of paradigms was treated as the object that accounted for the “relative fullness” of the “professional communication” and the “relative unanimity” of the “professional judgments” of a scientific community.21 This, as he noted in ‘Reflections on my Critics’, was Masterman’s sociological sense of ‘paradigm’.22 However, he now thought that it was “inappropriate” to use ‘paradigm’ in this way. He also thought that ‘theory’ was not an appropriate substitute. Kuhn did acknowledge that the scientists who belonged to a “particular community” would probably say that it was a theory or set of theories which enabled them not only to communicate effectively with each other but also to reach a consensus in their professional judgements. This notwithstanding, according to Kuhn the then current use of the term ‘theory’ in the philosophy of science connoted a “…structure far more limited in nature and scope than the one required here.”23 ‘Theory’ was thus ruled out. With ‘paradigm’ and ‘theory’ both rejected as inappropriate, another term was required to denote what it was that the members of a scientific community shared, what formed them into a scientific community. Kuhn suggested for this purpose “disciplinary matrix”, and there were a number of reasons for this: “disciplinary’, because it is common to the practitioners of a specified discipline; ‘matrix’ because it consists of ordered elements which require individual specification’. He observed that the “objects of group commitment” which he had formerly described as “paradigms, parts of paradigms, or paradigmatic” were all components of the disciplinary matrix and were no longer to be considered all of a piece as they had been in his original text. The constituent elements of a disciplinary matrix included “symbolic generalizations”, “metaphysical paradigms” or the “metaphysical parts of paradigms”, values, and “exemplars”.24

21 Ibid., p. 182.
23 Kuhn, Structure, op. cit., p. 182.
24 Ibid.
With regard to symbolic generalizations, Kuhn had in mind, amongst other things, such expressions as "elements combine in constant proportion by weight" or "for every action there is an equal and opposite reaction". According to Kuhn, the general acceptance of such expressions by the members of a scientific community gave them points on which they could focus and "...attach the powerful techniques of logical and mathematical manipulation in their puzzle-solving activity." The interactions and interrelations of the entities studied by the social and policy sciences cannot be so readily expressed in such succinct, symbolic generalisations. Economics is a possible exception to this general rule, but the connection between the categories of economic theory and economic "realities" is at best uncertain. Nevertheless, because in this thesis strategic studies is treated as a vehicle for the application of the techniques and assumptions of classical and neo-classical economic theory to the analysis of international, specifically nuclear, strategy (via systems analysis and game theory), the relationship between strategic studies and the discipline of economics will be considered more fully below.

As for exemplars, Kuhn described these as "...concrete problem-solutions that students encounter from the start of their scientific education, whether in laboratories, on examinations, or at the ends of chapters in science texts." They also include "technical problem-solutions" found in the academic journals of a discipline that its practitioners consult and contribute to after their formal education has been completed. Again with the possible exception of economics, there are no obvious analogues or counterparts of exemplars in the social and policy sciences. Furthermore, canonical texts, standard training regimes based on them, and accredited schools for the training of novices or students are phenomena and institutions that characterise mature disciplinary fields. If this is so, then strategic studies was only in its infancy (or early childhood) even at the end of the 1950s. Exemplars are important for Kuhn, for he regarded them, or the

25 Kuhn, op. cit., p. 183.
26 Ibid.
27 Ibid., p. 187.
28 Writing in 1982, Colin Gray points out that "[S]trategic studies continues to lack a truly secure place in American university curricula." Gray, op. cit., p. ix. A self-professed "university teacher"
differences among sets of them, as being the basis of the “community fine-structure of science”. He observed that, while all physics students begin their training by learning the same exemplars, in later years “...the symbolic generalizations they share are increasingly illustrated by different exemplars.” In other words, as their training developed so do physics students become more specialised. The “cover-all” exemplars of the early years of training did not satisfy the requirements of the more advanced, increasingly specialized courses undertaken by students in the later years.29

It is the lack of obvious symbolic generalisations and exemplars in strategic studies--perhaps Wohlstetter’s R-266 was close to being or playing the role of a Kuhnian exemplar--which suggests that the basis of the community fine-structure of the discipline must be sought in the values and metaphysical parts of paradigms shared by the strategic theorists. However, because it is argued in this thesis that strategic studies was a discipline that was developed by the RAND strategic theorists in emulation of economics, a mature discipline possessing symbolic generalisations and exemplars, consideration will be given below to what strategic studies drew from economics and how it made use of what it appropriated.

Values are another object of group commitment. However, they are generally not the exclusive preserve of one community of scientists, but are shared among different communities. On this score, Kuhn commented that values “...do much to provide a sense of community to natural scientists as a whole.”30 Values are important at all times but particularly so, according to Kuhn, when a scientific community is in crisis and its members have to decide between ways of practising the discipline that are not compatible with each other. Accordingly, his discussion of values highlights the role they play when the members of a scientific community have to decide between competing theories. In these circumstances, simplicity, self-consistency, plausibility, and compatibility with other theories in

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30 Ibid., p. 184.
use at the time are some of the values or criteria by which theories might be judged. More to the point as far as strategic studies is concerned, Kuhn also notes that in the natural sciences the "...most deeply held values concern predictions: they should be accurate; quantitative predictions are preferable to qualitative ones; whatever the margin of permissible error, it should be consistently satisfied in a given field; and so on." As seen above, in the formative years of strategic studies if one value came to be deeply held among the strategic theorists it was that quantitative strategic analysis was far preferable to qualitative strategic analysis. It was also observed that Wohlstetter's study of the selection and use of strategic air bases did much to establish the conviction among the strategic theorists at RAND that quantitative strategic analysis was good strategic analysis. More will be said on quantitative methods and analysis in the discussion of the relationship between strategic studies and economics.

For the moment, however, attention must turn to the "metaphysical parts" of the disciplinary matrix. When he spoke of "metaphysical parts" ("metaphysical paradigms") Kuhn had in mind "shared commitments" to beliefs in particular models, either of an ontological or heuristic sort. As ever, the illustrations of his point were drawn from the natural and physical sciences. Ontological models include "heat is the kinetic energy of the constituent parts of bodies" and "perceptible phenomena" are due to "matter and force, or to fields". Ontological models, then, say something about the entities and forces that make up the world and how forces cause entities to interact. Kuhn cited as examples of models of the heuristic variety: "the electric circuit may be regarded as a steady-state hydrodynamic system; the molecules of a gas behave like tiny elastic billiard balls in random motion." Such models are heuristic because they aid in investigation and research by giving a clue as to how objects or phenomena are to be apprehended, comprehended and explained. Whether of the ontological or heuristic variety, models provide a scientific community with acceptable "analogies and metaphors". The models assist a scientific community in deciding

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31 Ibid., p. 185.
32 Ibid.
33 Ibid., p. 184.
between acceptable and unacceptable explanations and "puzzle-solutions" and help the community in determining the "...roster of unsolved puzzles and in the evaluation of the importance of each."\textsuperscript{34}

Of the four components of the disciplinary matrix discussed by Kuhn—symbolic generalizations, exemplars, metaphysical parts, and values—it is the latter two which are of most interest and relevance in an analysis of the origins and development of strategic studies. This is because, as has been seen above, strategic studies in its infancy had not produced its own symbolic generalizations and exemplars. They therefore were not among the immediate objects of group commitment in the community of strategic theorists during these early years. If this is true, and there is little doubt it is, then group commitment must have developed as the result of something like values, metaphysical considerations and the like. However, while metaphysical beliefs or assumptions may ultimately bind together the practitioners of the physical and natural sciences, it is difficult to see how in the social and policy sciences, and especially in a discipline like strategic studies, purely \textit{metaphysical} beliefs or assumptions or commitments could have played a part in fostering group commitment. Given that strategic studies came into being as the Cold War intensified and the nuclear arms race was getting into top gear, it may be more profitable to search for ideological beliefs and assumptions to account for the emergence and development of the \textit{community} of strategic theorists in the United States during the late 1940s and through the 1950s. It is certainly true that Kuhn identified important sources of group identity and commitment in the natural and physical sciences. But in order to get to the sources of the strategic theorists' group identity and commitment, Kuhn's discussion of shared commitments to beliefs has to be extended beyond the binding powers of ontological and heuristic models. This is where Pierre Bourdieu's notion of "\textit{doxa}" can be extremely useful.

Bourdieu, in his own inimitable fashion, introduced "\textit{doxa}" in the course of his discussion of the "collective belief" in the bases of science. Science, said

\textsuperscript{34} \textit{Ibid.}
Bourdieu, had no basis other than this collective belief "...which is produced and presupposed by the very operation of the scientific field." Whether or not it is possible to speak of the doxa of the scientific field taken as a whole as Bourdieu appeared to suggest, the notion can be used to account for the collective belief of the members of a particular scientific field. This is certainly true of strategic studies. The doxa referred to the "aggregate of presuppositions" which the members of a particular scientific field take to be "self-evident and outside the area of argument because they constitute the tacit condition of argument". Put more simply, the doxa is made up of "unthought assumptions". It is the source of collective belief within the scientific field. Orthodox and heterodox positions within the field are defined in terms of the doxa. Furthermore, Bourdieu asserted that the doxa:

...is constitutive of the very functioning of the field, and...bears on the totality of what is admitted by the mere fact of belonging to the field, and on the totality of what is set beyond discussion by the mere fact that the agents accept the issues at stake in the argument, i.e. the consensus on the objects of dissensus, the common interests underlying conflicts of interests, all the undisputed and unthought areas tacitly kept outside the limits of the struggle.

Bourdieu's idea that the doxa is made up of unthought assumptions, presuppositions which are regarded as being self-evident and outside the area of argument, is a very suggestive one. It clearly complements and extends Kuhn's notion of the "metaphysical parts" of the disciplinary matrix. For it goes beyond shared belief in ontological and heuristic models to account for group commitment. It might even be said that belief in these models is possible only because the doxa is already in place. Strategic studies is particularly illustrative

35 Bourdieu, op. cit., p. 34.
36 Ibid.
37 Ibid., p. 37.
38 Ibid., p. 34.
39 In this regard, even Kuhn acknowledged that, in the early stages of a science's development, "[O]nly very occasionally, as in the cases of statics, dynamics, and geometrical optics, do facts collected with so little guidance from pre-established theory speak with sufficient clarity to permit the emergence of a first paradigm." He also pointed out that "No natural history [that is, a collection of facts compiled without the guidance of pre-existing theory, such as, for example, the "Baconian 'histories' of heat, color, wind, mining, and so on"] can be interpreted in the absence of
of this point. It came into existence as the Cold War was intensifying and as the urgency and anxiety surrounding the atomic bomb and its uses in this conflict were heightening accordingly. In these circumstances, belief in abstract theoretical and mathematical models could hardly have served as the basis of group identity and commitment. Something much more ideologically and emotionally forceful was required. It was in these areas that the doxa of the deterrence paradigm was strongest. As already noted, the doxa was not the exclusive preserve or possession of the strategic theorists, but was also the preserve of the policy makers and military planners. Indeed, its assumptions and presuppositions was constitutive of the society and culture to which the powerful business, political and military elites which dominated American society all belonged.

In Bourdieuan terms, strategic studies evinced a low degree of autonomy with respect to “external determinations”\(^\text{40}\) It was established under Air Force auspices and its continued existence was highly dependent on Air Force support and funding, and, therefore, on the extent to which it was, and was seen to be, responsive to the demands of the Air Force. The dual processes of the systematisation, formalisation and institutionalisation of deterrence theory in RAND, were only made possible by Air Force, and SAC, patronage. This accounts for the extent to which “social arbitrariness” figured in the “system of presuppositions” which constituted strategic studies.\(^\text{41}\) Put another way, the constitutive presuppositions of the doxa of strategic studies expressed the fundamental interests of the Air Force and, indirectly by virtue of the doxa, the other groups which dominated American society. This was so even though the paradigm of the strategic theorists and the intellectual framework of the military planners and policy makers were at odds with one another over what the proper purpose of nuclear weapons was or should be.

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at least some implicit body of intertwined theoretical and methodological belief that permits selection, evaluation, and criticism. If that body of belief is not already implicit in the collections of facts -- in which case more than ‘mere facts’ are at hand -- it must be externally supplied, perhaps by a current metaphysic, by another science, or by personal and historical accident.” Kuhn, Structure, op. cit., pp. 16-17; emphasis added.

\(^\text{40}\) Bourdieu, op. cit., p. 34.

\(^\text{41}\) Ibid.
While the strategic theorists assumed that “deterrence” was the sole purpose of nuclear weapons, the Air Force planned for their use on the basis of the presupposition that they should and would be used pre-emptively. Thus while doxa was the common preserve of Air Force strategists, the high civilian policy makers who oversaw their activities, and strategic theorists, it was only the latter group which embraced “nuclear deterrence” as conceived by Brodie. This is why it is possible, and necessary, to speak of the doxa of the deterrence paradigm and thereby to distinguish between the doxa and the paradigm. For while the doxa lay beneath and gave legitimacy both to the intellectual framework within which Air Force strategists worked and the deterrence paradigm of the strategic theorists, it neither explicitly sanctioned the planning for the pre-emptive uses of nuclear weapons nor prescribed that theorising about nuclear weapons should be done in terms of their retaliatory capability and deterrent purposes. Standing between the doxa and the theory of deterrence was the deterrence paradigm which contained assumptions about the uses of nuclear weapons. In a sense, the paradigm contained models, not entirely of an ontological or heuristic variety, about the uses and purposes of nuclear weapons which the strategic theorists collectively embraced and which accounted for their group commitment. Similarly, the intellectual framework of pre-emption of the planners and policy makers contained specific assumptions about the uses and purposes of nuclear weapons. This will become much clearer in the next section when the paradigm, intellectual framework and doxa are fully explicated.

42 Bourdieu’s notion of the “cultural unconscious” complements that of the “doxa”. He introduces the term in a discussion of the sociology of intellectual and artistic creation. According to Bourdieu, “...it is by the extent to which he forms part of an intellectual field by reference to which his [the artist’s or intellectual’s] creative project is defined and constituted, by the extent to which he is, as it were, the contemporary of those with whom he wishes to communicate and whom he addresses through his work, referring implicitly to a whole code he shares with them -- themes and problems of the moment, methods of argument, manners of perception, etc. -- that the intellectual is socially and historically situated. His most conscious intellectual and artistic choices are always directed by his own culture and taste, which are themselves interiorizations of the objective culture of a particular society, age or class. [The objective culture]...constitutes the necessary precondition for the concrete fulfilment of an artistic intention in a work of art, in the same that language as the ‘common treasury’ is the precondition for the formulating of the most individual word.” Pierre Bourdieu, ‘Intellectual Field and Creative Project’ in Michael F.D. Young (ed.), Knowledge and Control: New Directions for the Sociology of Education, Collier-Macmillan Publishers, London, 1971, p. 180; emphasis added. The doxa, or cultural unconscious, of the deterrence paradigm and intellectual framework of pre-emption interiorized the objective culture to which the strategic theorists, military planners and policy makers all belonged.
The paradigm of the strategic theorists, its relationship to the intellectual framework of the military planners, and the doxa

A fundamental constituent element of the deterrence paradigm was the belief that the sole purpose of nuclear weapons was “deterrence, that their role, as Brodie had stipulated, was to avert general war, “conventional” or nuclear, between the United States and the Soviet Union. This rested on an even deeper assumption about the nature of nuclear weapons: that they were qualitatively different from other types of weapons, even the so-called “conventional” high explosive and incendiary bombs of the kind that had been used to such devastating effect by the US Army Air Forces in World War II. It followed logically from the founding belief that the deterrent purpose of nuclear weapons could only be fulfilled if their retaliatory capability were protected from destruction in an enemy pre-emptive strike. If vulnerable, this capability of nuclear weapons would be completely effaced. The protection of the retaliatory capability of nuclear weapons would obviate their retaliatory use or, indeed, any use of nuclear weapons by either the United States or the Soviet Union. Thus, “deterrence” and “vulnerability” were twin concepts in the deterrence paradigm. As the paradigm matured in the 1950s, strategic stability came to be equated with a “balance of terror” (Wohlstetter’s concept) or mutual deterrence. Game theory also developed into a central element of the deterrence paradigm. Ever since Brodie had first put his ideas on the military and strategic implications of nuclear weapons down on paper, a tendency to view nuclear war as a gruesome game of ping pong had developed among the strategic theorists. This was the product of there being no enemy armed with nuclear weapons in 1946. Game theory, especially in the hands of Schelling, formalised this view and made it much more of an abstraction. The equating of good strategic analysis with quantitative strategic analysis was another element of the paradigm. It has already been noted that both game theory and systems analysis served as vehicles for the application of the quantitative methods of economics to the analysis of nuclear strategy. The relationship between strategic studies and economics is taken up in more detail in the Introduction’s final section.
Game theory accommodated and reinforced the view of the conflict between the United States and the Soviet Union as a childish, eye-for-an-eye game. For example, the thinking behind Wolstetter's bases study was structured in terms of game theory. Game theory had no difficulty in accommodating the assumption, drawn from the mature doxa of the post-War era, that the Soviet Union was planning a devastating pre-emptive strike against the strategic nuclear forces of the United States that, if put into effect, would destroy them. Indeed, the theorists, policy makers and planners were, by virtue of the doxa, united in this belief.

Unlike the theorists, the planners and policy makers saw no qualitative distinction between nuclear and conventional weapons, for them there was only a difference of degree of effectiveness and efficiency. As noted above, the planners in particular came to the view that the only way to "deter" a Soviet pre-emptive strike was to pre-empt it, that is, to get in the first blow. This drew on one important element of the modern American military tradition, the conviction that the United States should never lose the initiative to the enemy and, accordingly, that if needed it should get in the first blow. The intellectual framework of pre-emption drew on other important elements of this tradition, elements which were embodied in the American plans for nuclear war with the Soviet Union. These were the belief in the military efficacy of overwhelming force; the conviction that in war the strategic objective of the United States was to bring about the wholesale destruction of the enemy's armed forces and society; and the view that war should be waged until the enemy submitted to unconditional surrender. These assumptions and beliefs were based on the confident expectation, grounded in the experience of the American Civil War and the First and Second World Wars, that the enormous productive capacity of the United States would enable it to wage war with such overwhelming force that it would be able to annihilate any enemy.

The doxa was a collection of more fundamental ideological assumptions and presuppositions than were contained either in the paradigm or intellectual framework. The assumptions and presuppositions of the doxa were mostly unthought and largely unarticulated and therefore beyond argument or critical scrutiny. These were assumptions and so on not only about the place and role of
the United States in the world, but also about the place and role of the Soviet Union and the reasons for the US-Soviet enmity. The doxa portrayed the United States as the hero, and the Soviet Union as the villain, of the post War world. According to the doxa, moreover, the history of the United States had uniquely prepared it for leadership of the capitalist world-economy and the free world, just as the history of the Soviet Union had set it on the course of totalitarianism, expansionism and tyranny.

The doxa is not for all its pervasiveness and influence resistant to straightforward exposition even though straightforward expositions of it are few in number. It is made up of a relatively few, simple beliefs and assumptions. The Soviet Union’s inexorably aggressive and expansionist propensities were believed to be the product of the avowedly Marxist and Leninist ideology of its leadership, the totalitarian nature of its state and socio-political structure, and the legacy of repression and tyranny left by the tsars. There were also believed to be longstanding and irresistible geopolitical imperatives acting on the Russian state which, when combined with these other factors, led almost inevitably in the direction of external aggression and a compulsive expansionism. Basically, according to this view of the Soviet Union, the deep suspicions and pathological hostility which the leaders of the Soviet Communist Party manifested toward any states and nations which did not willingly submit to the Soviet credo forced them to seek to dominate and rigidly control their external environment in much the same way as they brutally repressed dissent at home. The assumption that a

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43 Indeed, there is no single, authoritative source to consult for details of the doxa. The combination of elements which comprised the doxa can be pieced together from many of the references cited throughout this thesis. These include the works of the numerous American liberal historians which are cited, official documents of the US Defense and State Departments to which reference is made, and the work of the strategic theorists themselves. Arguably, NSC 68 (A joint State/Defense Department document titled 'United States Objectives and Programs for National Security', April 1950) is the most comprehensive, authoritative and influential enunciation of the mature doxa. It is cited in Chapters 1 through 5, testimony to its importance and influence.

44 Perhaps the clearest and most authoritative expression of that side of the doxa dealing with the Soviet Union is to be found in "Mr X" [George Kennan], 'The Sources of Soviet Conduct', Foreign Affairs, XXV, no. 4 (July, 1947), pp. 566-82. The policy of containment and its links with the strategy of nuclear deterrence are dealt with extensively in Chapters 3 and 4. Kennan was the architect of the policy of containment which is briefly considered below. He also did much to inculcate in the policy making and military planning circles the view that a state’s internal structure governed its external behaviour.
state’s internal structure and behaviour determined the tenor of its actions in the “outside” world was a central element of the doxa. As was the case with the Soviet Union, the external behaviour of which had internal sources and causes, so also with the United States. Hence, the nature of American political, social and economic institutions, of American society and people, supposedly determined the objectives and modus operandi of American foreign policy. Aggressiveness and expansionism were not the American way. This introduces the other side of the metaphysics or doxa of the deterrence paradigm and intellectual framework of pre-emption.

The United States was everything that the Soviet Union was not. In other words, the United States did not look upon its external environment as something that had to be controlled and dominated. Democratic political institutions and respect for the rights of the individual at home were believed to be a moderating and restraining influence on the behaviour of the American state abroad. There were believed to be no geopolitical imperatives driving the United States to expansion and conquest. American history had prepared it well for its post War role of leader of the “free world”. After all, the United States had fought a revolutionary war against an old European colonial power in order to assert and establish its independence, endured a sanguinary civil war to abolish the institution of slavery, and participated in two world wars in order to crush German imperialism, European fascism and Japanese militarism. Just as the American state and government were supposed to promote and robustly defend individual rights and democratic institutions, practices and freedoms for the American citizen, so the United States would it was believed support and vigorously defend the right to independence and self-determination of nations and peoples, unable to defend themselves, that were facing conquest, tyranny and despotism from external aggressors or straining under the yoke of colonial rule. Finally, the doctrine of free

45 The doctrine or idea of Manifest Destiny, that first appeared in the mid-Nineteenth Century (and which is examined Chapter 2), was an embryonic version of the doxa. Briefly, the idea of Manifest Destiny held that the economic success and superiority of the United States derived from and indeed proved the moral and racial superiority of its white, Protestant inhabitants and the civilisation they had built. It followed from this that the American nation, thus narrowly defined, was unusually suited to playing a leadership role in world affairs. The mature doxa emerged after the Second World War.
enterprise was believed or supposed to have unencumbered sway within the United States.

The American state sought not to interfere with the privacy and freedom of manoeuvre of capitalist enterprises, and attempted through its reluctant, ad hoc and sparing interventions in the economy merely to establish and maintained the conditions that were propitious for free enterprise. Similarly, in the outside world, the US government was supposed be the primary sponsor of unrestricted international trade and an open capitalist world-economy and to be the main opponent of protectionism and economic nationalism, which, it was believed, had threatened the existence of the world-economy and led to the rise of totalitarian states. An important corollary to this belief or supposition was the belief that an open and unrestricted world economy was the surest guarantee of international peace. In effect, little if any distinction was drawn between freedom and free enterprise. There was, then, in the doxa of the deterrence paradigm a neat symmetry between the political and economic conditions that obtained within the United States and the sort of world which it sought to create and nurture outside. Beyond the frequent admissions that the Soviet Union was the enemy and aggressor, however, most of the other elements of the doxa of the paradigm remained hidden, undisclosed and beyond the critical or even detached scrutiny of the strategic theorists. Indeed, this is the very idea that the word “doxa” is meant to convey. The doxa is made up of unquestioned and unquestionable assumptions.

While the doxa remained almost wholly beneath the surface, it was the sine qua non of the theory of nuclear deterrence. The whole idea that “deterrence” was the sole purpose of nuclear weapons was founded upon the elements that made up the doxa. The theory of nuclear deterrence had any relevance and legitimacy only in so far as the elements of the doxa, and the doxa itself, retained their currency and legitimacy. Similarly, the idea that nuclear weapons were to be used pre-emptively was supported by the doxa even though it specifically sanctioned neither “deterrence” as understood by the theorists nor pre-emptive use of nuclear weapons. The view of the place and role in the world of the United States and the view of the Soviet Union that were central to the doxa and which lay beneath the
deterrence paradigm and the intellectual paradigm, were mutually reinforcing. The doxa was thus highly resistant to change and erosion and this ensured the continued relevance and legitimacy of deterrence theory and strategic studies even though they were out of step with the intellectual framework.

This leaves open the question of how the beliefs, assumptions and attitudes that made up the doxa came together to form a coherent and, for those immersed in it, compelling view of the world and the place and role of the United States in it. What combination of factors and forces accounts for the emergence of the elements of the doxa and its subsequent maturation into a coherent view of the United States’ role in the world, if one that was not always fully and openly stated, after the Second World War? While many of these beliefs, assumptions and attitudes can be related to defining moments and events in the history of the United States--such as the War of Independence, the Civil War, and the two World Wars--the doxa is not itself a narrative account of American history. Rather, it is essentially a gloss on that history which enables its adherents to look back approvingly on America’s past and to find evidence there of America’s moral and material superiority over the decadent powers of the Old World. The doxa sanctioned the view that, by virtue of this superiority, the United States was destined for greatness and to play an authoritative but benevolent role in world affairs. This became particularly clear after the Second World War, when the United States was at the peak of its political, economic, military and ideological power and when the devastation suffered in the War by the other Western powers (including Japan) appeared to leave them highly vulnerable to “the Soviet threat”. The United States’ role in the defeat of European fascism and Japanese militarism in the Asia-Pacific provided additional sanction for the underlying assumptions of the doxa.

The wider social and political context of the mature doxa

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46 Historical works which give voice to the folklore of “deterrence” belong to a well established and much wider school or tradition of American history which is referred to in this thesis as “American liberal historiography”. Specific historical narratives of the development of deterrence theory, and of other episodes in American history, which emerge from this tradition are shaped by the doxa and are “acceptable” only if they resonate and give voice to it.
The wider social and political context of the mature doxa will be explicated and analysed in Chapters 1 and 2. Nevertheless a brief outline of the argument and analysis of those chapters will illustrate how the mature doxa emerged from that context and how, in turn, it enabled the context to be apprehended and understood in a way which supported a rosy view of American history and sanction America’s new-found place in the sun after World War II.

As a result of the Second World War, the economic, industrial, political, military and ideological power of the United States expanded enormously—and that of its chief rivals and competitors in the world-economy declined just as precipitously. In world-systems theory terms, it was now the hegemonic power in the capitalist world-economy.\(^47\) The growth of American power in the world was evidence for the veracity of the assumptions, beliefs and attitudes of the doxa that were concerned specifically with the place and role in the world of the United States. As will be seen shortly, the substantial increase in the military power and territorial extent of the Soviet Union, again a result of the Second World War, not only helped to confirm, harden and bring into higher resolution the less than

\(^{47}\) While “hegemonic power” will be defined below, “capitalist world-economy” can be defined thus: it “...came into existence in Europe in the sixteenth century [and] is a network of integrated production processes united in a single division of labor. Its basic economic imperative is the ceaseless accumulation of capital, made possible by the continuous appropriation of surplus-value...Its political superstructure is the interstate system composed of 'states', some sovereign, some colonial. The zones [territory] under the jurisdiction of these states in this interstate system have never been economically autonomous, since they have always been integrated in a larger division of labor, that of the world-economy.” Immanuel Wallerstein, ‘The world-economy and the state-structures in peripheral and dependent countries (the so-called Third World)’ in Wallerstein, The Politics of the World-Economy: The States, the Movements and the Civilizations, Cambridge University Press/Editions de la Maison des Sciences de l’Homme, Cambridge and Paris, 1984, p. 80. In Wallerstein’s conceptualisation, then, the modern world-system is a world-economy in which the ceaseless accumulation of capital has both caused and been the result of the emergence and development of the modern states system. Capitalists have shown a tendency to mobilize their states in order to improve their competitive standing in the world-economy which has had the effect of continually reproducing the states system (even though over time individual states rise and decline, come and go). A state’s strength vis-a-vis other states in the system crucially depends on the role it plays in the world-economy. And the role it plays in the world-economy will be determined by the range and types of production processes that are carried on within it. Not only is there a far greater range of economic activities carried on in the “core areas” than in the “peripheral” regions, but core production processes will incorporate labour value to a far greater degree, will be more highly mechanized and more profitable than most production processes carried on in the periphery. Capitalism does not only involve “....appropriation of the surplus value by an owner from a laborer, but an appropriation of surplus of the whole world-economy by core areas.” (Wallerstein also refers to the “semi-periphery” of the world-economy where some production activities are core-like, others periphery-like.) Wallerstein, ‘Patterns and perspectives of the world-economy’ in Ibid., pp. 15 and 16.
flattering assumptions and beliefs about Soviet Union that comprised the other half of the doxa, it was also an additional confirmation of the belief that the United States, by dint of its moral and material superiority, had grave global responsibilities to discharge. Under these circumstances, the doxa became more dogmatic and firmly entrenched than ever and licensed the United States to play the leadership and regulatory role in the world-economy that was consonant with its attainment of hegemonic power. It also sanctioned the United States to lead the global struggle against the Soviet Union. Leadership of the capitalist world-economy and leadership of the struggle against Soviet communism were overlapping, even mutually inclusive, roles and responsibilities. As will be seen below, both the policy of containment and the strategy of nuclear deterrence were designed and directed to allow the United States to play these dual roles and responsibilities. So ultimately was the theory of nuclear deterrence, even though it

48 The hegemonic power comes from the ranks of the core states. Core states are stronger than states in the periphery (and semi-periphery) by dint of their stronger and more dynamic economies and the often successful efforts of groups of capitalists living within their borders to "...ensure that the state machinery could be used to shore up quasi-monopolistic privileges for their enterprises (or to prevent others elsewhere from creating such privileges to the detriment of their enterprises)." Wallerstein, 'The withering away of the states' in Ibid., p. 50. A hegemonic power emerges in the rare situation, such as obtained at the end of the Second World War, "...in which the ongoing rivalry between the so-called 'great powers' is so unbalanced that one power is truly primus inter pares; that is, one power can largely impose its rules and its wishes (at the very least by effective veto power) in the economic, political, military, diplomatic, and even cultural arenas. The material base of such power lies in the ability of enterprises domiciled in that power to operate more efficiently in all three major economic arenas—agro-industrial production, commerce, and finance." Wallerstein, 'The three instances of hegemony in the history of the capitalist world-economy' in Ibid., pp. 38-39. The situation which obtained in the interstate system and world-economy at the end of World War II could also well be described as one of "systemic chaos". In such situations, there is a "total and apparently irremediable lack of organisation". In these circumstances a state which is in the position of being able to claim credibly that it alone can restore order and organisation to the system has the opportunity to become the hegemonic power.Giovanni Arrighi, 'The Three Hegemonies of Historical Capitalism' in Stephen Gill (ed.), Gramsci, Historical Materialism and International Relations, Cambridge University Press, 1993, p. 151 This was the situation which faced the United States at the end of World War II. The only core capitalist power which had come out of the War unscathed was the United States. The other core states of Western Europe and Japan were either in ruins or, as in the case of Great Britain, severely debilitated by the War. The growth in military power and territorial extent of the Soviet Union as a result of the War combined with the devastation in the core of capitalism ensured that military power and geopolitical factors would have the utmost importance during the period in which the United States exercised hegemony. Indeed, as will be seen below but more especially in Chapter 1, the American-sponsored economic and political rehabilitation of the core of capitalism after the War was intended, not only to revitalise the world-economy, but also to construct a perimeter of states around the fringes of the Soviet Union that would be strong enough to withstand Soviet expansion. This was underpinned by American military, specifically air-atomic, strategy which itself was founded upon the vast economic and industrial power of the United States. Such was the context in which the theory of nuclear deterrence and the discipline of strategic studies emerged.
could never play such a role. Because, of course, the policy of containment was implemented by the same policy makers who devised American nuclear weapons policy, the policy and the strategy of deterrence were overlapping, interlocking and mutually reinforcing. However, the deterrence paradigm kept the theory and the theorists marginalised and thus the theory could never play the role which the theorists intended for it—it did not guide or constitute American nuclear strategy.

The greatly expanded territorial reach of the Soviet Union at the end of World War II was the primary motivation for the adoption of the policy of containment by the United States, which is subject of Chapter 3. The containment of the Soviet Union was closely linked to the pacification of the relations between the states in the core of the capitalist world-economy—in particular, Germany and Japan—and the containment of their aggression and militarism. As will be seen, the policy of containment and the strategy of nuclear deterrence were tightly interlocked. After the War, the United States set about to reconstruct the world-economy along lines that its leaders considered would preserve peace and prosperity in the capitalist core, promote an open, buoyant and expanding world-economy, ensure high rates of economic growth and investment (and therefore high levels of employment) in the American economy, and contain and deter Soviet expansionism and aggression around the Eurasian rimland. To put it another way, the post War American reconstruction of the world-economy combined a number of strands which were interwoven into a comprehensive plan for the reinvigoration of capitalism in Western Europe, and Japan. It could be argued that, as a result of the War, the formerly core states of Western Europe and Japan had been relegated to the semi-periphery. The United States' plan involved determined steps to return Germany and Japan in particular to the ranks of the core powers in the capitalist world-economy, indeed, to rebuild the entire core on this basis. The Marshall Plan, support for the economic and political recovery of Japan (to which the Korean War gave a much-needed boost), and the primacy given to the American dollar under the international monetary and multilateral payments system that was established at Bretton Woods in 1944, and which became operational in 1947, were all key elements in the American plan for the reconstruction of the core of the capitalist world-economy under American leadership.
From an American point of view, the rehabilitation, and restoration to the capitalist core of Germany, other former combatant nations in Western Europe, and Japan were not only vital to the post War recovery of the world-economy but were also important from a geopolitical and strategic point of view. Here the formation of a Soviet bloc in eastern Europe and the territorial expansion of the Soviet Union in east and north Asia, both consequences of the critically important part it had played in the Second World War, entered the picture. The existence of an enlarged and allegedly threatening Soviet Union was a crucial factor in enabling the United States to rebuild, and to pacify the core of capitalism on a lasting basis. Japan, Germany, and Western Europe more generally were important not only because of the part they were expected to play in the world-economy, but also because they occupied key geopolitical positions with respect to the Soviet Union.

The territory and empire of the Soviet Union had expanded east and west during the Second World War. In geopolitical terms, the Soviet Union was the power which dominated the Heartland of the landmass of Eurasia. Its dominance of Eurasia was confirmed and tightened in World War II, and in the view of the political and military leadership of the United States it now presented an unconscionable threat to the powers on the rimland and offshore islands of the Eurasian landmass. Germany and other Western European countries such as France and Italy were the main powers on the Eurasian rimland and Japan was the outstanding offshore island power. (Of course, Britain was also an important offshore island power.) As seen above, the strength and vitality of the core powers were essential to the robustness of the capitalist world-economy. But strength and vitality were also essential from the point of view of preventing the Soviet Union from exploiting to its own advantage conditions of economic hardship and political instability that were the result of the war-time devastation and economic and social dislocation that had been suffered by those countries. Thus post War reconstruction in the core of the capitalist world-economy was a central concern of the overall policy of containment in which the Marshall Plan, NATO and Japanese-American Security Pact were all key elements. In the view of America's
policy makers, the containment of Soviet expansionism would have been all but impossible without a pacified but politically and economically revitalised capitalist core.

Seen in this light, and as noted above, the policy of containment and the strategy of nuclear deterrence were tightly interlocked. The policy of containment of the Soviet Union depended heavily upon the containment of the military urges and tendencies that had propelled Germany and Japan into the disaster of the Second World War. More broadly, the policy relied on peaceful interstate relations in the core of capitalism. This is where the policy of containment dovetailed with the strategy of nuclear deterrence, which is the subject of Chapter 4. Pacification of the core was greatly facilitated by the United States' assumption of the primary responsibility for the post War defence of Western Europe and Japan. Because the core capitalist powers now shared a common enemy that was not jockeying for position in the world-economy, they no longer had to be preoccupied with going to war with each other. The core capitalist powers gave themselves up as hostages to nuclear deterrence when they aligned themselves to the United States, accordingly installed the Soviet Union as their main external enemy, and agreed to turn the responsibility for their defence almost entirely over to the United States. Henceforth, the strategy of nuclear deterrence, which was primarily aimed at the Soviet Union, would also threaten the core powers of capitalism with devastation as vast as that which would befall the Soviet Union if it were ever put into effect. Of course, given the nature of nuclear weapons, this would have been the case whether or not the countries of Western Europe and Japan had acquiesced in deterrence. But the important point is that they did so acquiesce, thereby voluntarily (if not so willingly) becoming as much potential victims of American nuclear strategy as was the Soviet Union itself.

The unparalleled power of the United States and the leadership role it would play in the post War world were sanctioned by the doxa (or one part of it), and power and leadership, in turn, sanctioned the doxa. Power and prosperity were evidence of moral superiority and moral superiority legitimised power, prosperity and leadership. The growth in military power and territorial extent of the Soviet Union
legitimised the other half of the *doxa* and sanctioned an important role for nuclear weapons in the emerging Cold War. For the military planners and agencies responsible for formulating nuclear strategy and their civilian masters, the growth in Soviet power and territory sanctioned the planning and preparation for pre-emptive use of nuclear weapons and, for the strategic theorists, the same Soviet threat sanctioned the assumption or belief that “deterrence” was the sole purpose of nuclear weapons and that they should be deployed and protected accordingly. The policy makers, planners and theorists all believed that the United States had a responsibility for organising and leading the defence of “the West” against “the Soviet threat”. However, the theorists played no part in America’s discharging of this responsibility, for the deterrence paradigm stood in the way of their inclusion in policy and strategy making circles.

As important as foregoing analysis of the wider social and political context of the *doxa* of the deterrence paradigm and intellectual framework of pre-emption is to a full understanding of deterrence theory and strategic studies, it leaves unanswered some very significant questions. These questions have to do with some of the issues that have already been raised above about the development of strategic studies into a discipline in the policy or applied social sciences. Again, as seen above in the discussion of the connections between the deterrence paradigm and game theory, these questions are also concerned with how the beliefs, assumptions and attitudes of the *doxa* were incorporated *via* the deterrence paradigm into deterrence theory and the techniques and models of strategic studies. More specifically, they concern the relationship between the discipline of economics and the emergent discipline of strategic studies.

The discipline of economics was an important element of the context in which strategic studies emerged and developed. Wohlstetter, Schelling and Brodie all played their part in developing strategic studies in emulation of economics. While economics constituted the academic and theoretical context of strategic studies, it was a discipline with inflated public policy pretensions of its own. As it developed in the United States during and after the Second World War, economics became increasingly immersed in the *doxa* and was connected through the *doxa* to the
wider social and political context. Strategic studies was connected to the assumptions, theories and techniques of the economic discipline by game theory and systems analysis. Strategic studies in the 1950s became deterrence theory systematised and formalised as game theory and systems analysis were increasingly employed in the analysis of "deterrence" and its requirements. As seen above, an important element in the deterrence paradigm was the belief or view that quantitative strategic analysis was good strategic analysis. Similarly for mainstream economics, quantitative economic analysis was believed to be good economic analysis. The abstract mathematical models employed by economists meant that the advice they were able to offer public policy makers was at best problematic, at worst completely irrelevant. In the same way, the use of game theory by the strategic theorists, which comfortably accommodated the assumption that the sole purpose of nuclear weapons was "deterrence", rendered their policy advice as abstract as game theory itself.

As will be seen in the following section, where the relationship between strategic studies and economics is analysed at greater length, through the 1950s as deterrence theory was increasingly systematised and formalised so did it become increasingly irrelevant to the policy makers and military planners. The strategic theorists were conscious of "the gap" between strategic theory and American nuclear strategy and knew that through the 1950s it was widening. They believed that the policy makers, and especially the planners were dangerously misguided in emphasising the pre-emptive use of nuclear weapons and in overlooking that their purpose was or should have been "deterrence". Moreover, the theorists believed that because the methods and techniques they employed were grounded in economics, they were superior to the obsolete methods of the military profession. However, because the employment of the methods of economics increased the abstractness of strategic theory, it widened the gap between theory and practice. In the end, superiority in method and technique was preferred to relevance and influence. The gap, then, was paradigmatic for the theory and the discipline.

Strategic studies, economics and "the gap" between the deterrence paradigm and the intellectual framework of pre-emption
As a vehicle for the application of the assumptions, models and techniques of economics to the analysis of nuclear strategy, strategic studies obviously drew heavily on economic concepts, methods and techniques. Any scholarly and disciplinary integrity which strategic studies acquired, therefore, reflected the status and integrity which economics had been able to achieve for itself over many years. In this sense, strategic studies was parasitic on economics, especially that part of it which relied on quantitative methods. As seen above, quantitative strategic analysis came to be regarded as good strategic analysis. For one thing, qualitative strategic analysis was less likely than quantitative analysis to attract the attention and support of the Air Force. “Hard data” were required—even if, as in the case of Wohlstetter’s bases study, these were derived from highly suspect Air Force intelligence estimates—not historically and culturally informed, that is “fuzzy”, judgements.

Pierre Bourdieu’s critique of what he calls “official sociology” in the United States has important resonances for strategic studies. “The existence of more advanced sciences”, says Bourdieu, “is what enables official sociology to furnish itself with all the appearances of scientificity.” These more advanced sciences supply official sociology “…not only with methods and techniques, which are generally made use of outside the technical and social conditions of their applications, but also [with] examples.” By furnishing itself with the appearance of scientificity, official sociology seeks to “realise an official image of science” not to “realise itself as a science” as such.49

Similarly, strategic studies sought to furnish itself with the appearance of scientificity by taking on board the methods and techniques of economics and applying these to the analysis of situations and contexts that, on a common sense view, seemed to be well outside of the economic domain. In other words, economic concepts, methods and techniques were employed in the analysis and explanation of non-economic behaviour. This was particularly evident with game theory, which was a mathematical theory initially developed to study the

behaviour of individuals in the market place, but was believed by its practitioners to be equally useful in the analysis of behaviour in other social situations where the participants were assumed to have both conflicting and common interests. Deterrence situations were presumed to be of this type and therefore were included in game theory’s compass. Moreover, economic behaviour and “strategic behaviour” were presumed to be subject to the same conditions, opportunities and constraints--and therefore amenable to the same means and type of analysis--because states, like individuals, were regarded as rational, self-interested value maximizers. In effect, the early strategic theorists modelled the new discipline or field of study of strategic studies on the official image of economics. But what precisely does it mean to speak of strategic studies as a vehicle for the application of economic concepts and methods to the analysis of nuclear strategy?

This question can best be approached by thinking of economics in terms of a “theoretical, analytical core” and an “applied periphery”. Richard Whitley argues that, in some respects, economics is similar to physics. This similarity is particularly evident in the training which economics and physics students undergo. Recruits into physics are subjected to a “dogmatic initiation in a pre-established tradition that [they are] not equipped to evaluate.” Training in physics seeks to produce in the student “closed mental sets” and this is largely achieved by the use of “concrete problem solutions”. Similarly in economics, “...economics textbooks present the field as a fixed body of doctrines and ‘laws’ and often give students a number of highly abstract and general ‘problems’ to work through as a means of developing competence.” Such training does not put much store in the “values of accuracy, applicability, and empirical relevance”, rather it promotes the “values of


52 Kuhn, The Essential Tension cited in Ibid., p. 184.
coherence, simplicity, and formalism". As a consequence, an economics degree says much more about its holder’s competence in solving "artificial analytical problems" than it does the holder's ability to analyse and explain everyday economic events and phenomena. "The price paid by (sic) this insistence on analytical coherence and restriction [on the nature of the phenomena studied in economics]", says Whitley, "has been the increasing difficulty of using economic theory to explain empirical phenomena."53 This suggests that the applied periphery of economics, on which strategic studies was located, is virtually doomed to practical and policy irrelevance.

Not only does economics training itself effectively insulate economic theory from empirical contamination, there are other features of the discipline which push very much in the same direction. Economic theories are not tested in manner that is comparable to what happens in physics and, what is more, economics does not have "standardized means"—"skills, procedures, cognitive objects and materials"—which allow empirical studies to feed back into the "theoretical corpus". Thus, while the "applied periphery of problem fields" in economics do draw their "methods and concepts" from the theoretical core, they "...do not contribute to its modification or improvement"—and this even though there are acknowledged "contradictions and errors" in the core.55 The difficulties which economic theory faces in explaining empirical phenomena even in the economic realm are magnified out of all proportion when it is applied to non-economic phenomena and behaviour. This is certainly true of strategic studies.

Even though what is considered to be an economic problem, and what is excluded, is "largely determined by the analytical framework of neo-classical economics", factors external to economics "...do effect the range of issues tackled and policy demands lead to extensions of that framework to new areas which were not

53 Ibid., pp. 184 and 185.
54 Ibid., p. 165.
55 Ibid., p. 185. Whitley notes that there is "some scope for theoretical deviance in industrial, labour, and welfare economics". Ibid., p. 186. However, the highly formalized and standardized training which economics students receive militates against much deviation from the theoretical core even in these areas.
previously considered appropriate." The insulation of the theoretical core of economics from empirical contaminants and its extension to areas formerly not considered to be appropriate or relevant strongly suggest that the relationship between economic theory and economic policy is to say the least problematic.

As a sort of applied, peripheral subfield of economics, strategic studies encountered the same difficulties with relevance and the ability to analyse, explain and predict empirical phenomena as experienced by applications of the theoretical core in other areas. Strategic studies did not simply apply the "analytical structure" of economics to strategic topics and problems "by redescribing these in terms of concepts and categories taken from theoretical economics and 'solving' them in the way taught in undergraduate textbooks." While this may have been the case with other applications of the theoretical core, the situation was a bit more complicated for strategic studies. This was because the application of economic theory to strategic problems and topics was not immediate. Rather, it involved the application of game theory, a model or technique based on the same assumptions concerning individual human behaviour which formed the foundations of neoclassical economic theory, to the analysis of interstate conflict. More specifically, it involved the use of game theory in the analysis of the nuclear stand-off between the United States and the Soviet Union. The stand-off was redescribed and analysed in terms of games theory. In serving as a technique for the analysis of the nuclear stand-off, game theory had to conform with the deterrence paradigm--which it at the same time helped to shape--and accommodate the assumptions of the doxa. As seen above, it had no difficulty in so conforming or accommodating.

As for systems analysis, it was developed and used to study and compare the efficiency, cost-effectiveness and efficacy of competing weapons systems. Economic theory could be applied more directly here. However, it should be

56 Ibid., pp. 223-224
58 Whitley, op. cit., p. 185.
remembered that the use of systems analysis in this capacity was based on the assumption that the sole purpose of American nuclear weapons was "deterrence" which was a function of the weapons' retaliatory capability. "Vulnerability" and "deterrence" were twin concepts. Thus, efficiency, cost-effectiveness and efficacy of weapons system were calculated with this purpose and capability in mind. In other words, the encompassing deterrence paradigm shaped the uses and applications of systems analysis—and their outcomes.

The question remains of how and why economic theory, via game theory, came to be applied to problems of American nuclear strategy. This question relates to the one that was asked above about why the strategic theorists wished to portray strategic studies in the image of economics. It also relates to the question of how the strategic theorists rationalised "the gap" between strategic theory and practice. Brodie knew of "the gap" and its width. As noted above, in *Strategy in the Missile Age* he tried to reconcile the theorists' and planners' notion of "deterrence". It was also noted that Wohlstetter was driven to publish the 'Balance of Terror' article by frustration with the Air Force and SAC. As will be seen below, Schelling was also aware of "the gap".

In analysing and accounting for "the gap" it cannot be stressed enough that the strategic theorists were no less devoted to finding practicable solutions to the practical problems faced by strategists and policy makers than were the strategists and policy makers themselves. This notwithstanding, while the theorists were activated by the perceived need to protect the retaliatory capability of the strategic striking force, military planners at the Air Force and SAC were preoccupied with maximising the advantages to be gained from the pre-emptive and massive use of nuclear weapons. The chief problem here was whether the Soviet Union's capacity for making war could be destroyed early enough to prevent it from acting on the intentions ascribed to it in the intellectual framework of pre-emption (and in the paradigm and, ultimately, the doxa).

"The gap" between the theory and practice of nuclear strategy was opened by Brodie in his pioneering work on "deterrence". As suggested above, "the gap" was
paradigmatic for the theory of “nuclear deterrence” and the discipline of strategic studies. It widened with the creation of the RAND Economics Division in 1947 and from that time on it grew progressively wider. The fashioning of the discipline of strategic studies in the image of economics, and the formalisation and systematisation of the theory of “deterrence” which this involved, ensured that there would be no reconciliation of strategic theory and practice. Strategic studies, founded as it was on the assumption that the sole purpose of nuclear weapons was “deterrence”, was rendered even less relevant and more abstract by the application of game theory to the analysis of nuclear strategy. Game theory was a Trojan horse for the carriage of economic concepts and models into deterrence theory. Even more of the conceptual and methodological baggage of economics was consciously and deliberately carried into deterrence theory by those like Wohlstetter who developed and employed systems analysis.

In 1949, Brodie jumped on the economics bandwagon then rapidly gaining momentum at the RAND Corporation. In an article titled ‘Strategy as a Science’, he complained that the military profession lacked a “genuine understanding of military strategy”.59 The “development of a theoretical framework” for strategic analysis would, he thought, encourage the development of such an understanding. However, Brodie acknowledged, the “military profession [was] not a scholarly calling” and this had therefore been neglected.60 Indeed, he commented, it was true that both inside and outside of the armed services “strategy [was] not receiving the scientific treatment it deserve[d]”.61 For Brodie, this neglect became most apparent when the rapid rate of technological development was compared with the “incredible and sometimes disastrous” failure of tactical and strategic thinking to keep up. He attributed the neglect to the “absence of the habit of scientific thinking” which characterised the military profession.62 While for Brodie, many of the problems of military strategy were susceptible to analysis.

60 Ibid., pp. 467-468.
61 Ibid., p. 468.
62 Ibid., p. 473.
based on economic concepts\textsuperscript{63}, he was not implying that this or that concept "...borrowed from economics could magically resolve the strategic problems which confront us." Rather, as will be seen in Chapter 6, he was arguing that it was in the "field of methodology" that economics had the most to offer strategic analysis. Indeed, argued Brodie, strategic analysis required a "genuine analytical method" based on the theoretical framework and methods of the "science of economics".\textsuperscript{64}

Writing at the end of the 1950s, Thomas Schelling complained that, while there had been some improvement and refinement of the concept of "deterrence" since it had first appeared on the scene, the process had been far too slow and was still incomplete. Deterrence and the concepts associated with it were still "vague" and the theory of deterrence remained "inelegant".\textsuperscript{65} As will be seen in Chapter 6, Schelling thought that one of the reasons for this vagueness and inelegance was that "deterrence" could be incorporated into the framework of game theory but that game theory had not yet fulfilled the promise which it had shown immediately after the Second World War when it was first thought that it could be profitably employed in strategic analysis. However, by far the more important reason (and here his sentiments are similar to those expressed by Brodie in 'Strategy as a Science') was that the military profession, unlike other professions such as economics and medicine, had no "identifiable academic counterpart". Recently established "quasi-governmental institutions" such as RAND had begun to fill the void, but remarked Schelling, this could be "cited as evidence of the need" for an academic counterpart, not that that need had been met.\textsuperscript{66} Commented Schelling,

\begin{quote}
Those who make policy in the fields of economics, medicine, public health, soil conservation, education, or criminal law, can readily identify their scholarly counterpart in the academic world. (In economics the number of trained people who are doing research and writing books compares well with the number engaged in
\end{quote}

\textsuperscript{63} Brodie uses the concept of "marginal utility" to illustrate his point, \textit{Ibid.}, pp. 479-480.
\textsuperscript{64} \textit{Ibid.}, p. 484.
\textsuperscript{65} Schelling, \textit{op. cit.}, p. 7.
\textsuperscript{66} \textit{Ibid.}, pp. 8 and 8-9.
economic policy or administration.) But where is the academic counterpart of the military profession?  

Why did the military profession need an academic counterpart? On this score, Schelling argued that the “intellectual skills” required for using and applying force (the traditional activities of the military profession) were different from those needed for threatening the use of force (that is, for fulfilling the deterrent purpose of nuclear weapons). “Deterrence” was “concerned with the exploitation of potential force” and with”...persuading a potential enemy that he should in his own interest avoid certain courses of activity.” It followed that a fully developed theory of deterrence would, for all intents and purposes, be a theory of the “skilful nonuse of military forces” and therefore required something “broader” than the traditional skills of the military profession.

Schelling made it particularly clear that, as far as the strategic theorists were concerned, nuclear weapons were not to be used in war. As he asserted, “deterrence” was about the exploitation of the potential force of nuclear weapons, not the force of those weapons itself. Therefore, skills other than those possessed by the military planners—who were concerned with the application of actual force—were needed in order to realise the “deterrent” purpose of nuclear weapons. A decade earlier Brodie had made a similar point when he complained that the military profession was not a scholarly calling and that its members therefore lacked a genuine understanding of military strategy. Strategic thinking would, Brodie argued, benefit greatly from adopting the genuine analytical method and theoretical framework of the science of economics. Schelling was clearly very conscious of “the gap” and sought to ensure that it was not closed. Indeed, it appears that he wanted to keep the strategic theorists and military planners as far apart as possible. This suggests that Schelling had great confidence in the existing discipline and in its destiny of real relevance to the policy makers and planners.

67 Ibid., p. 8.
68 Ibid., p. 9.
Schelling's confidence notwithstanding, the application of game theory and systems analysis to the study of nuclear strategy ensured that the paradigmatic assumption of the theory of "deterrence", that the purpose of nuclear weapons was not to fight but to avert war, would be formalised and systematised and taken even further in the direction of abstraction. "Deterrence" theory and strategic studies were, therefore, unable to serve the purposes of the policy makers and, more especially, the military planners. For the strategic theorists, these purposes were misguided and, more importantly, without the sound theoretical, scientific and scholarly foundations of economics upon which systematised and formalised deterrence theory was based.

The order of business

Chapters 1 and 2 analyse the social and political context of the doxa from a historical perspective, Chapter 1 focusing on economic and military factors and forces and how they interlocked, and the latter on geopolitical, strategic and ideological factors. Chapter 1 identifies the factors which accounted for the emergence after the Second World War of the United States as the hegemonic power in the capitalist world-economy. It will be seen that the hegemony of the United States depended just as much on unrivalled military power as on unparalleled economic power. Chapter 2 identifies and accounts for the geopolitical, strategic and ideological factors and forces which have shaped and directed American history since early in the Nineteenth Century. In so doing, it traces the origins and sources of the beliefs, assumptions and presuppositions which were constitutive of the doxa, and which underpinned the policy of containment and the strategy of nuclear deterrence. It is noted that the doctrine of Manifest Destiny, which first made its appearance in the mid-Nineteenth Century, prefigured and was a precursor of the post Second World War (or mature) doxa.

Chapter 3 extends the analysis of Chapter 2 and considers the emergence after the Second World War of the policy of containment of the Soviet Union, and the socio-economic, ideological and geopolitical forces and factors which underpinned and drove the policy. It shows that the American economic, political and military elites' belief in the moral superiority of the United States, as
sanctioned by the doxa, underpinned their conviction that, after the Second World War, it was uniquely qualified to lead the capitalist world-economy and to lead the global struggle against the Soviet Union. These two leadership roles were complementary. The belief in American moral superiority, therefore, underpinned the policy of containment and strategy of nuclear deterrence. Chapter 4 considers the origins and development of the strategy of nuclear deterrence, and how the ideological and geopolitical framework of containment was mapped onto the strategy. In addition, it examines how the modern American military tradition, the origins and development of which are identified and traced in Chapter 1, informed and fed into American nuclear strategy. It does this by showing how the elements of the tradition—refusing to relinquish the initiative to the enemy, overwhelming force, wholesale destruction, unconditional surrender—became constitutive of the intellectual framework of pre-emption. It also demonstrates that, from the outset of the nuclear era, the military planners conceived of the purpose and use of nuclear weapons in entirely different terms from the theorists, that their view of "deterrence" was entirely at odds with that of the theorists. This lays the foundation for the discussion and analysis in Chapter 5 of the widening gap between the two concepts of "deterrence" during the 1950s. Chapter 4 also introduces another important distinction, that between American actual nuclear weapons policy and declaratory policy. It argues that, during the late 1940s and 1950s, American "declaratory" nuclear weapons policy in fact amounted to a refusal to offer an official definition of "deterrence" or to say anything about American intention for the use of nuclear weapons. It further argues that the theorists' concept of "deterrence" was allowed to fill the void left by this refusal, that it became in effect the unofficial declaratory nuclear weapons policy of the United States, and thus gave a completely misleading impression of the thrust and direction of American strategy. It also argues that disguising the real nature of American nuclear strategy was an important element in that strategy.

Chapters 5 and 6, which focus on the published works of Wohlstetter, Schelling and Brodie that were introduced above, are concerned with the development of the theory and the discipline. It is shown in Chapter 5 that through these publications the theorists' concept of "deterrence" entered public discourse and was allowed to
become the unofficial declaratory nuclear weapons policy of the United States. Chapter 5 also considers the growing importance through the 1950s of the notion of “vulnerability” in the theory of “deterrence” in the light of the transformation in the planners’ concept of “deterrence”. It argues that the growing importance of “vulnerability” was a vindication of the concept and theory of “deterrence” which Brodie had offered in 1946. It also shows that the growing importance of “vulnerability” in the theory of deterrence, which Wohlstetter’s classified and published work had done so much to promote, was endorsed by Brodie and Schelling. The link between Wohlstetter’s published and classified work is also considered, for, as noted above, Brodie asserted that Wohlstetter published the ‘Balance of Terror’ article out of frustration with the Air Force. This makes it clear that Wohlstetter, like Schelling and Brodie, was acutely aware of and encouraged the wide and growing gap between the theorists’ and the planners’ concepts of “deterrence”.

Chapter 6 considers Brodie’s earliest work in deterrence theory in some detail. The legacy which he left to contemporary and subsequent strategic theorists, and American strategy itself, will be assessed in the light of the comments of several authors who voice and perpetuate the folklore of “deterrence”. By examining the relevant sections of Brodie’s *Strategy in the Missile Age* and Schelling’s *The Strategy of Conflict* it also analyses how deterrence theory reacted to and sought to accommodate such problematical developments as the arrival of tactical nuclear weapons and the appearance of the notion of limited war. In this section, Brodie’s attempted reconciliation of the two concepts of “deterrence” is discussed, as also are Schelling’s efforts to keep the two concepts as far apart as possible.

In Chapter 6, the process of systematisation and formalisation of Brodie’s concept of “deterrence” at RAND through the 1950s, that is the development of strategic studies, will be analysed in some detail. In the course of this analysis, some probable reasons for the Air Force’s establishment of the RAND Corporation will be proffered. It is argued that in systematising and formalising deterrence theory, the strategic theorists sought to develop strategic studies in emulation of economics. Both systems analysis and game theory depended on the quantitative
methods of economics, and game theory was based on the same assumptions that underpinned classical economics. It will be seen that Wohlstetter's classified work did much to establish the view, so important in the deterrence paradigm, that quantitative analysis was good strategic analysis. This he did by demonstrating the usefulness of systems theory and, less directly, game theory. Schelling's analysis of game theory and "deterrence" will show that game theory was easily able to accommodate and structure thinking about nuclear weapons based on the theory of deterrence and that it reinforced such thinking. An important theme of Chapter 6 is that, as the strategic theorists became more and more conscious of the wide and widening gap between their own and planners' concept of "deterrence", so did they increasingly develop the theory of deterrence in direct opposition to the planners by systematising and formalising the theory. They also became convinced that their methods, drawn from quantitative economics, were greatly superior to those of the military profession which were dismissed as unscientific and obsolete. As noted above, the theorists apparently preferred superiority in method and technique to relevance and influence in the formulation of policy and strategy. Strategic studies crystallised into a discipline as the theorists promoted method and technique above relevance and influence.
CHAPTER 1

THE SOCIAL AND POLITICAL CONTEXT OF THE DOXA (I): 
THE ECONOMIC AND MILITARY BASES 
OF US HEGEMONY OVER THE CAPITALIST WORLD-ECONOMY

1.1 Preface

This chapter and the next are concerned with analysing the social and political context of the doxa of the deterrence paradigm. As argued in the Introduction, the doxa was common to the “deterrence” paradigm of the strategic theorists and the intellectual framework of pre-emption of the military planners. Moreover, of course, the paradigm and intellectual framework emerged from within the same social and political context. Therefore, a full understanding and explanation of the origins and sources of the paradigm, and of course the intellectual framework, are possible only if the social and political context, historical and contemporary, is itself fully understood and explained. The point of this chapter and the next is to articulate such an understanding and explanation.

In world-systems theory terms, at the end of the Second World War the United States entered a period that lasted thirty or so years during which it exercised hegemony over the capitalist world-economy. As the hegemonic power in the capitalist world-economy, the United States shouldered the responsibility of reconstructing and pacifying the core of the world-economy. The core capitalist powers had been devastated in the War. Germany and Japan were the key core capitalist powers, but France, Great Britain (not quite devastated but certainly gravely debilitated) and the other Western European powers were also vitally important. After the War, the United States also led the struggle against “the Soviet threat”. Leadership of the world-economy and leadership of the intensifying conflict with the Soviet Union were complementary and mutually reinforcing roles. Because the leadership roles of the United States were complementary and mutually reinforcing, US hegemony depended as much on unrivalled military strength as it did on unparalleled economic power.
The historical circumstances—world-economic, geopolitical, domestic—in which the United States emerged as the hegemonic power in the interstate system and world-economy account for its behaviour in that role. Accordingly, in the next section, the sources and causes of the changes in the world-economy that were taking place in latter half of the Nineteenth Century and the first part of the Twentieth will be identified and explained. The most important and far-reaching of these changes were the relative decline of Britain as the hegemonic power in the world-economy and the rise to world power status of the United States and Germany. In the world wars of the Twentieth Century, these two powers would vie with each other to be the successor to Britain as the hegemonic power. The sources and causes of the changes in the world-economy therefore help to explain why it was that the United States and Germany were the two contenders to be Britain's successor and why the United States would eventually be the victor and emerge as hegemonic power over the world-economy and interstate system.

1.2 Rise and decline in the capitalist world-economy: Great Britain, the United States and Germany

Part of the background to the rise of the United States to global supremacy is contained in the story of Britain’s gradual fall from the position of world hegemonic power. While this is not the place to consider in great detail the factors and circumstances which surrounded and contributed to that decline, nevertheless a brief review of the causes of the waning of British power will also reveal some of the more important factors behind the rise of the United States. From about 1900 Britain began to reduce the number of its overseas “defence commitments” and together these provide a good measure of the extent of its decline:

...the Western Hemisphere was left to the United States; Japan assumed the task of protecting British interests in the Far East; even the Mediterranean, the ‘windpipe’ of the Empire, became a French naval responsibility after 1912; and Fisher’s drastic reorganization of the Royal Navy saw the scattered gunboat fleets withdrawn and scrapped, and overseas stations amalgamated. The end of the age of Pax Britannica had arrived, hastened -- and in some way concealed -- by the parallel need to concentrate
more and more of the fleet in the North Sea to meet the growing German challenge.¹

As Britain cut back on its global commitments, other powers sought to capitalise on the opportunities and openings that were being created. Germany and the United States were two of the most formidable and conspicuous of these. Indeed, they were to be the main contenders to succeed Britain as hegemonic power.

While during the period of its hegemony, the “world market...[had been] first and foremost an instrument of British rule over the expanded European state system”², the compound and cumulative effect of the rivalry between the United States and Germany over which would take Britain’s place was a steady reduction in Britain’s ability to exercise control over this system. The loss of Britain’s ability to govern the interstate system had enormous and far-reaching consequences, for it “...eventually led to a new struggle for world supremacy of unprecedented violence and viciousness.”³ It was the United States’ victory in this struggle -- which was fought out in the First and Second World Wars -- that ensured it would be the successor to Britain as hegemonic power in the capitalist world-economy.

Britain had not only been the trailblazing industrial power, it had also been the hegemonic power in the capitalist world-economy at the very least since the end of the Napoleonic wars in 1815. The decline of Britain from its position of economic and naval supremacy can be dated from about the 1860s or 1870s. As suggested above, this decline meant that Britain was increasingly unable to exercise control over the European and global balances of power. This loss of control was signalled in the reduction of its overseas defence commitments, and also in the attempt by other powers to fill the vacuum and reinstitute control on their terms.

Whether from a Continental European or a global point of view, one of the most decisive developments in this regard was the “rise of Germany to world-power status”. At the turn of the Century, Britain had been compelled to reorganize and redeploy the Royal Navy in order to meet the German challenge in the North Sea. Even more serious and important than this, however, was the “virtual abandonment of ‘the British way of warfare’ [in which the Royal Navy had been the primary, and the army merely a secondary, weapon]”. Accordingly, the British government relegated the Royal Navy to a “subsidiary weapon” and assumed an “...ever-greater commitment to engage in a full-scale military campaign in Europe.” The challenge presented by growing German military power was the cause of this drastic reversal of traditional British strategy for the Continent. While German military and naval strength were growing so was its economic power also increasing. However, across the Atlantic the United States was at the same time beginning to flex its muscles for it too had risen to world-power status. The American challenge to British power was not expressed nearly so much in naval terms as the German, and not at all militarily—that is, in terms of the threat posed by a large standing army. The source of the American challenge predominantly lay in the growing size and increasing dynamism of its economy.

In the last third of the Nineteenth Century the United States economy had become larger and more dynamic than the British and was a “‘black hole’” into which “‘labour, capital and entrepreneurship” from sources throughout the world-economy -- in particular, Europe -- were almost irresistibly drawn. As for Germany, it was in a much more awkward and tenuous position in the world-economy than the United States. For, unlike the United States, in the second half of the Nineteenth Century Germany suffered a net outflow of labour, capital and entrepreneurial talent. Indeed, Germany occupied a “tributary position” in the world-economy: “...tribute to the UK as the centre of world commerce and finance was compounded by tribute to the US in the form of outflows of labour, capital and entrepreneurial resources.” Though German military-industrial capabilities

4 Ibid., p. 175.
5 Kennedy, “Mahan versus Mackinder”, op. cit., p. 56
6 Arrighi, ‘Three Hegemonies’, op. cit., p. 177
were formidable and grew prodigiously in the last third of the Nineteenth Century and in the first forty or so years of the Twentieth Century (except, for instance, in the immediate post-Versailles period), they could not fully compensate for the inferior size, position and wealth of its national economy compared with that of the United States. The unequal positions in the world-economy held by the United States and Germany would have profound consequences that will be taken up at greater length below. Still open, however, is the question of why the United States and Germany were the chief contenders to be Britain’s successor.

1.3 The United States and Germany: the origins and sources of their rivalry in the Twentieth Century

A large part of the answer to the question of why the United States and Germany were the main contenders to be Britain’s successor is to be found in the changes in the global balance of power that were taking place during the Nineteenth Century. These changes were being wrought under the combined impact of the growing importance of population size, natural resource endowment and territorial extent as criteria and determinants of state strength and power. The dramatic advances in productive efficiency, accessibility of natural resources, and transportation and communications that all accompanied the process of industrialisation largely accounted for this dramatic transformation in the calculus of state power. On this score Paul Kennedy observes that,

...while the coming of steam power, the factory system, railways, and later electricity enabled the British to overcome natural, physical obstacles to higher productivity, and thus increase the nation’s wealth and strength, such inventions helped the United States, Russia, and central Europe [Germany] even more, because the natural, physical obstacles to the development of their landlocked potential were much greater. Put crudely, what industrialization did was to equalize the chances to exploit one’s own indigenous resources and thus to take away some of the advantages hitherto enjoyed by smaller, peripheral, naval-cum-commercial states, and to give them to the great land-based states.7

Here the observation can be made that one of the burdens carried by the hegemonic power in the capitalist world-economy is the tendency of other states to emulate its success and follow in its path. This they do by imitating and improving upon the technological and organisational innovations pioneered by the hegemonic power in the areas of industrial and agricultural production, transportation and communications, and the like. In just this way, the unlocking of the quite considerable economic and industrial potential of the United States and Germany not only allowed them to catch up with Britain but to overtake it, and this before the close of the Nineteenth Century.

The point should also be made that the hegemonic power actively contributes, albeit unintentionally, to its own demise. The hegemonic power promotes and oversees openness and stability in the world-economy, and tends not to place crippling restrictions on the export of the “technological expertise” which underpinned the efficiency and competitiveness of its productive enterprises, and therefore its hegemony. At the peak of a hegemonic state’s power its productive efficiency gives it such an edge in agriculture and industry, and other key economic sectors, that it is able to compete successfully in the traditional overseas markets and even the domestic markets of its rivals. Because its industries are so efficient, it can also restrict imports from foreign producers in some cases even without imposing formal trade barriers. In short, an open world-economy pays handsome dividends for the hegemonic power -- when it is at the peak of its power. This was certainly true of Britain during the period of its hegemony.

In the first half of the Nineteenth Century Great Britain was only able to enjoy the benefits of free trade because it was the first industrial power and because the Royal Navy gave it access to all the non-European regions of the world. Free trade had given Great Britain “control over the world market” at a time when it

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Twentieth-century Britain, which is cited below. In the article, Kennedy makes it explicit that the 'naval-cum-commercial' states he is referring to are Britain and the Netherlands.

also had "mastery of the global balance of power".\(^9\) Being the only industrial power Britain was able to undersell all "her" competitors "...and the less discrimination there was, the more she could undersell." As for colonies, with the exception of India, Britain, "...did not, economically speaking, need even colonies, for the entire underdeveloped world was her colony, and would remain so if, under Free Trade, they bought in the cheapest market and sold in the dearest, which meant, if they bought and sold in the only big market there was, Britain."\(^10\) While Britain never attempted to impose the "principle of universal free trade" upon the inter-state system "[N]evertheless, by the middle of the nineteenth century the principle became dominant through the progressive opening of the British domestic market."\(^11\) However, free trade did have its downside. A flourishing export economy and incursion into rivals' domestic and traditional overseas markets did increase the revenues of the British state and swell the profits of private enterprises but also undermined the edge of its superiority, especially in the industrial, and naval and military sectors. William H. McNeill neatly summarises the way in which the diffusion, imitation and improvement of the technologies and industrial techniques developed by Britain combined to undermine British hegemony:

British strategic superiority underwent systematic erosion from the 1870s onwards. At bottom lay the diffusion of industrial techniques from the British Isles to other lands. This process went into high gear from about 1850, as Germany and the United States began to compete with, and in some lines of production to excel, British capacities and skill. In the narrower field of naval armament, too, Britain's superiority was endangered by the export of high technology to other navies. Private shipyards and

\(^9\) Arrighi, 'Three Hegemonies', op. cit., p. 173
\(^10\) Hobsbawm, op. cit., p. 232
\(^11\) Arrighi, 'Three Hegemonies', op. cit., p. 173; emphasis added. Gerd Hardach observes that Britain was able to keep and enlarge her "international creditor position" due to a "favourable balance of payments" which can be attributed to the "...high yields from her foreign investments and to income from shipping." Britain accounted for about one-third of the world merchant shipping tonnage and between 1911 and 1913 "was able to finance on average 84 per cent of her net capital exports out of the return on previous investments". Gerd Hardach, *The First World War 1914-1918* [translated by Peter and Betty Ross], Penguin, Harmondsworth, 1987 [Allen Lane 1977], p. 3. As will be seen below, however, Britain's favourable balance of payments position could not disguise the growing trade deficit in visible goods, nor compensate for Britain's increasing susceptibility to global economic downturn and mounting interstate tensions precipitated by the structural change in the British economy.
armament manufacturers based in Britain played an active role in this process.\footnote{12}

One of the consequences of Britain's relative economic decline and the reduction in its strategic superiority was that the world market, like the interstate system, naturally ceased to be as responsive to British control and manipulation as it had previously been. The loss of order in the world-market that was the inevitable result lasted from 1873 to 1948. The latter date marks the time at which the United States finally assumed its world hegemonic responsibilities. The earlier date is no less important. Giovanni Arrighi suggests that the Great Depression beginning in 1873 and coming to an end in 1896 was perhaps "both the high and the terminal point of world-market rule" as exercised by Britain. During the Depression, Europe had to rely on "massive and cheap" supplies of Russian and especially American grain. Thus the United States, Russia, and the other grain suppliers were able to take advantage of the difficulties which economic downturn had caused in Europe. Britain obviously benefited also in that it "...was the main importer of overseas grain and controlled most [of the world's] commercial and financial intermediation." Germany benefited little, if at all, because the "domestic production of grain" not the "organization of world commerce and finance" accounted inordinately for its rapid growth in wealth and power.\footnote{13} As will be seen below, Germany's dependence on the domestic production of grain had serious implications for the nature and scope of its trading relationships and therefore for its place in the European and world economies. It also had profound implications for the course taken by Germany's ruling classes to improve Germany's position. Before these are taken up, however, the implications of the developments catalogued above for Britain's position in the world-economy need to be

\footnote{12}{William H. McNeill, *The Pursuit of Power: Technology, Armed Force, and Society Since AD 1000*, Basil Blackwell, Oxford, 1983, p. 262. Hardach notes that, "[I]n the iron and steel industries as well as in the more technologically advanced sectors (the chemical, electrical and, most recent of all, the automobile industries), Britain had been outstripped by the U.S.A. and Germany. During the decades that preceded the [First World] war, her share of world trade declined from 20 per cent (1876-80) to 14 per cent (1911-13), a tendency which may be explained partly by the spread of industrialization and economic development overseas, but may also perhaps point to a relative drop in economic efficiency." Hardach, *op. cit.*, p. 3}

\footnote{13}{Arrighi, 'Marxist Century, American Century', *op. cit.*, p. 136.}
considered in a little more detail as this will provide some of the essential background to the story of the rise of German and American power and their contest for global supremacy.

Arrighi’s suggestion that the Great Depression was the climax of Britain’s world market rule is a sound one, for the obvious benefits it enjoyed obscured changes in the British economy and world-economy that were undermining its once dominant position. How was this so? Great Britain’s gradual fall from world supremacy was due to a number of factors that connected changes in the structure of the British economy with developments in the world-economy. As seen above, decline set in as larger territorial and continental states began to industrialise. Their emulation of Britain did not consist merely in a slavish copying of its model of industrialisation. As they industrialised they were able to tap far richer endowments in natural resources and employ the skills and energies of much larger populations. Advancing industrial technologies enabled them to benefit handsomely from these natural and demographic assets, but to do so from a higher technological base than had underlain Britain’s industrialisation. The greater economies of scale in the production of agricultural and manufactured goods that were made possible by the need to serve larger domestic markets could also pay dividends in the world market.

Meanwhile, these changes in the world-economy were reflected in the restructuring of Britain’s domestic economy. The loss of its competitive edge in industrial manufactures for both the world-market and the British home market was only thinly disguised by the increased revenues generated by the growing demand for the financial and banking services provided by the City of London — itself a product of the growing volume of world trade to which the industrialisation and economic growth of the United States, Germany and others contributed enormously. As suggested above, these trends were exacerbated by the anachronistic hangover of the principles of free trade.14 The principle of free trade...
trade, and the continued openness of its domestic market, ceased to pay dividends for Great Britain as the challenge mounted by its chief competitors in the world-economy became more determined throughout the latter half of the Nineteenth Century. The point is neatly summarised by Paul Kennedy when he comments that,

...the late-nineteenth-century transformation of Britain’s economy from being the industrial centre of the world to being its financial centre -- a transformation which...handsomely covered its massive trade gap in ‘visible’ goods -- meant that it was much more dependent upon international prosperity, much more a hostage to a continuing boom in global trade, and therefore much more vulnerable economically to the shock of war and the collapse of international credit, than those more tightly controlled, protectionist -- one might say, mercantilist -- economies of Germany, Russia, the United States and the other Great Powers (which is not to say that they would not have their own economic problems in wartime).15

A matter remarked upon only cursorily by Kennedy will be taken up at greater length below. This has to do with the protectionist, even mercantilistic, tendencies displayed by the United States (along with a number of the other Great Powers) in the period of Britain’s decline. This has to be emphasised, for throughout much of its history the United States has been ruthlessly economically nationalistic and this was no less true of the period of its hegemony than it was at the end of the Nineteenth Century. Indeed, its active support for an open world-economy after

shake them from their commitment to Free Trade. The vastly increased naval and military expenditures called for in the immediate pre-World War I period presented a challenge to Free Trade that could not be ignored. In short, defence procurements were prohibitively expensive and the state therefore needed to intervene far more directly in the economy than it had ever done. Hobsbawm, op.cit., p. 239

15 Paul Kennedy, ‘Strategy versus Finance in Twentieth-century Britain’ in Kennedy, Strategy and Diplomacy op. cit., p. 96. Kennedy also comments that later in the Nineteenth Century, Britain had become the victim of “foreign tariffs, ‘dumped’ manufactures and cheap agricultural imports”. Ibid. Giovanni Arrighi observes that the Great Depression of 1873-96 had the effect of reducing the price of British exports such that their value stagnated even while their volume increased. Returns on overseas investments were increasingly unable to make up for the shortfall. In the 1860s continental Europe and the United States absorbed over half of British foreign investment, but by the 1880s they accounted for less than a third. They were replaced by Latin America and the Dominions which “while geographically more extensive, were economically more restricted” and thus “...could not support the weight of a growing trade deficit as well as provide a surplus for new investment.” Giovanni Arrighi, The Geometry of Imperialism: The Limits of Hobson’s Paradigm (translated by Patrick Camiller), New Left Books, London, 1978, pp. 72-73.
the Second World War was matched by the measures it took to protect the American economy and to shield American enterprises from undue competition in overseas and domestic markets. In any event, it is the circumstances surrounding the decline of Britain and the rise of the United States and Germany, and the reasons for America’s competitive edge over Germany, that are of most concern at present.

It hardly needs to be said that the state with the largest and most dynamic national economy in comparison with all others had the best chance of "...replacing the United Kingdom at the centre of the global networks of patron-client relations that constituted the world-market."^16 Here the United States had a considerable advantage over Germany. The sizeable natural and demographic assets it possessed were greatly augmented by the large inflows of the factors of production that were remarked on above, and also by the series of territorial enlargements which its leaders orchestrated during the Nineteenth Century. These territorial additions, which proceeded right up until the late 1890s when Hawaii was annexed, were augmented by what William Appleman Williams calls America's "non-colonial imperial expansion" in the Western Hemisphere and into east Asia.^17 The Nineteenth Century territorial enlargement and imperial expansion of the United States will be examined in much greater depth in Chapter 2. Territorial enlargement and imperial expansion together make up an extremely important component of the (historical) social and political context of the doxa. An examination of them will also show just how deep-seated were the geopolitical assumptions of the doxa and how long standing was the belief in the moral superiority of the United States, a belief that sanctioned its pursuit of great

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^16 Arrighi, 'Three Hegemonies, op. cit., p. 177. It has to be emphasised here that the above discussion concentrates on the comparative strengths and weaknesses of the United States and Germany. There is certainly no intention to deny the prodigious scale of German economic growth and industrial development compared with the other European powers. In The Rise and Fall of the Great Powers, op. cit., Paul Kennedy catalogues the combined German states' economic and military strengths vis-a-vis France at the time of the Franco-Prussian War (1870-71) at pp. 240-241 and provides impressive statistics demonstrating Germany's "astonishing economic growth" and military-industrialisation from about 1890 at pp. 270-277.

material wealth and power. It was precisely this belief that justified America's assumption of the leadership of the world-economy and of the struggle against the Soviet Union after the Second World War. Moreover, this examination will further reveal the deep historical foundations beneath the interlocking of the economic and military bases of American hegemony.

The above notwithstanding, the point which has to be made right here and now is that the United States solved what Arrighi calls its "Lebensraum [living space] problem" in the first four or five decades of the Nineteenth Century. American "territorialism" involved the conquest of territory within the United States itself, not abroad. After the War of Independence, the territorial growth of the United States did come at the "expense of the native populations and the other colonial peoples of America (French and Spanish)"18, but did not of course entail trespass on the homeland territories of any of the Great Powers of the Old World. Arrighi points out that American territorial expansion was circumscribed more by internal limits than external barriers. While Cuba was to be occupied by American forces during the Spanish-American War in 1898, earlier in the Nineteenth Century the northern states had resisted pressure from the southern states to annex Cuba as a "new slave territory" because the North "...feared a change in the relationship of forces between the free states and the slave states."19 The victory of the Union in the American Civil War opened and facilitated the final chapter in the "internal" territorial expansion of the United States. In the thirty or so years after the Civil War, the construction of an extensive network of railways and the opening up of vast tracks of land for farming, cattle grazing, and urban settlement would see the rapid European "colonization" of the internal territories acquired earlier in the Century.20 Abroad, there were a number of island annexations (such as of Hawaii), and Alaska was purchased from Russia. But, as will be seen in the following chapter, of equal geopolitical and strategic significance was the path of "informal-type" or "non-colonial imperial" expansion down which the United

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18 Arrighi, *Geometry of Imperialism*, op. cit., p. 82
States enthusiastically travelled in the latter half of the Nineteenth Century and the early part of the Twentieth. The situation was altogether different for Germany.

In the lead up to the First World War, Germany had “...neither the world-wide, comprehensive trading connections nor the strong creditor position that would have enabled her to lay serious claim to the status of an economic world-power.” One of the main reasons for this was that German external trade was concentrated on the Continent. Thus, while the volume of that trade was not “significantly less” than Great Britain’s, German exports were not able to compete with British exports in markets beyond Europe. Germany’s pre-World War I ‘military-industrialisation’ and territorialist ambitions represented a fraught response to its relatively weak position in the European economy and world-economy. For Germany, a national strategy of territorial expansion-through-conquest, which its rapidly growing military-industrial power enabled it to pursue, was the only means by which it could possibly convert weakness into strength. Indeed, Arrighi locates the origins of the desperate and relentless search for Lebensraum during the first half of the Twentieth Century in the ultimately fruitless attempt by Germany’s leaders to turn “...rapidly increasing military-industrial capabilities into a commensurate increase in their command over world-economic resources.”

Germany’s search for Lebensraum entailed a “redivision of the world” which was necessary for the “expansion of its own nationality”. It went down the path of "nationalist imperialism" in order to secure a “lasting hegemonic position”, at least in Europe. However, there were a number of reasons for its failure to achieve this position.

The European and global geopolitical situation presented a formidable impediment to Germany’s imperial ambitions. German territorial expansion in Europe did entail trespass on the homeland territories of some traditional Great Powers (France and Russia in particular). Colonial expansion outside of Europe

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21 Hardach, op. cit., p. 3  
23 Arrighi, Geometry of Imperialism, op. cit., pp. 81 and 88
was also fraught with danger and frustration, for Germany was a late comer to the race for overseas colonies and thus almost any attempt by Germany late in the Nineteenth and early in the Twentieth Century to seize colonies involved the intrusion into spheres of influence or colonial territories already possessed by other powers. In the end, Germany’s “quest for hegemony” unified “old and new powers in a rival bloc against it”. Britain and the United States were troubled by and profoundly opposed to “Germany’s aspirations to domination of the seas”, while France and Russia were both threatened by its drive to “continental hegemony”. Of course, Britain and the United States were obviously also opposed to this drive for, had it been successful, it would have tipped not only the European but also the global balance of power very much in Germany’s favour.

The defeat of Germany in World War I radicalized German nationalist imperialism. The idea or ideology of Lebensraum was transformed into the “doctrine” of the grossdeutsches Reich which was a “...kind of Germanic ‘Monroe Doctrine’ which inspired the expansionism and racism of the Nazi State.” However, the European and global geopolitical situation which Germany faced in the Second World War would make its quest for hegemony even more difficult than it had been in the First World War. Its expansionist goals, and those of its allies, brought a combination of forces to bear against it which in the end would prove to be insurmountable. The Axis Alliance which grouped Germany, Japan and Italy and their respective expansionist ambitions together--Germany (to begin with) in western and eastern Europe and the Soviet Union, Japan in east and south east Asia and the Western Pacific, and Italy in the Balkans, north Africa and the

24 Paul Kennedy observes that “[A] venture into Latin America could only be pursued at the cost of war with the United States. Expansion in China had been frowned upon by Russia and Britain in the 1890s and was out of the question after the Japanese victory over Russia in 1905. Attempts to develop the Baghdad Railway alarmed both London and St Petersburg. Efforts to secure the Portuguese colonies were checked by the British. While the United States could apparently expand its sphere of influence in the western hemisphere, Japan encroach upon China, Russia and Britain penetrate into the Middle East, and France ‘round off’ its holdings in northwestern Africa, Germany was to go empty-handed.” Kennedy, Rise and Fall, op. cit., p. 274

25 From 1897 Germany began directly to challenge Britain’s naval supremacy. See Paul Kennedy, ‘Strategic Aspects of the Anglo-German Naval Race’ in Kennedy, Strategy and Diplomacy, op. cit., pp. 129-160

26 Arrighi, Geometry of Imperialism, op. cit., p. 88

27 Ibid.
horn of Africa—drove Britain, the United States and the Soviet Union into the Grand Alliance. Germany, and its Axis partners, could not match the combined human and material resources of these three powers, particularly those able to be marshalled by the United States and the Soviet Union.

As observed above, the fierce contest for world hegemony between the United States and Germany in the Twentieth Century was triggered by Britain’s decline in the last third of the Nineteenth Century. In this contest, the size, wealth and dynamism of the American economy would steeply and decisively tip the scales in its favour and against Germany. In World Wars I and II, the rapid militarisation of American industry enabled the United States quickly to transform itself into one of the world’s greatest military powers (unlike the First World War, after which it extensively disarmed, following World War II it remained the world’s greatest military power). This was so even though on both occasions the United States was a latecomer to hostilities. German territorialism and ‘military-industrialisation’ constituted an ultimately unsuccessful attempt to compensate for its relative economic weakness. The German predicament is well summarised by Michael Geyer:

Germany’s development after unification [1871] rested on the twin pillars of its economy and its intellectual life, not on arms. But these sources of strength were also sources of German vulnerability. In a narrow military sense, these consisted in Germany’s geopolitical situation in the center of Europe, which was exacerbated by the growing reach and destructiveness of weapons, and by Germany’s dependence on markets and food stuffs beyond its control. In a wider social and political sense these weaknesses consisted in a loss of autonomy of the new nation-state and in an increasingly internationalized economy and in the dependence of society’s well-being on global market conditions.28

Germany’s strengths were never enough to compensate for its considerable weaknesses, even when its leaders attempted to use those strengths to embark on a

campaign of territorial conquest which was hoped to convert weakness into strength. Territorialism and empire-building in the end greatly over-stretched German resources, especially in the Second World War when it found itself up against the combined might of the USSR and the USA. The situation was altogether different for the United States. American territorial expansion did not bring a coalition of forces against it which would prove to be insuperable. Net inflows of labour, capital and entrepreneurship added enormously to the size, wealth and vitality of the American national economy. The American Civil War unified the national economy and put it under a single political jurisdiction. All in all, the growing size and increasing dynamism of the American economy in the second half of the Nineteenth Century laid the foundations for America’s rise to the position of hegemonic power in the capitalist world-economy which it assumed in the middle of the Twentieth. However, only after two world wars would German nationalist imperialism be conclusively defeated, and the challenge of America’s chief rival for hegemony thereby finally put to an end.

It was remarked above that for most of its history the United States’ intervention in the world-economy has been characterised by a ruthless economic nationalism. The course of that economic nationalism will be followed in the next section. It will be argued there that after the Second World War, when the United States took on the mantle of hegemonic power in the capitalist world-economy and set about to reconstruct the core of the world-economy, it promoted the liberalization of intra-European trade. The European powers were also encouraged and coerced to open their economies to American exports and direct foreign investment, but the United States did not reciprocate by opening its economy to European exports and investment. As was the case for most of its earlier history, in the era of American hegemony the United States was relatively autarkic. This is one important point where American hegemony sharply diverged from British hegemony. The reasons for this divergence will be highlighted in the following section.
1.4 The United States in the world-economy: protectionism and free trade

Throughout the Nineteenth Century and well into the Twentieth successive American governments vigorously pursued a policy the main objective of which was to exclude foreign imports from the American home market while at the same time keeping the door open to "foreign capital, labour and enterprise." "By the time the struggle for world supremacy began", comments Arrighi, "the US domestic economy was well on its way to being the new centre of the world-economy, connected to the rest of the world-economy not primarily by trade flows but by more or less unilateral transfers of labour, capital, and entrepreneurship flowing from the rest of the world to its political jurisdiction." A similar point is made by Stephen Gill, who observes that the rise of the United States to world hegemonic power was not simply based on the productiveness and efficiency of the American economy and its capacity for drawing in foreign investment—vitally important as these obviously were. Perhaps as significant a factor was the ability of the United States "...to attract foreign skilled and unskilled labour."30

Douglas Dowd presents a litany of individuals, policies and Acts which are all indicative of the mercantilistic trend which runs through American history. His list extends from the "...Embargo Act of 1807, through the 'Buy American' Campaigns of the 1830's, the 1890's and the 1930's; from the geographic expansion that has characterized our [American] history from its first moments up to the present; from [Washington's] Secretary of the Treasury Alexander Hamilton to Nixon's Secretary of the Treasury John Connally."31 In a very interesting

29 Arrighi, 'Three Hegemonies', op. cit., p. 177
31 Douglas F. Dowd, The Twisted Dream: Capitalist Development in the United States Since 1776 (Second ed.), Winthrop Publishers, Inc., Cambridge, Mass., 1974, p. 232. The Monroe Doctrine, Manifest Destiny and other expressions and rationalisations of American geographic (territorial) and non-colonial imperial expansion will be discussed in the following chapter. Such expressions and rationalisations were precursors and components of the doxa. John Connally, appointed US Secretary of the Treasury in December 1970, was an interesting, if not eccentric, mouthpiece of American economic nationalism. His appointment, "...gave to a blunt, defiant jingoist the critical responsibility for economic relations within the American-led alliance." Gabriel Kolko, Vietnam: Anatomy of War 1940-1975, Unwin Paperbacks, London and Sydney, 1987, p. 349. Comments Jerry Sanders, "[T]he [Nixon Administration's] strategy of financing the [Vietnam] war through inflation exacerbated an already negative U.S. trade balance, the burden of which was passed
passage, Edward Mead Earle unearths an "irony of history" in Jefferson's and Madison's protectionist and nationalist policies, policies that went much further in the direction of mercantilism than anything their political opponent Alexander Hamilton was able to implement. Earle writes,

[T]he Embargo, which Jefferson initiated in December 1807, the Non-Intercourse Act, and the succeeding war with Great Britain, upon which Madison reluctantly embarked, had the practical result of closing virtually all avenues of foreign trade and making the United States dependent upon its own resources for manufactures and munitions of war. The industries which were born under the stress and necessity of the years 1808 to 1815 were the infants to which the nation gave protection in 1816 and in a succession of tariff acts thereafter.\(^\text{32}\)

While the United States was able to take full advantage of Britain's increasingly self-defeating commitment to the principle of free trade during the last third of the Nineteenth Century, it never moved far in that direction itself. This was so even in the Twentieth Century when its economic power had become a manifest reality, not merely a potentiality. When it seemed willing to relax its protectionist stance slightly, considerations of gain and self-interest were very much to the fore.

One particularly clear example of this was the passing of the Reciprocal Trade Agreements Act and the creation of the Export-Import (Eximbank) in 1934 in line with a proposal that had been put forward by then Secretary of State Cordell Hull.

along to America's trading partners when the Nixon Administration made the unilateral decision to suspend the convertibility of dollars to gold and to impose a 10 percent surcharge on imports. The U.S. move abruptly ended the 1944 Bretton Woods agreement on which the international monetary system had been founded. It also smacked of protectionism, which if emulated, could lead to economic autarky and a balkanization of the capitalist alliance. Treasury Secretary John Connally...seemed to relish his self-described role as 'the bully boy on the manicured fields of international finance', justifying the protectionist measures on the grounds that, 'We had a problem and we're sharing it with the world, just like we shared our prosperity.'" Quoted in Jerry Sanders, *Peddlers of Crisis: The Committee on the Present Danger and the Politics of Containment*, Pluto Press, London, 1983, p. 174

Behind these initiatives lay the realisation that expanded foreign markets needed to be found for American agricultural and manufactured exports and a confidence in the ability of American industry to compete successfully with its foreign rivals in an open world market. This was after all the rationale behind the Open Door policy in China earlier in the Century (to be examined in the next chapter). However, the point to remember is that the RTAA and Eximbank (and the 'Open Door'!) did not, to any significant extent, open the door of the American domestic market to foreign competition and an unrestricted inflow of overseas imports. On the contrary, mutual tariff reductions separately negotiated by the United States with each of the eighteen nations (mainly but not exclusively from Latin America) who agreed to the RTAA's "reciprocal trade clauses", and the loans issued by the Eximbank to the governments of these same nations were designed to open their markets to American exports and to finance purchases of manufactured goods from American companies. Indeed, "...the new Export-Import Bank was set up as a means to shift foreign investment risks to the state, while at the same time, as J[ohn] F[oster] Dulles observed...'allowing foreigners to acquire goods for which domestic consumers would otherwise have to be found.'" In any event, the mercantilistic and autarkical themes that ran through American foreign trade policies before the War continued into the post-War era. John Connally's behaviour as Secretary of the Treasury (described in note 31) is merely an extreme and in some respects perversely comical manifestation of these tendencies. While the United States attempted to keep its economy protected from foreign incursion, it nevertheless sought to promote openness in the world-economy. There were important "ideological dimensions" to the emphasis which American policy makers put on an open world-economy, for they saw a "...close fit between free markets, political liberty, and international peace." Some of the ideological dimensions that linked free markets with international peace are sometimes somewhat apologetically taken up by experts on American history such

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as, for example, John Lewis Gaddis. In discussing the principle of free markets, he comments that “[T]he United States has long called for a reduction of barriers to trade and investment throughout the world, on the grounds that humanity at large would benefit if individual producers were free to concentrate on what they could most efficiently produce.” The adversity to “economic nationalism” was also motivated by the belief that international economic interdependence and cooperation would eliminate one of the primary causes of war. This belief, an important component of the doxa, was a powerful ideological motivation behind the steps taken by the United States after the Second World War to pacify interstate relations in the core of capitalism. As already suggested above, “the Soviet threat” could be very useful in attempts to bring about and maintain peace in the core. This point will be pursued at greater length below in the section on American hegemony in the world-economy.

One author who had no doubt whatever about the connection between economic nationalism and war was Edward Mead Earle. He blamed the “economic nationalism of the fifty years beginning in 1870” for the appearance of “totalitarian economies, the totalitarian state, and totalitarian war” and on this basis condemned the “revival of mercantilism in the modern world”. According to Earle, the “mercantilists of old” would have been horrified in the degree to which the “new mercantilism” had “enlisted the power of the state for the further enhancement of state power”. Moreover, the new mercantilism, whose rise Earle attributed to figures such as Alexander Hamilton and Friedrich List, was much more dangerous than the old, not only because it operated “in our highly organized and closely integrated society”, but also because it was “warp and woof with the war system”. “Whatever may have been the virtues of mercantilism in the seventeenth and eighteenth centuries”, pronounced Earle, “its modern counterpart has been an incendiary force in a highly inflammable and explosive world.”


Whether Earle viewed the mercantilistic policies of the United States in such a highly critical light, or even whether he would have acknowledged them as being so, is a moot point. In any event, Earle was of course not alone in attributing creeping state centralization, the rise of totalitarianism and the occurrence of war to the increasing tendency to adopt such measures during the 1930s. Cordell Hull, US Secretary of State from 1933-1944 (who had proposed the 1934 RTAA), and those of his ilk, propounded a similar view. "In the cruelest terms", says Gabriel Kolko, "to the Hullians the basic source of world conflict was trade and economic rivalry, and if nations could unhamper free trade, then they would automatically attain peace."^38 Both Gaddis and, as noted above, Earle had to admit, however, that throughout its history the United States had sought to protect its domestic economy by imposing high tariffs on foreign imports. In contrast to Earle though, Gaddis observes that the "connection between trade, investment, and economic development was less than clear" and the "historical record suggested little correlation between extensive economic interchange and the avoidance of war". Acknowledging that the "doctrine of 'free' trade brings disproportionate benefits to the most efficient producer", Gaddis goes on to remark that "Americans' disinterested endorsement of the 'open door', therefore, served their self-interested ambition to expand markets, investment opportunities, and profits."^39 The timid (or coy) use of the word 'disinterested' is indicative of a conservative and patriotic genre in American historical scholarship of which Gaddis is such an outstanding representative. This genre will be considered in the next chapter in the context of an examination of the causes and implications of American territorial aggrandizement during the Nineteenth Century.

The point to be emphasised here is that, notwithstanding America's equivocal commitment to free markets and an open world economy, "[T]he world system established under U.S. hegemony was not even free-tradist, as was that established

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^38 Gabriel Kolko, *Main Currents*, op. cit., p. 221.
^39 Gaddis, *op. cit.*, p. 10; emphasis added
under British hegemony in the nineteenth century." There is no doubt that after the Second World War the United States did seek to liberalize world trade but, as with the measures associated with the establishment of the Export-Import Bank and the RTAA in the 1930s, "...did so through bilateral and multilateral negotiations rather than through unilateral measures, as Britain did in the 1840s when it repealed the Corn Laws and Navigation Acts." Indeed, the United States seemed more intent on liberalizing intra-European trade than international -- US-European -- trading relationships, its main objective apparently being to "...guarantee an 'open door' -- not primarily to trade but to capitalist enterprise, particularly against threats of nationalization." The likely reason for this was that "...direct investment rather than trade had become the main weapon of U.S. core capital in international competition and, from this point of view, some measure of protectionism would enhance its competitive edge." This is a long way indeed from a "disinterested" endorsement of the "open door", for keeping the door open to American investment directly served American interests as of course it had been calculated to do.

After the War, growth in the American economy was the driving force of "sustained momentum" in the world-economy. A thriving world-economy made it possible for the Western Europeans and the Japanese to rebuild their economies and "...to reconstruct their productive forces on US mass-assembly [Fordist-Taylorist] principles and to achieve the recovery 'miracles' of the late 1950s." The inordinate influence of the US economy on the economies of the other core capitalist states, and on the world-economy generally, was a function of its "uniquely asymmetrical insertion" in the world-economy. This asymmetry is to be explained in the following way:

...on the one hand, its [the American economy's] absolute contribution to world trade and investment was sufficiently large to produce dynamizing demand and supply effects; on the other, it was relatively autarkic

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41 Ibid.
42 Ibid.
compared to the rest of the OECD countries (until 1970 only 7 per cent of the US GNP circulated in the world market) and, therefore, could flexibly accommodate the increasing shares of Western Europe and Japan in world manufacturing trade. Unlike earlier mercantile-colonial eras, its hegemony was not founded on a rigid preeminence in world trade, but on the maintenance of robust conditions of accumulation within the domestic economy.43

The United States had an each way bet on free trade. It unabashedly encouraged and coerced others to open their markets to American exports and investment while it simultaneously sealed off its domestic market from would-be intruders. Nevertheless, at the end of the Second World War, the United States did take decisive action to establish a liberalized world trading order. A liberalized world trading order was vital to the post War reconstruction and revitalisation of the core of the capitalist world-economy. While the United States headed the world-economy, it was not predominant in world trade. Its hegemony was based not on foreign trade but on the size and performance of the domestic American economy.

The American and British hegemonies differed in respects other than the level of their commitment to free trade. In the following section these differences will be highlighted and explained, for they indicate the extent to which the world-economy had changed from the mid-Nineteenth Century to the mid-Twentieth. For one thing, the United States had to reconstruct the core of the world-economy out of the disruption, dislocation and devastation caused by two world wars, and the period between the Wars in which the unity and openness of the world-economy had virtually been destroyed by rampant economic nationalism in the core. As suggested above, America’s policy makers identified economic nationalism as being the cause of totalitarianism and war. The reconstruction of the world-economy which they sponsored after the Second World War was predicated on the belief that a slide back into economic nationalism and world war had to be avoided at all costs. The bipolar division of the world into competing socio-economic, geopolitical and ideological blocs was also a factor which sharply

separated the American and the British hegemonies. It was this bipolar division which ensured that there would be such a close and strong convergence of reconstruction and pacification of the core, and containment of the Soviet Union. It also ensured that the strategy of nuclear deterrence would be a factor of great importance in American hegemony. The interlocking of the economic and military bases of the hegemony of the United States was a function of its dual leadership of the world-economy and leadership of the anti-Soviet struggle.

1.5 American hegemony over the world-economy: modes of accumulation and modes of production

"During the Second World War, indeed," comments Paul Kennedy, "only the United States -- like Britain 150 years earlier -- had really been powerful enough to be able to keep economic and strategical requirements in harmony, due to industrial productivity, military successes and a clever quasi-mercantilistic commercial policy." As has been argued above, World War II was the event that finally unleashed the formidable productive and destructive energies of the United States and thrust it to the summit of world power. After the War, industrial productivity, astute quasi-mercantilism (or "new mercantilism") and overwhelming military power underpinned America's hegemony over the capitalist world-economy. The Second World War was also of course the event that conclusively ended Germany's nationalist imperialist bid for European, and global, hegemony. During World War II the Soviet Union was transformed from a great power into a military superpower. With the destruction of the German and Japanese empires came the extension of the Soviet empire into eastern and central Europe and its consolidation in the far east. The later victory of the communist forces in the Chinese civil war owed much to their role in the defeat of Japanese militarism on the mainland of Asia. American hegemony, therefore, did not imply leadership of a capitalist world-economy in which all national economies were either fully or willingly integrated within it. Nor under these circumstances could the world-market simply be the instrument of the United States' rule over an interstate system whose extent was global as had been the case for Britain.

44 Kennedy, 'Strategy versus Finance', op. cit., p. 106
What was peculiar about the period in which the United States enjoyed world supremacy was the bipolar division of the world along the deep geopolitical fracture that had been opened by the conflict between the US and the Soviet Union. The havoc wrought by the Second World War in the capitalist world-economy -- the crushing of Germany and Japan, the exhaustion of Britain, and so on -- in combination with "the Soviet threat" provided the opportunity for the United States to pacify relations between the core capitalist states. United States' leadership of the capitalist world made it possible to equate its self-interest with the interests of the system as a whole and of the other core states that participated in it. Naturally, the beginning and early years of the Cold War, when tensions between the United States and the Soviet Union were at their peak but the Soviets ill-prepared for war, when the other core capitalist states were at their weakest and the United States at its strongest, was the time when its leadership and dominance were most pronounced. This was the period in which the United States reconstructed and reorganised the core of the world-economy. What were the basic outlines of this reorganisation? These can best be discerned by comparing the basic features of the American organisation of the world-economy with the British -- and with the interregnum between their hegemonies. The interregnum will be taken up first.

In the words of John Lovering,

[T]here is...abundant evidence to suggest that World War 2 marked a transition from one conjuncture to another. The mechanisms of the previous conjuncture, such as acquisitive militarism, autarkic imperial markets, and confrontational class relations, were replaced by a new set. These included internationally interdependent state economic management, foreign exchange convertibility, the cross penetration of national markets by multinational capitalist enterprises, internal class 'compromises', and the integration of military activities within blocs dominated by the US and the USSR.45

The "previous conjuncture" to which Lovering refers is the interregnum in the world-economy that spanned the loss of global supremacy by the British and the assumption by the United States of world-hegemony. Earle spoke for many pre- and post War American policy makers in arguing that during this interregnum economic nationalism became rampant in the major capitalist powers, the trend reaching its high point during the 1930s culminating in world war late in the decade. As argued above, British decline became an irreversible but gradual downward slide during the Great Depression that ended in 1897. By the turn of the Century, Britain, by renouncing previous defence commitments, signalled the growing disharmony between its strategical and economic capacities and requirements. However, neither the United States nor Germany was then in a position to assert its bid for world power.

During the interregnum, anarchy and disorder prevailed in the world-economy. The external trading policies of the core capitalist powers, inspired as they were by economic nationalism and "neo-mercantilism" -- and the "mechanisms" identified by Lovering -- destroyed the unity of the world-economy. This tendency reached its peak in the 1930s when even Britain went some distance down the protectionist road. As a result of the Ottawa Agreements of 1932, Britain, the self-governing dominions and later the dependent colonies were formed into a trading bloc which was protected from foreign competition by high tariffs. The United States had been protectionist throughout most of its history, and American protectionism and economic nationalism were thus only intensified and hardened during the Great Depression of the 1930s. Of the Great Powers, Germany's rulers were perhaps the most economically nationalistic of all. As seen above, in the First and especially the Second World War they unsuccessfully sought, through territorial expansion by conquest, to seize the resources and expanded labour force needed to establish the basis for Germany's lasting hegemonic position in Europe, and the world. Germany's rulers promoted autarkical economic development, but

46 However, as van der Pijl observes, in an agreement struck in 1934 between the United States and Britain and extended to France in 1936 "mutual consultation in advance of parity changes" was stipulated "as a means to facilitate the flow of trade and payments." This prefigured the Bretton Woods system of the post-War era. van der Pijl, op. cit., p. 103
ultimately German autarky, unlike America's, was based on nationalist imperialism -- territorial conquest and German domination of conquered lands and peoples. This path to power only succeeded in forcing Germany's enemies to enter into military coalitions the defeat of which was beyond German capabilities on both occasions of world war in the Twentieth Century.

This still leaves open the question of how the British organisation of the world-economy differed from the American. It has already been seen above that under US hegemony the world-economy was not free tradist as it had been under the hegemony of Britain. There were of course other differences between the two hegemonies. The main features or "mechanisms" of the British organisation of world political-economic space will now be briefly highlighted as a prelude to a much lengthier consideration of the arrangements for the world-economy put in place by the United States.

The period of British hegemony over the world-economy, coinciding "with the Gold Standard and an international balance of power" over which Britain exercised control, stretched roughly from 1815 (or perhaps earlier) to 1873. One of the "unavoidable economic activities" of the British government, even at the high point of laissez faire and free trade, was in maintaining the stability of the pound sterling "...mainly in the interests of British international trade and finance." The "gold standard", which was a "fixed and rigid relationship between the unit of the currency and a fixed quantity of gold", had been the basis of this stability since early in the eighteenth century. Between 1863 and 1874 the major European powers adopted the gold standard for their currencies (the United States was a "partial exception" to this trend). This facilitated and simplified the operation of a "single free and multilateral system of world trading" that was

47 Stephen Gill and David Law, 'Global Hegemony and the Structural Power of Capital' in Gill (ed.), Gramsci, Historical Materialism and International Relations, op. cit., p. 96
48 Hobsbawm, op. cit., p. 235
49 Ibid., p. 236. The "gold standard" had broken down only twice before 1931, 1797-1821 and 1914-25. On these two occasions it had been reimposed, but the slump of 1931 "killed it for good". Ibid.
increasingly centred on London. During the epoch of British hegemony a "liberal mode of accumulation" or "extensive regime of accumulation" was dominant in the capitalist world-economy. The liberal mode of accumulation was characterised by smaller and more competitive business enterprises, "less

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50 Ibid., p. 140. Hobsbawm comments that the free flow of goods did not survive the onset of the Great Depression of 1873-96, the free flow of labour, and people in general, was only curtailed in the First World War and the period following, and the free flow of capital and payments survived until 1931 -- "though it was increasingly shaken after 1914". Ibid.

51 The "liberal mode of accumulation" was succeeded by the Fordist mode of accumulation -- "corporate liberalism" -- which is examined below. In the interim, the liberal mode went through a period of crisis -- the interregnum -- that coincided with the breakdown of the unity of the world-economy under the pressure of economic nationalism. "Liberal mode of accumulation" and "corporate-liberalism" are van der Pijl's terms and are preferable but in some ways analogous to the French Regulationist School's "extensive" (liberal) and "intensive" (Fordism-Taylorism) regimes of accumulation. Brenner and Glick comment that "[E]ach regime of accumulation represents a distinct pattern of economic evolution which, though limited in historical time, is relatively stable." Further, a regime of accumulation is associated with a particular mode of regulation: A mode of regulation "...is constituted by a historically developed, relatively integrated network of institutions that reproduces the fundamental capitalist property relationships, guides the prevailing regime of accumulation, and helps make compatible the myriad decentralized decisions, potentially contradictory and conflictual, taken by the economy's individual units." A regime of accumulation and its associated mode of regulation together constitute a "mode of development." Robert Brenner and Mark Glick, 'The Regulation Approach: Theory and History', New Left Review, no. 188 (July/August 1991), pp. 47 & 48. The version of 'Regulation Theory' to which Brenner and Glick devote all their attention receives its "founding statement" in Michael Aglietta, A Theory of Capitalist Regulation: The US Experience, Verso, London, 1979. This version of regulation theory has been employed and further developed in the works of Alain Lipietz, Robert Boyer and others. However, Gill and Law (op. cit., p. 95) attribute the terms to M. De Vroey, 'A Regulation Approach to the Interpretation of the Contemporary Crisis', Capital and Class, vol. 23, 1984. (Interestingly, in 'The Debt Problem, European Integration and the New Phase of World Crisis', New Left Review, no. 178 (Nov./Dec.1989), Lipietz does not even refer to the work of Aglietta, nor for that matter to Boyer.) All this notwithstanding, in this work Taylorism and Fordism are regarded as fundamental elements in the global hegemony of the United States. It therefore locates its analysis of Taylorism and Fordism predominantly at the level of developments in the world-economy. On the contrary, the regulation school largely ignores the world-economy and instead conceptualizes the history of capitalism "...as a progression of institutionally determined, nationally situated modes of development". (Brenner & Glick, p. 111; emphasis added) For instance, in Lipietz' view, Fordism is not an "international regime of accumulation" but rather "a world configuration that temporarily guaranteed the comptatability of a juxtaposition of similar regimes of accumulation with different growth rates...which were inserted into the international framework in different ways" (Lipietz, Mirages and Miracles: The Crisis of Global Fordism, 1987 cited in John Lovering, 'The Atlantic Arms Economy: Towards a Military Regime of Accumulation', Capital and Class, no. 33, Winter 1987, p. 144.). Given its "state-centrism", regulation theory is not equal to the task of analyzing or explaining the place and role of the hegemonic power in the world-economy. World hegemony must be understood as a social structure, an economic structure, and a political structure -- "it cannot be simply one of these things but must be all three" -- and "...as an order within a world-economy with a dominant mode of production which penetrates into all countries and links into other subordinate modes of production." Robert W. Cox, 'Gramsci, Hegemony and International Relations: An Essay in Method' in Stephen Gill (ed), Gramsci, Historical Materialism and International Relations., op. cit., p.62; emphasis added. See also his 'Structural Issues of Global Governance: Implications for Europe' in the same volume, pp. 259-289. Gill and Law contrast the state-centric nature of much regulation theory with Cox's approach on p.95.
capital-intensive forms of production” and a narrower “domain of state intervention” than in the new mode that would become dominant during the interregnum and especially under American hegemony. The liberal mode of accumulation, and British hegemony, was associated with what Stephen Gill and David Law call a “doctrine of economic liberalism” and what Giovanni Arrighi terms the “principle of free trade” (which was considered in the first section of this chapter).52

The “mechanisms” of the “new conjuncture” listed by Lovering were all extremely important in the reorganisation of the core of the world-economy undertaken by the United States after the Second World War. American hegemony “was characterised by more capital-intensive, mass productions systems and a gradual rise in real wages” and “was accompanied by wide-ranging state intervention, especially as regards monetary and macroeconomic management”, the growth of the welfare state, and corporatist planning.53 In other words, during America’s period of tenure as hegemonic power in the capitalist world-economy, Fordism-Taylorism and Keynesianism became dominant in the economies of the core capitalist powers. The Bretton Woods system (taking the place of the “gold standard”) was introduced, the United States entered into what might be called “integral or organic alliances” with the other core capitalist states, and “the West” was “...counterpoised to the Soviet bloc of ‘existing socialism’ and China.”54 However, the problem with Lovering’s characterisation of the new conjuncture is that it offers no explanation of how these mechanisms and arrangements interconnected with one another in the new conjuncture, that is, the hegemonic order of the United States. While he does intimate that the new conjuncture had economic, social and political structures he gives no clue as to how they came together to form that new conjuncture. This is largely because he fails to analyse them at the level of the world-economy. More particularly, he does not even mention the hegemonic order of the United States (beyond a passing reference to its and the Soviet Union’s military bloc) and the Fordist-Taylorist mode of

52 Ibid. and Arrighi, ‘Three Hegemonies’, op. cit., p. 173
53 Gill and Law, p. 95
54 Ibid.
production which was the dominant mode of production within it. In the following section, Fordism-Taylorism is analysed as a constitutive element or “mechanism” of the hegemony of the United States. In analysing Fordism-Taylorism in this way the economic, social and political structures of American hegemony will be identified and the way in which they interlocked explained. This analysis will also demonstrate the crucial importance of the military and ideological/cultural structures of US hegemony. The military strategy employed by the United States during the Second World War, and the strategy of nuclear deterrence it adopted and developed after the War, derived a number of their key elements from Fordism-Taylorism. This further emphasises the inter-locking of the economic and military bases of US hegemony.

1.6 Fordism and Taylorism: a new mode of accumulation

In the United States during the 1920s, there developed a new mode of accumulation that was based on the development “...of a strongly internationalist automotive complex”. The historically unique feature of this new mode of accumulation was that it “...allowed a class compromise between capital and labour to be constructed around a common interest in a rising rate of exploitation [rate of surplus value].”\(^{55}\) Fordism and Taylorism are the common expressions denoting this “revolution in industrial and social relations.”\(^{56}\) The mass production of “complex commodities” (or, “mechanical consumer durables”) like automobiles which was the hallmark of Fordism entailed a sweeping transformation of the old mode of accumulation: by tapping “the reservoir of cheap unskilled labour”, the “resistance of skilled labour-power to the subordination of capital” was broken and the rate of exploitation was dramatically increased.\(^{57}\) The internationalist automotive complex of industries was closely related to, but not to be confused with, the internationalization of American finance capital. After the Civil War, when the United States went through a boom in railway construction, “...an Atlantic circuit of money developed” whose centre of gravity crossed the Atlantic from London to New York at about the time of the

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\(^{55}\) van der Pijl, *op. cit.*, p. 90  
\(^{56}\) Arrighi, ‘Crisis of Hegemony’, *op. cit.*, p. 58  
\(^{57}\) van der Pijl, *op. cit.*, pp xv and. 91
First World War. This circuit was interrupted in the 1930s and 1940s when the
unity of the world market was fragmented by the protectionist and mercantilistic
policies of the major capitalist powers -- and, of course the Second World War.
However, it re-emerged at the end of the War as an important element of
American hegemony.\textsuperscript{58} The Bretton Woods system and overseas direct investment
by major United States firms were highly significant in this regard. The
internationalisation of the industries associated with the production of automobiles
occurred under quite different circumstances. It can be dated from 1909 when the
growth of the “transportation, machinery, oil and chemical industries” began to
outpace that of the American iron and steel industry. Leading the way in this
development was the automobile industry with Henry Ford at its head. It was in
this period that the latter industry “...embarked on a course of international
expansion which would make the bourgeoisie associated with it part of the mass
of interests which in the later stages of the New Deal [during the late 1930s and
early 1940s] threw in its weight for the international extrapolation rather than
national consolidation of Fordism.”\textsuperscript{59}

Robin Murray, too, points to the revolutionary nature of the Fordist production
system. The system was highly capital intensive and therefore the initial costs of
setting it up were formidable. However, the economies of the system were also
impressive, and were derived from the scale of production that was made possible
by the standardisation of products, the mechanisation of formerly manual tasks,
the use of scientific management (Taylorism) to redesign the tasks that remained,
and the conversion from nodal to flowline assembly.\textsuperscript{60} Taylorism, like Fordism,

\textsuperscript{58} Ibid., pp. xiii-xiv for much of this information.
\textsuperscript{59} Ibid., p. 78. By “international expansion” is meant overseas investment and the development of
mass markets for automobiles in foreign countries. The Ford Motor Company, for example, “has
had an assembly plant in Europe since 1911”. Richard J. Barnet & Ronald E. Muller, \textit{Global
\textsuperscript{60} Robin Murray, ‘Fordism and Post-Fordism’ in Stuart Hall and Martin Jacques (eds.), \textit{New
Times: The Changing Face of Politics in the 1990s}, Lawrence and Wishart (in association with
Marxism Today), p. 38-39; According to Gramsci, “Taylor is in fact expressing with brutal
cynicism the purpose of American society -- developing in the worker to the highest degree
automatic and mechanical attitudes, breaking up the old psycho-physical nexus of qualified
professional work, which demands a certain active participation of intelligence, fantasy and
initiative on the part of the worker, and reducing productive operations exclusively to the
mechanical, physical aspect.”, ‘Americanism and Fordism’ in Gramsci, \textit{Selections From the
involves the considerable deskiUng of the production-line worker, for the tasks required to be performed by each of them were merely simple, repetitive actions in a long chain of operations down which the product passed until it was fully assembled. As Murray observes, “[L]ike Taylorism, mass production had taken the skill out of work, it fragmented tasks into a set of repetitive movements, and erected a rigid division between mental and manual labour.” Moreover, in the mass production system human beings were treated as “interchangeable parts of a machine”, each worker being paid for the job they performed rather than in accordance with “who they were”.61

While it is a debatable point whether Taylorism and mass production were novel because under each people were paid for the job they did rather than who they were, Murray is certainly correct in pointing to the treatment of manual workers as interchangeable parts of a vast machine over which they individually had very little control. This notwithstanding, when the workers determined on a course of collective industrial action the story was entirely different. Bringing vast numbers of workers together into a large plant created the problem of the “mass worker” for management. However, this is where so-called ‘class compromises’ enter the picture.

An integral element in Fordism was the payment of comparatively high wages, a strategy that was designed to shift the focus of labour’s concerns from production and the workplace to the realm of consumption and home life. As this strategy came to be employed in other industries a transformation in patterns of

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consumption occurred and a mass market was created "...for the new lines of production with which Fordism was or came to be associated (mechanical consumer durables)." Murray observes that the "contractual core" of Taylorism was the payment of higher wages "in return for the managerial control of production". Managerial control, and the separation of mental from manual tasks were fundamental elements of the system. Taylorism, because it separated "design" from "execution" established "...for the first time, the necessity of management contributions to production" "...since if Taylorite systems were installed, production was now impossible without management’s co-ordinating and design functions." Once workers accept that management properly have control over the shop floor, "...they have, in effect, abdicated from any questioning of, or resistance to, many aspects of their domination" and thus "[r]esistance, when it occurs will be largely about details" not about the important things like investment decisions and who makes those decisions. Management’s “unique expertise and responsibilities” underpin its “major and critical claims to authority over the shop floor” and help to establish its “control over the workforce.”

In the United States, and to a lesser extent Britain, after the Second World War a national system of collective bargaining developed in which industrial unions negotiated with management for wage hikes based on productivity increases. Here, the car industry set the standard for other industries. In the US,

[T]he AFL [American Federation of Labor] and CIO [Congress of Industrial Organisations] both supported labour-saving mechanization in exchange for pay rises for the stably employed workers forming their core constituencies. ...Eventually, this compromise also functioned in the context of the internationalization of American capital, making the AFL and CIO junior

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63 Murray, op. cit., p. 40
64 Littler and Salaman, ‘op. cit., p. 259. Littler and Salaman also remark that important in gaining the consent of workers to the authority of management are “...ideologies of technocracy, with their attendant insistence on the neutrality and inevitability of modern, scientific, rational, technologies and social structures.” Ibid., p. 258. For more on the hierarchisation and bureaucratization of management under Taylorism see Arrighi, ‘Marxist Century, American Century’, op. cit., pp. 146-147
65 Murray, op. cit., p. 40
partners in the post-war organization of an informal American empire.\textsuperscript{66}

Ford also realised that mass consumption, so central to the mass production system, was highly sensitive to falls in demand occasioned by general economic downturn or the personal and family misfortunes suffered by individual workers. Making consumer credit widely available was one of his creative solutions to this problem. The use of "mass advertising" to sustain demand for mechanical consumer durables, and mass-produced and standardised products of all kinds, also became an important technique for sustaining demand in the era of mass consumption. On a far grander scale, "Keynesian demand and monetary management" and national wage and welfare policies became important instruments for stabilising markets after World War II.\textsuperscript{67} It was not until after World War II that the American government developed "systematic" (Keynesian) policies "...to maintain demand and thereby support the mass market." The main impetus for this development was of course the Great Depression which had "clearly demonstrated the inability of the private sector of the economy to maintain continuing growth of a complex, highly differentiated mass production, mass distribution economy."\textsuperscript{68} The Second World War, too, had demonstrated the indispensable role of the American state in the economy.

In the United States, the development of Fordism was assisted by the protectionist measures that had traditionally been used to shield the domestic market from foreign competition and that at the same time had allowed American exports into foreign markets. This enabled car makers and other "mass producers" to recover their fixed costs in the domestic market and to compete in the world market "...on the basis of marginal costs...or through the replication of existing models via foreign investment."\textsuperscript{69} As seen in Section 1.4, after the Second World War, direct

\textsuperscript{66} van der Pijl, op. cit., p. 97
\textsuperscript{67} Murray, op. cit., pp. 39 & 40
\textsuperscript{69} Murray, op. cit., p. 39
foreign investment became the major weapon used by “US core capital” against its competitors in the world market and protectionism gave it a greater competitive edge than it would otherwise have had. Once the United States had secured its hegemony over the world-economy, a “spectacular increase” in U.S. direct foreign investment was unleashed and in its train the “rapid transnationalization of the industrial, commercial, and financial operations of U.S. core capital” followed.70

1.7 American hegemony, the “power bloc” in the American state and the post War development of an Atlantic historic bloc

Within the American state, a “power bloc” to use a Poulantzian term, started coming together from about the time of Roosevelt’s New Deal in 1933.71 The power bloc coalesced around what van der Pijl calls “corporate liberalism”. He defines corporate liberalism as the “...synthesis between the original laissez-faire liberalism of the liberal-internationalist fraction [of the bourgeoisie -- that which had become associated with an Atlantic circuit of capital from the turn of the century]...and the state intervention elicited by the requirements of large-scale industry and organised labour, which in the period between the wars accompanied various forms of class conciliation generally referred to as [national] corporatism.”72 (The specific composition of the power bloc will be examined a

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70 Arrighi, ‘A Crisis of Hegemony’, op. cit., p. 58

71 The term “power bloc” designates a “specific alliance of dominant classes and fractions [of the dominant classes]”. Nicos Poulantzas, ‘Introduction: Social Classes and Their Extended Reproduction’ in Poulantzas, Classes in Contemporary Capitalism (translated from the French by David Fernbach), Verso, London, 1978. According to Poulantzas, the bourgeois or capitalist class is made of fractions drawn from both monopoly and non-monopoly capital. Monopoly capital is the “...outcome of the concentration of industrial capital, in particular of the amalgamation of several productive units and productive capitals under a single economic ownership”, while non-monopoly capital “...does not extend this integration under a single economic ownership, so that its typical production unit is generally restricted to a specific labour process, or a series of definite processes.” Nicos Poulantzas, ‘The Contradictions Among the Bourgeoisie Today’ in Ibid., pp. 111 & 141. The leadership of the power bloc is provided by the “hegemonic class or fraction” which, in contemporary capitalism, is drawn from monopoly capital. The state represents the common “long term political interests” of the different fractions in the power bloc. Poulantzas, ‘Some Notes on the Bourgeoisie Personnel’ in Ibid., p. 184. While the hegemonic fraction can at times be distinct from the governing fraction this has not “prevented an objective correspondence between state policy and the interests of the hegemonic fraction.” Ibid., p. 183. It is argued in this chapter that the corporate-liberal fractions of US capital comprised the hegemonic fraction in the power bloc and that members of those fractions also belonged to the governing fraction. In other words, members of the corporate-liberal power bloc occupied key positions in the American state, particularly after the Second World War.

72 van der Pijl, op. cit., p. xiv
little further on.) The class conciliation or 'class compromise' which is central to
corporate liberalism is that which is associated with Fordism: an increasing rate of
exploitation and greater regimentation of labour under management control in
return for higher wages and improved standards of living.

This notwithstanding, the "democratic universalism" Woodrow Wilson had
pioneered was ultimately as important as the Fordist class compromise in meeting
the challenge of socialism and no more so than after the Second World War. The
United States had entered the First World War under the banner of Wilson's
'Crusade for Democracy' with the purpose of outmanoeuvring the Bolshevik
Revolution. By accommodating some demands being made by the opponents of
capitalism which did not threaten the integrity of the capitalist system--like that
for national self-determination, for example--it attempted to tame and impede the
spread of socialism, not eliminate it altogether. The hope was that socialism
would lose its attraction for the working classes and therefore eventually run out
of steam. During the Second World War, especially by way of the Lend-Lease
policy, the "national-corporatist" mould of the New Deal was broken and a more
"liberal-internationalist" orientation adopted. This policy "...inaugurated an era in
which the two elements in combination--the generalization of Fordism and an
offensive diplomacy of Wilsonian inspiration--materialized as a process of class
formation on the North Atlantic level, guided by successive formulations of
Atlantic unity."74

There were in fact three diplomatic "offensives" conducted by the United States to
enforce closer Atlantic integration and all were launched by Democratic
administrations. The Lend Lease policy was the first and the post War Marshall
Plan the second of these offensives. The three offensives marked periods when a
corporate-liberal power bloc had the ascendancy in Washington and each occurred
during a critical stage of war or cold war. Roosevelt's notion of "Atlantic

73 Ibid., p. xv. According to van der Pijl, another important reason for US involvement in the First
World War was the shoring up of "...regimes of bourgeois Europe in which American bankers had
invested a large part of the savings entrusted to them by the properties classes of their country." Ibid.
74 Ibid., pp. xv-xvi
Universalism” was hatched during the Second World War and involved using Lend-Lease as a weapon to force Great Britain and the Soviet Union to comply with the United States’ plans for an open world-economy in the post-War era. With respect to the former, the offensive was successful for after the war it led to the end of the doctrine of Imperial Preference and the abolition of the sterling bloc that the doctrine had helped to create. This coincided with the introduction of the Bretton Woods system (to be analysed below) which the Soviet Union refused to join. The second offensive was associated with the Marshall Plan and was packaged under the rubric of “Atlantic Union”. The Marshall Plan of 1947 is of special interest because it reveals the emergence of a mature and cohesive corporate-liberal power bloc and the immense influence it had in the shaping of the post-War foreign, military and economic policy of the United States.

In the words of Giovanni Arrighi,

[The Western European recipients of the original Marshall Plan had exhausted themselves in a mutually destructive war that left them all relatively powerless vis-a-vis U.S. political and economic might. In addition, they were ruled by classes strongly motivated by a capitalist recovery that promised to buttress their tottering internal hegemony and to reestablish their power and status in the world-economy.]

The Marshall Plan, whose official title was the European Recovery Program, was an extremely important element in the global hegemony of the United States and its geopolitical expression, the doctrine of containment (to be extensively studied in Chapter 3). In Jerry Sanders’ view, the Marshall Plan represented the economic pillar of containment, the “universalistic language” of the Truman Doctrine (also to be examined in subsequent chapters) gave voice to its political dimension,

75 Roosevelt signed the Lend-Lease (Aid to Democracies) Bill in March 1941. Under the destroyers-for-bases deal of September 1940, Britain had agreed to lease six western Atlantic bases to the United States for ninety-nine years (two others were given as a gift) and in exchange received “fifty old but serviceable American destroyers” pre-dated Roosevelt’s signing into law of the Lend-Lease (Aid to Democracies Bill) in March 1941. Peter Calvocoressi and Guy Wint, Total War: Causes and Courses of the Second World War, Pelican Books, Harmondsworth, 1974 [Allen Lane The Penguin Press, 1972], pp. 197. and 198

76 The third was launched by the Kennedy Administration and was called “Atlantic Partnership”. Its purpose was to restore Atlantic unity in the wake of the formation of the EEC. This was the most dangerous threat yet to American hegemony.

"...and the nuclear annihilation of Hiroshima and Nagasaki served as a reminder of the military mainstay that anchored the new world order of containment."\(^7^8\)

The Marshall Plan was part of an American offensive that sought to integrate the Atlantic economies of Western Europe and North America. It also sought greater political, social and military cohesion between them. Behind the Marshall Plan was a growing European trade deficit (and American trade surplus) which left the depleted European economies with insufficient currency reserves to pay for American exports. \(^7^9\) But the massive influx of American dollars into Europe which was facilitated and administered by the Marshall Plan had purposes other than providing the Europeans with the money to pay for US goods. Incorporating Western Europe into an Atlantic economy and giving it the wherewithal to meet the "socialist challenge" were equally important objectives. If these objectives were to be realised, the export of the "American mode of accumulation" and the "restructuration of European class relations to resemble the US pattern" were "mandatory".\(^8^0\) This is the reason that direct foreign investment, which encouraged the diffusion of Fordism and Taylorism, was such an important weapon in the establishment of the US hegemony. In Arrighi's view, at the end of the Second World the countries of Western (minus Britain) Europe and Japan occupied a semi-peripheral position in the world-economy. With the help of US economic and military aid, which in many ways helped to create favourable conditions for the "immigration" of direct US investment (and also "subcontracting and joint venture arrangements"), they quickly moved back to the core position they had once enjoyed. Japan was a special case for it remained closed to these capital exports. As was the case with West Germany, after 1947 the "policy of penalizing Japan was replaced by a strategy of its controlled integration into a United States-led bloc", but "...it was not to recover economically until the Korean war gave it the necessary environment for its 'economic miracle'."\(^8^1\) Important, too, in the return of the countries of Western

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\(^{7^8}\) Jerry Sanders, *Peddlers of Crisis*, op. cit., p. 11
\(^{7^9}\) *Ibid.*, p. 35
\(^{8^0}\) van der Pijl, *op. cit.*, p. 146
\(^{8^1}\) Kolko, *Main Currents*, op. cit., p. 359
Europe and Japan to the core of the world-economy were the considerable reserves of entrepreneurial talent and skilled labour they possessed which contributed to their receptiveness to the immigration and implantation of Taylorism and Fordism.82

Seen in this light, the Marshall Plan was "...the first important step in exporting American accumulation conditions."83 It also signalled the growing political influence of the corporate-liberal fraction of United States capital. A crucial initiative of the Marshall Plan was that organised by the Technical Assistance and Productivity Program which saw to the export of the "complete inventory" of Taylorism and Fordism to Western Europe. As van der Pijl observes,

[The key component of Marshall Plan hardware deliveries in this context was the technology of continuous wide-strip mills for the steel industry. These advanced means of production were capable of producing large quantities of cheap sheet steel for automobiles and household appliances, and, thus, were instrumental in subordinating the traditionally reactionary steel industry [that is, the steel industries of the recipient countries of Western Europe] to the system of relative surplus-value production, while at the same time consolidating the subordination of the US steel industry to the powerful automobile groups by cheap exports.84

The US aid given to "other industrial countries" was conditional upon them purchasing, or accepting, "...capital goods that embodied technologies requiring or favouring Taylorization and Fordization of production." As the unity of the world-economy was restored, and inter-enterprise competition was intensified through the effects of direct investment, so did the diffusion of Fordism and Taylorism accelerate.85

82 Arrighi, 'A Crisis of Hegemony', op. cit., pp. 72-73
83 van der Pijl, op. cit., p. 148
84 ibid., p. 149. Also included in this "complete inventory" were "merit rating, job classification [and] shift labour in continuous processes". ibid. The system of relative surplus-value involves increasing the productivity of the workers by the introduction of new technologies in order to increase the amount of surplus labour able to be appropriated by capital.
85 Arrighi, 'Crisis of Hegemony', op. cit., p. 75
The power bloc behind the diffusion and "generalization" of Fordism represented by the export of strip mill technology to Western Europe was comprised not only of "fractions of productive and financial capital" centred on the "mass-production industries" but also key personnel in the American state, and "...at a subordinate level, the domesticated trade unions", that "henceforward would remain committed to the arrangements of the era of American hegemony and Atlantic hegemony". During the Second World War, many of the key personnel in the American state were recruited from the ranks of big business and that part of corporate America which was committed to the transnationalization of US capital. Here the international investment banks, the "mass producers" in the automobile and consumer goods industries and sections of the armaments sector were most prominent.

The power bloc began to assert its influence in 1945 and was able to draw on the Atlantic connections that a number of its members had established in the 1930s, particularly in Germany. Dillon, Read and Company, a powerful Wall Street investment banking firm, and a number of investment banks such as Kuhn, Loeb associated with the Rockefeller group were instrumental in this regard. They were determined that Germany not be forced to make reparations either to Britain or France and voiced their intense opposition to mooted plans for German de-industrialization and neutralization (that were largely but not exclusively associated with Roosevelt's Secretary of the Treasury, Henry Morgantheau).

86 Gill and Law, op. cit., pp. 96-97 and van der Pijl, Ibid., pp 93-94
87 Dillon, Read's connections with the automobile industry had been established when in the interwar years it launched an "ultimately abortive" "...attempt to build a rival automotive complex out of Chrysler and Goodyear Tire and Rubber, with which they confronted the General Motors/US Rubber combination (controlled by Du Pont and Morgan) and Ford/Firestone." Ibid., p. 91
88 For more on the usually dismissive reaction to the proposal for the deindustrialisation and pastoralisation of Germany from within American foreign policy establishment circles, specifically the Council on Foreign Relations, see Robert D. Shulzinger, The Wise Men of Foreign Affairs: The History of the Council on Foreign Relations, Columbia University Press, New York, 1984, pp. 102-104. See also Gabriel Kolko, The Politics of War: The World and United States Foreign Policy, 1943-1945, Vintage Books (a division of Random House), New York, 1968, pp. 320-333. According to Kolko, the Morgenthau plan was not simply "anti-German but "...in a most integral fashion also a plan for de-Boleshevizing Russia and of reintegrating it into a new capitalist world economy". The plan sought to deprive the Soviet Union of the level of reparations it desired as tabled at the Yalta Conference of February 1945. Ibid., pp. 323 and 332.
They firmly believed that German industry was vital to the recovery of Europe: “Their strategy was to make the heavy industries of the Ruhr a core of a new Western European economy: an idea first broached to Secretary [of the Navy] Forrestal in 1945 by Ferdinand Eberstadt, a former Dillon, Read partner.”

Late in 1944 and early 1945, “...[Secretary of War] Stimson protested the prospective industrial emasculation of Germany, lest it undermine American economic well being, set back recovery throughout Europe, and unleash forces of anarchy and Revolution.” This was a view strongly supported by John Foster Dulles who was then a Republican adviser to the State Department that was at the time crawling with Democratic appointees. Later in 1945 then Secretary of War Robert P. Patterson began to support the merger of the American and British zones in occupied Germany. William Draper, a former partner of Forrestal’s at Dillon, Read and who was General Lucius Clay’s chief economic assistant, was charged with the responsibility of overseeing the merger. (Clay was the American military governor in Germany). “Draper firmly believed”, quotes Melvyn Leffler, that “economic collapse in either [France or Germany] with probable political break-down and rise of communism would seriously threaten American objectives in Europe and in the world.”

89 van der Pijl, op. cit., p. 145
91 van der Pijl, op. cit., p. 145. John Foster and his brother Allen Dulles were partners in Sullivan and Cromwell, a prestigious Wall Street law firm that “they turned into a financial group in the 1930s” Ibid., p. 82. van der Pijl also details the links that Sullivan & Cromwell and the Dulles brothers had forged with major German chemical companies and banks during the 1930s. Ibid., pp. 82-83 John Foster Dulles was to be Secretary of State during Eisenhower’s Presidency. Allen Dulles was appointed Director of the Central Intelligence Agency at the same time. John J. McCloy, who served as Assistant Secretary of War and American High Commissioner for Germany and in various other posts during the Second World War and the early years of the Cold, was associated with the Rockefeller-linked Chase Bank and became its head in 1953. Ibid., pp. 144-145. According to Schulzinger, “McCloy’s Wall Street law firm of Millbank, Tweed, and McCloy was as well-connected and nearly as famous as Dulles’ old partners at Sullivan and Cromwell” Schulzinger, op. cit., p. 148. Richard Barnet credits McCloy with “hand picking” the German Federal Republic’s first Chancellor, Konrad Adenauer. Richard J. Barnet, The Roots of War: The Men and Institutions Behind American Foreign Policy, Penguin, Harmondsworth, 1972, p. 57 B.J. Buttenweiser, who was McCloy’s deputy when he was American High Commissioner in Germany, had been recruited from the investment bank Kuhn, Loeb. van der Pijl, op. cit., p. 145.
92 Leffler, op. cit., p. 364.
Secretary of War Patterson was a “Wall Street lawyer for US investors in Germany” and Secretary of the Navy Forrestal was president of Dillon, Read.\(^93\) Paul Nitze, too, had a Dillon, Read connection. After a “short stint” with the investment bank he was recruited to the government by Forrestal in 1941. He served in a number of “economic mobilization agencies”, then became a “special consultant to the War Department and Vice Chairman of the [United States] Strategic Bombing Survey from 1944 to 1946”. From there he went to the State Department, specializing in “international trade and finance”. He also played an important role in initiating the Marshall Plan.\(^94\) In 1950, during Dean Acheson’s term as Secretary of State, he replaced George Kennan as head of the Policy Planning Staff. Nitze headed the team of State and Defense Department officials who drafted NSC-68 which “was the first formal statement of American policy” which “expressed the fully formed Cold War world set of American leaders”.\(^95\) The strategic implications of this crucial Cold War document will be examined in some detail in Chapter 4.

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\(^{93}\) van der Pijl, *op. cit.*, p. 145

\(^{94}\) Sanders, *op. cit.*, pp. 72-73

Stephen Gill and David Law also speak of the development of an international or Atlantic historic bloc. The power bloc that had emerged in the United States during the Second World War and that became so influential in the American state in the years thereafter had, as has been demonstrated above, a well-developed Atlanticist outlook. The enormous capital imports into Europe and the “radical changes in the very composition of European capital” that began to occur in the early post-War years, and that were greatly accelerated during the Marshall period, selected out elements of the Western European bourgeoisie (and working classes) that were sympathetic to the United States and its post War intentions. In terms of the political reconstruction of Western Europe, the American corporate and state elites found their natural allies in “...centrist political parties and non-communist organised labour”. Mike Davis observes that broadening the base of support for Christian Democracy beyond the “Catholic countrysides and the traditional petty-bourgeoisie” was crucial to the success of America’s efforts to implant the Fordist regime of accumulation in the countries of Western Europe. This campaign to increase the popular, working class appeal of Christian Democracy would have come to little had it not been for the targeting of socialist and Communist trade unions and political parties in the “US offensive to ‘liberalize’ postwar Europe”: “Throughout the Allied zones of occupation in Germany, for example, left Social Democrats, as well as Communists, were purged from elected positions, local ‘united fronts’ outlawed, and strikes forbidden.” The AFL and the CIO (“after the expulsion of its own left-led unions”) were willing, well-funded and important accomplices in the American offensive to marginalise the left in Western Europe.

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96 “Historic bloc” was a term employed by Gramsci to refer to the integration of state and society into a single, relatively stable and solid structure. An historic bloc was thus an alliance of disparate class forces brought together around a “set of hegemonic ideas”. (See Gramsci, Selections from the Prison Notebooks, op. cit., pp. 366 and 168 and Gill and Law, op. cit., pp. 93-94. The creation of a historic bloc is in the interests of the power bloc for when state and society are integrated with one another so is the likelihood of serious threats to the status quo accordingly diminished. The “class conciliation” or “class compromises” associated with Fordism-Taylorism helped to create a post War historic bloc within the United States and the Western European countries. It is argued here that after the War an Atlantic historic bloc also developed which established links between the corporate-liberal sections of the American capitalist class and like-minded sections of the Western European bourgeoisie. Similar, though subordinate links, were established between non-communist political parties and labour organisations of the United States and their counterparts in Western Europe.

97 Ibid., p. 97

98 Davis, op. cit., p. 187
and splinter mass working-class organisations into competing socialist, Communist or Christian Democratic blocs.99

1.8 The interlocking of the economic and military foundations of US hegemony

The North Atlantic Treaty Organisation (NATO) was the hub of the network of military alliances that the United States constructed after the Second World War. In the view of American policy makers, NATO and the Marshall Plan each made a valuable and mutually reinforcing contribution to the security and prosperity of Europe and the world. In March 1949, not very long before the signing of the North Atlantic Treaty, the U.S. Department of State issued a statement explaining how global and European security and prosperity were served by the ERP and the North Atlantic Pact. The document reads,

[I]n the view of the United States, the Pact and the ERP are both essential to the attainment of a peaceful, prosperous, and stable world. The economic recovery of Europe, the goal of the ERP, will be aided by the sense of increased security which the Pact will promote among these countries. On the other hand, a successful ERP is the essential foundation upon which the Pact, and the increased security to be expected from it, must rest.100

Further on in the same document, the Department of State observes that the progress made thus far in European economic recovery and the economic, military and political cooperation achieved by the “Western nations of Europe” have together made the North Atlantic Pact possible. The document states that the European Recovery Program and the Organization for European Economic Cooperation (OEEC) are “the core” of European recovery.101 It notes that the OEEC is comprised of the sixteen countries who are receiving the aid being

99 Ibid., p. 188
101 Earlier on in the document, State had pointed out that while “[T]he North Atlantic Pact is a necessary complement to the broad economic coordination now proceeding under the European Recovery Program” there is no formal connection between them because the ERP includes countries that have not been signatories to the Pact. Ibid., 158. Sweden was one of the latter.
channelled through the US Economic Cooperation Administration (ECA) and that the charter of the OEEC includes a commitment from each of its members to persevere in the effort to "...increase production, modernize industry, stabilize their finances, and balance their accounts with the outside world in order to make their full contribution to world economic security." This commitment was not surprisingly fully in accord with the sentiments of the Atlanticist fractions of US capital whose leading members comprised the power bloc in the American state.

But beyond that, the document highlights a fundamental element in the hegemony of the United States that characterised the military alliance system it established and co-ordinated. That is that security is never seen purely in military terms. Rather, as with NATO and the ERP, security has a military and an economic dimension. The two dimensions are indissolubly linked. Arrighi points out that the economic and military supremacy enjoyed by the United States after the Second World War enabled it to construct a hierarchical interstate system in which the United States government was able "...to act within the capitalist world as a state above other states." "In this sense", he says, "we can speak of a U.S. imperial order -- an order particularly evident in the military and financial spheres, with U.S. military power strategically placed throughout the world through a system of military alliances (NATO, SEATO, etc.), the CIA acting as an imperial secret police, and the dollar performing the function of universal money." 

The convertibility of most of the important currencies with the dollar and with each other at fixed parity (one of the key components of the Bretton Woods system), and the system of military alliances gave the United States the ability to play a key economic and political-military regulatory role in the world-economy. The formation of NATO and the signing of the Japanese-American mutual Security Pact of 1951 were predicated on the pacification of inter-state relations in the core of the capitalist world-economy, an achievement made possible by

102 The sixteen countries in the OEEC were the United Kingdom, Austria, Belgium, Denmark, France, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Sweden, Switzerland, and Turkey. The document notes in an aside that, "Western Germany also participates fully in the OEEC". Ibid., p. 160.

103 Arrighi, 'A Crisis of Hegemony', op. cit., p. 56
wartime devastation, American recovery aid and direct investment, and not least the "Soviet threat". The pacification of inter-state relations in the capitalist core therefore was greatly facilitated by the need to contain Soviet expansionism and aggression and the related threat of even greater devastation implied in the U.S. strategy of nuclear deterrence should containment not succeed. On the economic front, the maintenance of US dollar convertibility meant that "satellite states" were constrained "...to apply the monetary and budgetary policies" that were consistent with convertibility. This inclined them

...to enforce market discipline over their own national economies and to counteract major overproduction tendencies that might develop within them. A hierarchically structured system of capitalist states thus sustained and regulated the reactivization of market-like forces, succeeding where an anarchic interstate system had failed in the 1920s.104

Not only was the Bretton Woods system predicated on the peaceful co-existence of the states in the core of capitalism, it also helped to enforce harmonious intra-capitalist relations. While states still retained the responsibility for domestic employment and welfare policies and the like, they operated within constraints that "...precluded economic aggression against others and aimed at a harmonisation of different national economic policies."105 The Soviet Union remained outside Bretton Woods because it rightly regarded the system as being inconsistent with socialism, political independence and economic self-determination (it rejected Marshall aid for similar reasons).

The economic and military bases of United States hegemony were interlocking and mutually supporting, as the Department of State’s comments on NATO and the European Recovery Program emphasised. But there were more subtle connections between the economic and military bases, and these can be discerned by examining the way in which the United States waged war in the Second World War. The examination in the next section will concentrate on the US Army Air Forces for it was they who were at the leading edge of applying Fordist and

104 Ibid., pp. 56-57
Taylorist management techniques and processes to the business of waging industrialised warfare. At a deeper historical level, an American military tradition which linked economic superiority and industrial productivity with destructive capacity emerged during the Civil War and reached its crescendo during World War II. The economies of scale and productive efficiencies of Fordism and Taylorism, so amenable to the mass production of complex commodities like the weapons of industrialised warfare, helped to carry the military tradition to these heights. The origins and development of this tradition will be traced in the final section of this chapter.

1.9 American military Fordism

A technocratic approach to strategy was a natural outgrowth of the American style of warfare. As will be seen in the following section, this style of warfare involved the use of overwhelming force to annihilate the enemy forces, and increasingly the enemy's society as well. The size, power and productivity of the American economy lent themselves to this style of warfare. Ernest Mandel describes the Second World War "...above all as a war of mass-produced mechanical weapons." The "general industrial resources" possessed by a power determined its ability to mass produce the weapons of industrialised warfare. As Mandel comments, "[I]n this respect Germany and Japan were overwhelmed by the sheer superiority of America's industrial capacity." The Second World War was, then, "...a conveyor-belt war, the war of military Fordism."106 Says Russell Weigley, "...World War II was a 'gross national product war', in which sheer quantities of weapons, supplies, and transport could decisively outweigh the enemy; America's industrial leadership fitted it preeminently to wage such a war."107 Of course, World War II was not only a war of "military Fordism" or gross national products, it was also, like the First World War, a war of mass armies. Obviously, these mass armies "could be organized, maintained, and fought effectively only by leaders possessing highly developed management skills." The "General Staff and school systems and their extensions" established by Elihu Root (Secretary of War 1899-1904 and of

State 1905-1909) in the early 1900s had proved effective in developing an officer corps that possessed these skills. The destructiveness of American weaponry and military strategy rested on the productivity of the American economy. The links between mass production and mass destruction was strengthened by the “more generalized management skills of a complex industrial society” which complemented and “nourished” the management skills of the officer corps.\textsuperscript{108} All in all, World War II called for the very ingredients of military power that American history had best prepared: the mass army that could be drawn from the citizen soldiery of American tradition; the skilled officer corps that the small American Regular Army had cultivated since Dennis Mahan’s day, reinforced now by general American management skills; the lavish military equipment that American productive capacity could supply in unrivaled profusion.\textsuperscript{109}

During the Second World War, the U.S. Army Air Forces led the way in institutionalising a managerial and technocratic approach to strategy and warfare. Mass destruction by aerial bombardment adapted many of the techniques and processes used in the mass production of “complex commodities”, including aeroplanes, to mass destruction.

It was not just the “sheer abundance” of materiel but also “organizational expertise” which gave the United States superiority over Germany and Japan. The Americans (and British) demonstrated far greater skill than the Germans “…in converting automobile companies to aircraft production, allowing the use of mass production techniques those industries had pioneered.” This was in spite of the

\textsuperscript{108} Ibid., p. 475
\textsuperscript{109} Ibid., p. 480. Dennis Mahan (father of Naval theorist Alfred Thayer Mahan whose ideas are examined in Chapter 2)) became Professor of Civil and Military Engineering at West Point in 1832. Not only did he produce texts “upon which subsequent American engineering education was founded”, he was also instrumental in the professionalisation of the American officer corps. Ibid., pp. 150-15. For more on American management techniques, and on the rise of the management function and “class” in American corporations and society, see Chandler, \textit{op. cit}. Chandler comments (p. 496) that during World War II “[T]he mobilization of the war economy brought corporation managers to Washington to carry out one of the most complex pieces of economic planning in history. That experience lessened ideological anxieties about the government’s role in stabilizing the economy.” As Chandler notes, while ideological anxieties were lessened, they were not in all cases entirely effaced.
fact that the production of aircraft and aircraft engines was not readily amenable to rationalization and standardization. Nevertheless, Ford’s factory at Willow Run which “churned out” B-24 Liberators came close to full employment of the methods of mass production. The adaptation of these production methods to the manufacture of aircraft was endorsed “despite resistance from some aviation firms” by Robert Lovett, Assistant Secretary of War for Air and General H. H. Arnold, who had been appointed to command the Army Air Forces (AAF) at their creation in June 1941. Despite the problems associated with the mass production of aeroplanes, the American automotive industry’s contribution to the sustained and massive output of aircraft was impressive. The enormous Ford plant at Willow Run was built at a new site expressly for the purpose of building aeroplanes, but new plants that adjoined existing factories were also built and run by the motor vehicle manufacturers. (Existing plants mass produced vast quantities of tanks, trucks, cars and the like.) By 1942, 66 percent of automobile industry tools were “going into the new aircraft and engine factories”. This machinery of mass production combined with a capacity for the efficient management of production of complex commodities on such a vast scale enabled the automotive industry rapidly to increase aircraft production rates. Moreover,

[T]he motor industry produced over 50 per cent of all aero-engines, and 66 per cent of all combat engines as well as 40 per cent of all airframe production by weight. At its peak the Ford plant for B-24 bombers produced in weight the equivalent of 50 per cent of the peak of German aircraft production on its own. Without the conversion of the motor industry the aircraft producers themselves would have been unable to cope with the scale of contracts available from 1941 onwards, even though

10 Michael S. Sherry, The Rise of American Air Power: The Creation of Armageddon, Yale University Press, New Haven and London, 1987, pp. 191 and 192. Then Secretary of War Stimson had brought Lovett into government service in 1941 “...to rationalize industry’s chaotic mobilization for aircraft production.” Ibid., p. 96 Lovett’s father was General Counsel of the Union Pacific railroad, Lovett himself was a partner at the banking firm Brown Bros. and as “...an enthusiastic flier in World War I, was captivated personally, professionally, and financially by airplanes. He was an ideal man to take charge of the Army Air Forces.” Barnet, op. cit., pp. 53, 54 and 55. Of Secretary of the Navy and later of Defense, James Forrestal who, as noted above, had been a New York investment banker with Dillon, Read, Michael Sherry comments, “[P]ossessed of wide-ranging if superficial interests, he masked his ambition and strong passion by a cult of rationality, managerial efficiency, and self-effacement.” Michael Sherry, Preparing for the Next War: American Plans for Postwar Defense, 1941-45, New Haven, 1977, p. 20.

they, too, rapidly expanded in size throughout the period. Other sectors of American industry, notably the domestic appliance and electrical industry, were also drafted into the aircraft production programme as sub-contractors, including the electrical giants General Electric and Westinghouse.112

The management of mass destruction mirrored the management of mass production. This was no surprise, given the numbers of corporate managers and professionals who found work in government service during the Second World War. Robert Lovett was entirely representative in this respect. Moreover, the administration of the U.S. Army Air Forces (AAF) was modelled along the lines of a modern American corporation. Before 1941 there was no separate air staff and the Air Corps had only 1600 officers in 1938. “Senior officer material” therefore had to be recruited from civilian life, with business and the professions furnishing most of the officer recruits to the air staff. These new recruits, most of whom had next to no military experience, were given “special administrative and service roles”. (Those with such experience were not surprisingly given combat commands.) The links between the business and professional worlds and the AAF had been established by the enlistment of the automotive and other industries to the task of building a large air force, and the air force’s recruitment policies. These links were reinforced and strengthened by Arnold’s desire to “…apply the methods of American business to the task of running a major air force.” To this end, “[I]n November 1941 the AAF brought in the Wallace Clark Company of management consultants to advise on the establishment of the air force administration”.113

112 Ibid., pp. 164-165. Overy does however note that all was not plain sailing. The main problem was with modifications to an original aircraft design. Such modifications were introduced with a view to keeping to a minimum the interruptions to an aircraft’s production life. (In any case, modifications to existing designs involved far less interruptions than the introduction of new designs.) In respect of modifications, “In America a system was chosen in which modifications would be accumulated over a period of time [and] introduced in a batch to prevent interruptions to large production runs. In some case quality suffered. Many argued that the Ford plant’s long delay in producing B-24s in mass-production at Willow Run had rendered the aircraft obsolescent; yet large quantities were produced in 1944 and 1945 to considerable operational effect.” Ibid., pp. 177 and 178
113 Ibid, p. 135
Out of this advisory and consultancy process came the Directorate of Management Control whose function was to assist in the administration of the air force. The Directorate established Organisational Planning and Statistical Control units and these became the core of the “...Operational and intelligence organizations set up in 1942 and 1943 for the rational assessment of war experience.”\textsuperscript{114} The induction of recently recruited officers into the air force was facilitated by links with the Royal Air Force (RAF) that had been established under the Combined Chiefs of Staff organization. These links with the RAF in part made up for the AAF’s “lack of senior staff officers” and therefore permitted the AAF to play a more important part in the conduct of the war than it might otherwise have been able to.\textsuperscript{115} The RAF and AAF shared a conviction that officers and civilians qualified for technical and engineering roles were vital to the efficiency and effectiveness of an air force. Engineering, combat and administrative officers were given “equal status”. In general, those officers in technical and engineering positions already had training and experience. Where this was not the case, “...civilians were brought in to organize technical and engineering functions, and in the AAF in particular considerable emphasis was laid on the engineering staffs, on whose contribution the combat staffs were largely dependent.”\textsuperscript{116}

Arnold insisted on the “maximum effort” from the air force, and he measured that effort in terms of cost-benefit analyses and statistical data. He was much more concerned with weight of bombs dropped on the enemy and the amount of consequent damage than with the question of whether victory and the end of the war had been brought closer. Since he possessed such a technocratic mentality, it was unremarkable that Arnold found “elaborate statistics projecting rubble accumulated and man-hours lost on a per ton basis” so appealing, especially given that such statistic gave the misleading impression that bombing was a

\textsuperscript{114} Ibid., emphasis added
\textsuperscript{115} Ibid., pp. 135 and 136. The Combined Chiefs of Staff system had been created at the Anglo-American meeting in Washington “directly after Pearl Harbor (the Arcadia Conference).” The system established the “...machinery for the day-to-day coordination of the war and for hammering out the Western strategy.” Maurice Matloff, ‘Allied Strategy in Europe, 1939-1945’ in Peter Paret (ed.), Makers of Modern Strategy, op. cit., p. 682
\textsuperscript{116} Overy, op. cit., p. 136
scientifically planned and executed procedure. The measurement of bombing's effectiveness in quantitative terms — "tonnage delivered, sorties flown, acreage wasted", and so on — rather than in terms of its contribution to victory, had an escalatory effect on the air war, particularly over Japan. Indeed, these quantitative data, which were after all relatively easy to compile and amenable to straightforward statistical analysis, "far from inviting restraint, encouraged escalation".

Comments Michael Sherry, "[M]ore than most military operations, the Twentieth Air Force waged war by assembly-line procedures that divided tasks and fractionated responsibilities." What Richard Barnet terms "bureaucratic homicide" was perfected in the Second World War, not only in the running of the extermination camps of Nazi Germany but also in the military operations, especially bombing campaigns, conducted by Britain and the United States. Bureaucratic homicide is characterised by a complex division of labour in which as a general rule the planners do not do the killing and the killers (or "operatives") have no part in the planning. The "bureaucratization of homicide", and attendant assembly-line procedures and economies of scale make possible "mass-produced death". Under these conditions, mass killing becomes a routine technical procedure much like any other. As for air war, even those who actually flew bombing missions were at a considerable distance from the death and destruction they wrought. Indeed, "[T]he airplane enables the cool contemporary killer to set his victims on fire without ever laying eyes on them." The target selection procedure is a key stage in the overall process of bombing. It is also here that bureaucratic homicide is at its most technocratic.


118 Sherry, Creation of Armageddon, op. cit., p. 224

119 Barnet, op. cit., pp. 13, 14 and 15
The target folder used by the bombing crews, and the destruction those crews brought about were the products of a long and hierarchically organised process which sharply separated planners from the crews. This mirrored the hierarchical organisation and management techniques of major industrial enterprises, where design was separated from execution. The process began with the Joint Chiefs and Arnold issuing “broad directives” to the bomber commands. These broad directives established the parameters within which civilian analysts in the Committee of Operations Analysts and their military counterparts interpreted economic and other data to identify those “targets systems” that were highly vulnerable to destruction from the air. The plans and operations staffs working in the AAF and Joint Targets Group used the work of the operations analysts to select and rank the importance of specific targets. The selection and ranking of targets, and the scheduling of the attacks on them, were also activities undertaken by staff in the headquarters of the Twentieth Air Force. At the next stage Curtis Le May and Haywood Hansell, commanders of the Twentieth Air Force’s two bomber commands in the Far East, compiled the target folders on the basis of the data they received from photographic surveillance and analysis of intended targets. In preparing the target folders they also factored in information about weather conditions along the flight paths and over the targets, calculations of the numbers of aircraft needed for the planned attacks, and estimates of the strength and location of enemy defences. They then chose the days on which the attacks would take place and assigned crews and aircraft to the different missions. At the completion of a mission, the “whole process was reversed” and “streams of information” flowed back into Washington. There it was analysed and evaluated as part of the effort to improve the performance—that is, the efficiency and effectiveness—of subsequent missions. 120

The Committee of Operations Analysts was a wartime destination for many lawyers, professionals and business leaders with a high national profile. Among these were Thomas Lamont of J.P. Morgan, future Supreme Court Justice John Marshall Harlan, the Boston lawyer and “de facto chairman” of the Committee

120 Sherry, *Creation of Armageddon*, op. cit., pp. 224-225
Guido Perera, and the well-known Princeton academic Edward Mead Earle, a trailblazer for the many members of the academic profession who would serve in an advisory role for the military after the War. These well-connected civilians made up for the fledgling air force's lack of skilled professional staff. But there were considerable compensations, for after all

...analysis of an enemy's strategic systems required a knowledge of foreign industrial economies gained through legal or business experience. More important than their technical expertise was the assumption that businessmen and lawyers possessed the talent to think logically about these problems, the connections to draw in specialized expertise, and the freedom from operational demands to give these matters sustained attention. Perera himself, responsible for recruiting COA staff, naturally turned to men of similar background. Indeed, linkages of class, education, and geography, especially at the top rungs of business and law in the Northeast, were vital in recruiting civilians, all the more so with two elite easterners, Stimson and Lovett, at the highest level of the War Department. 121

The civilian analysts engaged by the Army Air Forces introduced a "dehumanized rhetoric of technique" to the already highly destructive and murderous process of strategic bombing. Not only did this rhetoric reduce the enemy to "quantifiable abstractions", it also increased the distance between the planners and the victims of destruction, a distance that had been vast enough to begin with. The rhetoric

121 Ibid., p. 194. The United States Strategic Bombing Survey (USSBS), which was established towards the end of 1944, again demonstrated the "linkages of class, education, and geography". Perera was again prominent, as did J.P. Morgan lawyer and partner Henry C. Alexander, Franklin D'Olier who was Chairman of the Board of Prudential Insurance. Paul Nitze was also a part of the USSBS. The likes of the liberal economist John Kenneth Galbraith served on the Survey's staff, as did the poet W.H. Auden and the Marxist economist Paul Baran -- but the latter two on the lower rungs of the Survey hierarchy. Ibid., p. 195 For more on the Survey, see David MacIsaac, Strategic Bombing in World War Two: The Story of the United States Strategic Bombing Survey, Garland, New York, 1976. See also David MacIsaac, 'General Introduction to the United States Strategic Bombing Survey Reports' in MacIsaac (ed.), The United States Strategic Bombing Survey (vol. 1), Garland Publishing, New York, 1976, pp. i-xix. The USSBS Summary Reports of the European and Pacific Wars can be found in Philip Bobbitt, Lawrence Freedman and Gregory F. Treverton (eds.), US Nuclear Strategy: A Reader, MacMillan, Basingstoke and London, 1989, pp. 22-39. The Summary Report of the Pacific War observed that, "[B]ased on a detailed investigation of all the facts, and supported by the testimony of the surviving Japanese leaders involved, it is the Survey's opinion that certainly prior to 31 December 1945, and in all probability prior to 1 November 1945, Japan would have surrendered even if the atomic bombs had not been dropped, even if Russia had not entered the war, and even if no invasion had been planned or contemplated." Ibid., p. 35.
and accompanying methodologies employed by the civilian analysts portrayed strategic bombing not as a "strategic process aiming at victory" but rather as a "technical process in which the assembly and refinement of means" were overriding concerns, indeed, ends in themselves. As techniques and methods of destruction became more sophisticated, so too did the "language and methods of measurement" become more complex and technical thus preventing or shielding the analysts from acknowledging the nature of the destruction they were helping to bring about. In any event, "[T]he talent gathering around the American and British air forces (some four hundred operations analysts, mostly civilian, in the AAF) in the end apparently made little difference in the choices made of strategies and means; much of the expert effort simply provided a quasi-scientific rationale for what the bomber commanders would do anyway."\textsuperscript{122}

Moreover, as seen above, many of the operations analysts were businessmen and lawyers in civilian life, not scientists at all. It was not surprising then that their rhetoric, techniques and methods of measurement owed more to the "balance sheet mentality of capitalism" than to the techniques of the physical and mathematical sciences. The rhetoric and techniques they employed assumed that "entrepreneurial models" applied as much to war as to business and that it was therefore possible and necessary to produce a "profit-and-loss statement of air war". Thus, while the operations analysts did little more than rationalise and justify what the bombing commanders were doing, they did so by subjecting it to critical appraisal in terms of efficiency and cost-effectiveness, the standards of accountancy and economics. They thus helped indirectly to refine the \textit{means} of strategic bombing -- bomb design, bombing methods, and the like.\textsuperscript{123} This was the net effect of their contribution. Operations analysis was the forerunner of systems analysis which became one of the most important of the conceptual and methodological tools employed by the strategic theorists who established strategic studies. Like operations analysis, systems analysis was concerned with efficiency and cost-effectiveness, not so much of bombing missions, but of competing

\begin{footnotesize}
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\item \textsuperscript{122} Sherry, \textit{Creation of Armageddon}, op. cit., pp. 233-234
\item \textsuperscript{123} \textit{Ibid}, p. 235
\end{enumerate}
\end{footnotesize}
weapons systems. Perhaps it was no surprise, then, that the work of the strategic theorists was even less relevant to the practical concerns of the military planners than was the work of the operations analysts.

The technocratic turn of American strategy during the Second World War was entirely compatible with, indeed reinforced, some of the most important and enduring elements in the modern American military tradition that had its origins in the strategy conducted by Lincoln, Sherman and Grant in the American Civil War. From the American Civil War to the Cold War, the superior economic resources of the United States have helped to shape a strategy of overwhelming force and annihilation of the enemy forces. In the following section, the factors effecting the development of this tradition are identified and analysed.

1.10 Production and destruction: superior resources, wholesale destruction and the modern American military tradition

In linking the productivity of American industry with the destructiveness of American weaponry and military strategy, Commander Ralph E. Williams captures an essential attribute of the modern American military tradition. He observes that the concept of “Bigger Bang for a Buck” is not simply a “clever slogan” for it “expresses very well” the “translation of the economy of mass production into the economy of mass destruction”. He continues, “[T]here is in each case an enormous investment in the physical agents of the process, and, to make these costly agents pay their way, there is a like demand for enormous output: production in the one case, destruction in the other.”124 Markus Raskin also draws attention to the links between the economy of mass production and the economy of mass destruction in American society. “In general”, he says, “the US attitude to weaponry is not dissimilar to that of the population to automobiles.” In a sort of militaristic version of ‘keeping-ahead-of-the-Joneses’, “[T]he assumption still persists in the military and in Congress that the United States is in a

continuous race with the USSR, in which Americans have to be continuously first -- especially in all matters of a military nature."  

The urge to accumulate and continually update weaponry emerges from a military tradition in which the marshalling of overwhelming force became the overriding concern of American strategists. American military strategy in Europe during the Second World War drew criticism at war’s end for this very reason. According to Chester Wilmot, an Australian journalist, “...the Americans put their strategic faith in fashioning a gigantic ‘military steamroller’ in their training camps and factories that they propelled across the Atlantic to crush the Germans by a massive frontal assault without much thought for the political consequences.” Winston Churchill accused the Americans of being captives of a “large-scale mass-production style of thought” But this is precisely the point. As seen above, mass production could be converted into mass destruction, and this was in conformity with the American style of waging war. In the Second World War the United States did exploit its superior economic and manpower resources in pursuing a policy of the unconditional surrender of Germany and its allies.

From the American point of view, the most appropriate strategy seemed to be for the United States and its allies “to overwhelm the enemy with so complete a destruction of enemy strength that it would produce utter malleability in the face of American and Allied demands”. The “utter malleability” of Germany and Japan would allow the United States to reconstruct the world-economy under its own hegemony and to pursue a policy of containment of the Soviet Union in which the key centres of power on the rimland and offshore islands of the Eurasian land mass would play a vital part. (The geopolitical significance of Eurasia to the policy of containment and strategy of nuclear deterrence will be

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considered in Chapters 2 and 3.) Once the United States entered the Second World War in December 1941, "...the President’s unwavering goal was the complete and utter defeat of the enemy -- what became in February 1943 the ‘Unconditional Surrender’ proclamation." A war waged with the explicit aim of securing the unconditional surrender of the enemy removed any lingering thoughts that a negotiated peace would bring the war to an end either in Europe or Asia. The War...became an opportunity for reform, a chance to extend the New Deal to Europe and Asia. Moreover, with many of Roosevelt’s military planners predicting a German victory on the Russian front, full military participation by American ground forces became recognized, slowly but surely, as a necessity. With this redefinition of victory [unconditional surrender], and the reevaluation of the means necessary, American economic strategy called for overwhelming economic/production superiority in order to achieve overwhelming military/political success.\(^{128}\)

In the view of Maurice Matloff, ‘[F]or the American military, the First World War confirmed the doctrines of concentration and of fighting for complete victory, and out of the battlefields of Europe came the foundations of strategic faith that military leaders like General George C. Marshall sought to apply in the multitheater context of the Second World War.” In the First World War the American military demonstrated its ability “...to raise, deploy, support, and fight large citizen armies overseas in offensive warfare.”\(^{129}\) This experience reinforced the view of American military leaders that the surest way to victory was to overwhelm the enemy with the “direct application of the economic and manpower resources of the United States”\(^{130}\). In reflecting on the First World War, American “strategic commentators” even considered the possibility that strategy, previously regarded as the “foundation of victory”, had been eclipsed by “political, economic, social and military endurance based on superior resources”\(^{131}\).


\(^{129}\) Matloff, *op. cit.*, p. 696

\(^{130}\) Weigley, *op. cit.*, p. 79

In an article on the strategy of unconditional surrender in the American Civil War, James M. McPherson employs a Clausewitzian distinction between national (or grand) strategy and military (or operational) strategy. National strategy refers to the political goals of a nation in war, and military strategy describes the military means that are used to achieve political goals. McPherson observes that most of the wars in which the United States has been involved have been of a limited sort. The defence or conquest of territory is generally behind the national strategy of limited war. A national strategy of total or unlimited war, on the other hand, seeks the “overthrow of the enemy’s political system”. World War I, says McPherson, which began with the “limited aims of defending the territory and right of self-government of European nationalities” became a “total war in military strategy”. This was because the limited aims could only be achieved by overthrowing the German (and Austro-Hungarian) monarchy. Nevertheless, the national (or, in this case, Alliance) strategy did not change accordingly, and thus the War ended “...with an armistice rather than with unconditional surrender”.

The Second World War and the American Civil War were the two “unalloyed examples” of total war in American history, for they both involved a strategy of unconditional surrender and overthrow of the enemy government. They were also total in the “...sense that they mobilized the society's whole population and resources for a prolonged conflict that ended only when the armed forces and resources of one side were totally destroyed or exhausted.” Like the First World War, the Civil War began as a limited war -- to put down a secessionist rebellion and remove a constitutionally illegitimate government -- but developed into a total war as Union leaders came to realise that the overthrow of the Confederate government called for a national strategy of unconditional surrender. Such a national strategy also called for a strategy of total war in the military sense.

132 James M. McPherson, ‘Lincoln and the Strategy of Unconditional Surrender” in McPherson, Abraham Lincoln and the Second American Revolution, Oxford University Press, New York and Oxford, 1991, pp. 69, 70 and 71 The limited wars in which the United States has been involved include, according to McPherson, “...the Revolution, which did seek the overthrow of British political power in the thirteen colonies but not elsewhere; the War of 1812; the Mexican War; the Spanish-American War; the Korean War.”

133 This view of the Civil War is based on McPherson’s interpretation, Ibid., pp. 74-75
In the American Civil War the logistical dimension of strategy (that part of strategy dealing with the supply and transportation of armies) proved to be a decisive factor in the Union victory. Michael Howard claims that the Confederate generals Robert E. Lee and Stonewall Jackson were more operationally competent than their Union counterparts such as Ulysses Grant and William T. Sherman.\(^\text{134}\)

The Union victory in the Civil War “was not due to the operational capabilities of its generals” but rather to the superior economic and manpower resources of the Union which enabled it to mobilise and maintain more men in the field than the Confederacy was able to put under arms and equip for industrialised warfare. Road, rail and river transportation networks enabled the Union to deploy its armies “…in such strength that the operational skills of their adversaries were rendered almost irrelevant.” American “strategic doctrine” has ever since remained bound to its Civil War origins.\(^\text{135}\) The skill of the Confederacy’s military commanders, in particular Robert E. Lee, was such that Grant was unable to destroy their armies “by any means short of a campaign of attrition aimed at their ultimate annihilation”. The superior resources of the Union enabled Grant to wage such a campaign in which he relentlessly inflicted casualties on the Confederate main armies, and even “traded casualties” with them, “until their destruction was almost complete”. It is no wonder, then, that Grant “…subsequently became identified in American military history with a direct, straightforward strategy of crushing enemy armies under the weight of superior U.S. military resources.” American intervention on the Western Front in 1918 was a repetition of Grant’s Virginia campaign.\(^\text{136}\)

In his campaign from Chattanooga to Atlanta in 1864, Sherman almost “swept the rival army opposing him [of Jos. Johnson] from the board”. In rendering this army virtually impotent, Sherman was able to begin his famous (or infamous)

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\(^{134}\) On this score, Russell Weigley reckons that Grant had “shown himself a superb general of maneuver warfare and an economizer of casualties in his Vicksburg campaign of 1863” Weigley, ‘The Legacy of World War II for American Military Strategy’, op. cit., p. 79


\(^{136}\) Weigley, ‘Legacy of World War II for American Military Strategy’, op. cit., p. 79
marches. Charged by Grant with "inflicting all the damage you can upon their [the Confederacy's] war resources", Sherman destroyed Atlanta "and all its manufacturing and storage capacity" and in his marches "from Atlanta to the sea and then northward through the Carolinas" he laid waste to the "enemy's war resources across a swath of territory as much as sixty miles wide". With the dual aim of destroying the will of the enemy's people to resist, these marches also sought to deprive the Confederate armies of the support of the Confederate people and thus to hasten their (the armies') destruction. The nature of the campaign waged by Sherman against the Confederate forces is to be explained by the fact that

[he] was not able to reach behind the enemy armies until those armies were first substantially destroyed. Sherman's marches would in time help inspire the twentieth century prophets of air power, as well as Liddell Hart, because with air power it became possible to leap over hostile armies to the enemy's economy and people. In the American Civil War, the armies still had to be dealt with first.

As an American strategic doctrine took shape from the American Civil War to the Second World War, the legacy left by Lincoln, Grant and Sherman would become more and more apparent. Grant's legacy could be seen most clearly in the First World War with the campaign of attrition conducted by the American Army on the Western Front. In the Second World War, the opening of the second front in Europe gave the United States the opportunity to launch a Grant-style frontal assault against the German armies and to destroy them. (It should not be overlooked that the Soviet victories at Stalingrad and Kursk made this possible.) The strategic bombing campaigns conducted by the United States in Germany and Japan were more reminiscent of Sherman's marches that had enabled him, after

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138 Ibid., p. 434; Weigley cites Grant, Memoirs, April 4, 1864
139 Russell F. Weigley, History of the United States Army, op. cit., pp. 251-252
140 Weigley, 'American Strategy', op. cit., pp. 435-436; Weigley observes "Sherman's marches deep behind the enemy armies seemed a magnificent demonstration of Liddell Hart's own favoured strategy of the indirect approach. Sherman appealed, unlike Grant, because instead of anticipating the western front he offered a strategic avenue of avoiding it." Ibid., p. 435
the opposition fighting force had been wiped out, to reach behind the enemy’s armies and set about destroying the enemy’s resources and the will of its people to resist. In the Second World War, air power enabled this to be done at the same time as a war of attrition was being conducted on the ground — in the European and Pacific theatres. The superior economic resources of the United States enabled it to wage a Grant-like campaign and a Sherman-like campaign simultaneously and to bring overwhelming force to bear against the enemy in both. This was a truly remarkable achievement.

1.11 Conclusion

This chapter has examined the interlocking of the economic and military bases of American hegemony. That interlocking was clearly manifested in an American military strategy that had been under development since the American Civil War. The emergence of Fordism and Taylorism as the dominant mode of production within the American hegemonic order reinforced and strengthened the interdependency and interconnectedness of the economic and military bases of American hegemony. The reconstruction of the core of the world-economy — in which the export of Fordism/Taylorism was so important — depended on the peaceful coexistence of the states located there. The policy of containment and strategy of nuclear deterrence played an important part in enforcing and rationalising pacification.

Fordism/Taylorism was completely compatible with a military tradition that emphasised the use of overwhelming force in the pursuit of wholesale destruction of the enemy’s forces, and gave to that tradition a sharp technocratic edge. As will be seen in Chapter 4, the nuclear strategy of the United States took the emphasis on overwhelming force to its logical (or illogical) conclusion. Not surprisingly, therefore, strategy was reduced to an exercise in which the refinement of means was the overriding concern and in which the political ends of strategy were all but obscured from view.
The next chapter will trace the development of the American geopolitical worldview which attended on the formation of the United States into a large territorial state and its growing weight in the capitalist world-economy during the Nineteenth Century. American "non-colonial imperial expansion" into the western Pacific and east Asia will be an important theme in this study. The policy of containment of the Soviet Union, which is examined in Chapter 3, can only be understood against this historical background. The doxa of the deterrence paradigm was also the doxa of containment. Thus this historical background is part of the social and political context of the deterrence paradigm (and the intellectual framework of pre-emption). Post War reconstruction of the core of capitalism was rationalised in terms of the containment imperative. In turn, the policy of containment set the geopolitical boundaries and provided the rationale for the strategy of nuclear deterrence. However, as argued above, the strategy of nuclear deterrence grew out of the modern American military tradition which emphasised the use of overwhelming force, sought the annihilation of the enemy's forces, and put great store in retaining the initiative. It was anything but a defensive strategy.
CHAPTER 2

THE SOCIAL AND POLITICAL CONTEXT OF THE DOXA OF THE DETERRENCE PARADIGM (II):
THE GEOPOLITICAL AND STRATEGIC BASES
OF US HEGEMONY

2.1 Preface
This chapter will explore the deep geopolitical and strategic bases of US hegemony. Given that the policy of containment and strategy of nuclear deterrence were both powerful expressions of America’s attainment of the hegemonic position in the capitalist world-economy after the Second World War, it is extremely important to understand their origins and sources. The policy and the strategy did not suddenly appear as if from nowhere after the War. To be sure, the War had been an experience of great significance and consequence which left a firm imprint on subsequent American geopolitical and strategic thought. However, it was not a revelation. Rather, it was more a confirmation of beliefs, assumptions and attitudes that had long informed thinking on geopolitical and strategic matters in the United States. These beliefs, assumptions and attitudes were constitutive of the doxa of the deterrence paradigm. As argued in the Introduction and Chapter 1, this doxa was common to the theory of deterrence, the strategy of deterrence and the policy of containment.

The beliefs, assumptions and attitudes that made up the doxa developed out of events and circumstances which occupied a prominent place in American history. More correctly, these events and circumstances owed their prominence and significance to the doxa. But as will be seen in this and the next chapter, public discussion and debate about they and their place in American history by opinion makers (public officials, journalists, well-known academics and so on) also contributed to the formation, development and evolution of the doxa. Such discussion and debate popularised the doxa and helped to ensure that it became
the dominant, though of course not always unchallenged, view of America's place and role in the world.

The events and circumstances glossed by the *doxa* begin with the creation of the United States itself and extend well into the Twentieth Century. The United States was expansionist and predatory from the start, and as it developed and grew in extent so did the *doxa* develop and evolve. Given its anti-colonial and revolutionary origins, the United States was opposed in principle to the seizure and possession of colonies. However, the belief in the moral superiority of the white, Protestant inhabitants of the United States, and of the civilisation they were creating—a fundamental tenet of the *doxa*—enabled the territorial expansion of the United States and the island annexations orchestrated by it during the Nineteenth Century to be seen in a much more favourable light than equally predatory and self-serving moves made by any of the Great Powers of the Old World. It will be seen below that the Louisiana Purchase, the War of 1812 with Britain, the annexation of Texas, and the westward spread of European settlement into Amerindian lands—to name a few—all involved the acquisition of vast tracts of territory, through violence, astute diplomacy, or what can only be called 'skulduggery'. The purchase of Alaska from Russia in 1867 and the annexation of Hawaii in 1898 were two of the last of these territorial additions.

Nevertheless as argued in Chapter 1, the United States has generally pursued what William Appleman Williams calls "non-colonial imperial expansion". In this regard, the proclamation of the Monroe Doctrine in 1823 announced the intention of the United States to preserve the Western Hemisphere as an exclusive domain for its imperial expansion and thus to keep the region free from the predations of the European colonial powers. This was so even though the Doctrine's architects regarded it as a "concert by agreement" under which the defence of American interests against such predations rested on the support of British sea power. The subsequent enlargements and successive amendments to the Doctrine only reiterated and strengthened this commitment to hemispherical exclusiveness, but did not usually involve the taking of colonial possessions. By the end of the
Nineteenth Century the defence of American interests no longer depended upon British sea power, but the Monroe Doctrine remained very much in force for decades to come.

America's imperial expansion in the late Nineteenth Century took it to east Asia (namely, China) and to the fringes of the Japanese and Russian empires. Rivalries over commercial privileges, the division of China into spheres of influence, and the like with other great powers like Germany, Great Britain and France followed inevitably in the wake of American imperial expansion into east Asia. This expansion of American imperialism beyond the limits of the Western Hemisphere as originally defined in the Monroe Doctrine—the continental United States, the Caribbean, and Central and South America—would have lasting geopolitical and strategic implications for the United States that would only become fully apparent in the post War policy of containment and strategy of nuclear deterrence. The combination of the east Asian imperial expansion of the United States and the transatlantic links that were discussed in Chapter 1 would together give American post War strategy a distinctly Eurasian motif. This motif was strongly reinforced by the wartime enlargement of the territorial extent of the Soviet Union. But it is to the foreign policy and diplomacy of the United States at the turn of the Century that attention now turns, for these are important to an understanding of its policies and diplomacy later this Century. It will also demonstrate the continuities in American foreign policy that stretch back to the early part of the Nineteenth Century.

2.2 American diplomatic assertiveness in the fin de siecle: novelty or not?

At the beginning of the Twentieth Century, the distribution of power in the interstate system was changing fundamentally, with the United States, Germany, Russia and Japan each figuring prominently in the redistribution:

In the Western Hemisphere the United States was assuming a more and more dominating position, its economic activities and political influence permeating the Caribbean and Latin America. In the same way, Japan was pulling ahead of its neighbours in the Far East and extending its control there. The newly united German Empire, boosted by an amazingly swift industrial and
commercial expansion, was steadily changing the old balance of power in Europe. Finally, industrialization was not only allowing Russia to take the first real steps to develop its immense resources but was giving it, through strategic railways, a means of direct military pressure upon China and India.¹

For the reasons that were given in Chapter 1, the United States benefited most from the global redistribution of power and Germany (and Japan) considerably but much less so. Both the United States and Germany were at a substantial advantage over Russia, which was industrialising off a much less developed economic and social base than either of them. Nevertheless, as Kennedy mentions, Russia had been able to benefit strategically from the construction of railways like the Trans Siberian (commenced in 1891 and completed in 1915). This is a point that was not at the time lost on the British geopolitical thinker, Halford Mackinder. He was one of the first who conceived of the continent of Eurasia (or Euroasia) as having global geopolitical significance and, crucially, believed Russia to be the power that was in the best position to dominate the vast Eurasian landmass. This view of the geopolitical importance of Eurasia, and the subsequent developments and revisions of it -- especially the importance later attached to the Eurasian rimland and offshore island powers -- would have a profound and lasting impact on the strategic thinking of American policy makers during the Cold War. As will be seen in Chapter 3, the policy of containment of the Soviet Union owed much to this conception of Eurasia.

Historians (mostly Americans and but some others as well) have long debated (and continue to debate) the question of whether the growth in power of the United States was willed by its leaders and public or whether, on the other hand, that growth was accidental, unintended or unwanted. On this score, Paul Kennedy observes that it was perhaps inevitable that a “more assertive diplomacy”

¹Paul Kennedy, ‘Mahan versus Mackinder: Two Interpretations of British Sea Power’, in Kennedy, Strategy and Diplomacy, 1870-1945, Fontana Paperbacks, 1984 (George Allen and Unwin 1983), pp. 49-50. Kennedy should also have mentioned that, as far as the United States was concerned, by this time the “Western Hemisphere” had been extended to include east Asia, in particular China, and that American economic and political influence was steadily growing there.
accompanied the growth in American industrial power and the corresponding expansion in its foreign trade. Associated with this assertive diplomacy was the emergence of what Kennedy terms an “American style rhetoric of Weltpolitik” which asserted “claims to a special moral endowment among the peoples of the earth” for the American nation. This special endowment was believed to have raised American foreign policy to a higher moral level than that on which the foreign policies of the European great powers were traditionally conducted. Such beliefs and rhetoric “...were intermingled with Social Darwinistic and racial arguments, and with the urging of industrial and agricultural pressure groups for secure overseas markets.” As will be seen below, the moral and racial superiority of white, protestant Americans had from the 1840s between expressed in terms of an American “manifest destiny”. The new diplomatic assertiveness of the United States was expressed not only in its war with Spain but also, says Kennedy, in “[T]he 1895 quarrel with Britain over the Venezuelan border dispute -- justified [for the Americans] in terms of the Monroe Doctrine...Washington’s demand to have sole control of an isthmian canal (instead of the older fifty-fifty arrangement with Britain), the redefinition of the Alaskan border despite Canadian protests, and the 1902-3 battle-fleet preparations in the Caribbean following the German actions against Venezuela”. To this Kennedy adds the observation that, “American administrations showed themselves willing to intervene by diplomatic pressure and military means in Latin American countries such as Nicaragua, Haiti, Mexico, and the Dominican Republic when their behaviour did not accord with United States norms.”

Peter Karsten acknowledges that there was “some increase in ‘militarization’” in the United States at the turn of Century but argues that this did not go nearly as far as the militarization then taking place in the European powers. He cites the increase in the “size and effectiveness” of both the army and navy at the time.

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3 Ibid., pp. 317-318. Alaska was purchased from Russia in 1867. This purchase was made during William H. Seward’s term as Secretary of State. He also “secured” Midway Island. H. Wayne Morgan, Unity and Culture: The United States 1877-1900, Penguin, Harmondsworth, 1971, p. 111.
There was a quadrupling of the "complement of and the annual expenditures for the U.S. regular army and navy" in the period spanning the years 1875 and 1910. Karsten's claim that militarization in the United States did not go as far as that in Europe is somewhat at odds with his admission that the increasing size of the US Navy was more consequential than the growth experienced by the army. This is because in the process of being enlarged, the navy "...rose from being about seventh rank among naval forces in 1880 to being the second, on a par with Germany, by 1908." While the "augmented forces" of the United States were put to "systematic use" in the "war with Spain and the Filipino insurgents, in its occupation of Cuba, in its acquisition of the Hawaiian Islands and the Canal Zone, and in its interventions in China, Nicaragua, Mexico, Haiti, and the Dominican Republic" nevertheless these "military expeditions were largely unplanned". However, "contingency plans for some of them" had been devised either at the Naval War College or Navy General Board. According to Karsten, "...the United States was less militarized than Europe in the fin de siecle" whatever the criteria chosen upon which to base such judgements. It had a "less militaristic culture" and devoted fewer of its national resources to war preparation. He gives three reasons for this: the United States did not have a feudal past; the American people feared a standing army; and, "more significantly" the borders of the United States did not abut the territory of any "dangerous land power" as was the case with Germany, France, Italy, Russia and the Austro-Hungarian empire.

Notwithstanding the alleged fear of a standing army held by the American people, after the war with Spain the size of the Regular Army was not reduced to its pre-war level and the National Guard system was improved. Russell Weigley attributes this to the "new role of the United States in international politics". He correctly regards the Spanish War as being not a cause but an expression of this new role. He describes and accounts for this new world role in terms similar to those employed by Kennedy:

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5 *Ibid.*, p. 31

6 *Ibid.*, p. 43
Having become the leading industrial power during the 1890s, having completed the task of settling the North American continent, placed upon a globe shrunken by improving communications, the United States now possessed a wealth and a military potential that drew her into international political activity whether she willed it or not. Wealth and power imply responsibility, and both world wars were to demonstrate that, however vaguely, the American people sensed their responsibility and could not stand aside indefinitely in the face of global turmoil.

The American government and people did not “clearly recognize” much less control the “drift of events” but, says Weigley, “...they responded appropriately by reforming the Army for the changing demands it might encounter.”

This view is shared by George Kennan who contends that the brief war with Spain “...occurred against a background of public and governmental thinking in this country which was not marked by any great awareness of the global framework of our security.” The Spanish war was important, says Kennan, because it was a “...simple, almost quaint, illustration of some our national reactions and ways of doing business, and a revelation of the distance we were destined to have come if we were ever to be a power capable of coping with the responsibilities of world leadership.”

The views of John Lewis Gaddis about the evolving world role of the United States are even more quaint than those expressed by Weigley and Kennan. Gaddis does acknowledge that the United States shifted to a “more assertive role” in the mid-1890s but claims there remained a “hesitancy about wielding power”. This hesitancy was expressed in the failure of the United States “to make Cuba a colony after taking it, by force, from Spain”. Gaddis also claims that by “slowly preparing the Filipinos for independence” the leaders and people of the United States admitted that they had made a mistake in creating a colony in the

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8 Ibid., p. 314
Philippines. While the “traditional sphere of economic and strategic influence in Central America and the Caribbean” was strengthened, the United States was “half-hearted and ineffectual” in expanding that sphere into east and south east Asia. Describing Theodore Roosevelt as “one of the most sophisticated practitioners of power politics”, who had been installed in the White House by dint of a “historical accident”, Gaddis expresses surprise that “...Americans played almost no role in European affairs during the years that preceded World War 1.”

Donald Cameron Watt has a slightly different perspective from the above authors on America’s changing world role during the 1880s and the 1890s. This was the time he says when the United States initially became “conscious of its position in the world”. There were of course those who found it difficult to accept this new role. He cites the corn and meat producers of the Midwest and South who were not comfortable with selling their produce on a world market “on money borrowed on a world market”. According to Watt, the Populist bimetallism campaign of 1892-1900 was designed to isolate the American economy from the world economy and to escape the “tyranny of the gold standards”. While the demons of Populist rhetoric were the Jews and the British, the new Eastern European migrants who were arriving in larger numbers and settling in American cities were also a cause of some concern. The recent arrivals “provided the city machines with the voting fodder they needed” but were awarded with names like “Bohunks, Polacks, Litvaks, Yids and Wops”. However, as indicated above, not all Americans wanted to turn their backs on the world. Watt attributes such people’s awareness of the United States as a potential world power to the “extraordinary rate of industrial development” and to the “massive growth” in iron and steel production. As a rising economic power, the United States needed trade and markets but had to face competition from the “European colonial powers and czarist Russia”. Whipped into action by the “competitive doctrines of


Social Darwinism", and seeing in Alfred Thayer Mahan’s writings (to be considered below) either a warning or blessing, "...America’s rulers, cheered on by a vociferous section of the American press and public, declared an Open Door policy, expelled Spain from the Caribbean and the Philippines, hijacked the route for a Panama Canal, intervened with strength and moderation to bring an end to the first Moroccan crisis and the Russo-Japanese War, and embarked on the construction of a world navy."\(^{12}\)

All the authors thus far referred to have seen something novel in the readiness displayed by America’s leaders to flex their diplomatic and military muscle during the 1890s. Certainly, the perception of a new world role for the United States was not without some basis in fact, as the reference by a number of these authors to the growing economic strength of the United States indicates. However, the impression of undiluted novelty can only be sustained if a longer view of American history is obstructed by ignorance or indifference. Taking the longer view makes it possible to reach a much more informed understanding and appreciation of America’s role in the world during the Twentieth Century. In adopting this longer view, the views and outlook of such eminences as Alfred Thayer Mahan and Theodore Roosevelt will receive the attention which is due them. This will also provide the necessary background to a consideration of the United States’ evolving relationship with Eurasia.

2.3 The will to power: the longer view back

According to William Appleman Williams, America’s “traditional view of itself” is made up of three basic ideas or images:

One maintains that the United States was isolationist until world power was “thrust upon it”, first to help Cuba, then twice to save the world for democracy, and finally to prevent the Soviet Union and other Communist regimes from overwhelming the world. Another holds that, except for a brief and rapidly dispelled aberration at the turn of the century, America has been anti-imperialist throughout its history. A third asserts that a unique combination of economic power, intellectual and practical genius, and

\(^{12}\) Ibid.
moral rigor enables America to check the enemies of peace and progress -- and build a better world -- without erecting an empire in the process.\textsuperscript{13}

There are elements of each of these ideas or images in the writings of the authors cited above, but John Lewis Gaddis, George Kennan and Russell Weigley are probably closer to Williams’ characterisation of American self-sentiment than Kennedy, Karsten, or Watt. It is instructive to consider the supposed tradition of American anti-imperialism in the light of the policies pursued by successive Administrations from the time of independence.

Williams argues that the American Revolution “…established the United States as a world power which sought and played a very active role in international affairs.” In this regard, he refers to the outcome of the War of 1812. While the Capitol in Washington was burned and the United States did not succeed in conquering Canada, in other respects in the war American interests were served very well. The British were forced to reach a “negotiated settlement that secured American ambitions west of the Mississippi”.\textsuperscript{14} (Under the Treaty of 1783 between Britain and the United States the latter had already been able to shift its boundary west to the Mississippi, which approximately doubled the national area of the United States.\textsuperscript{15}) According to Williams, Spain’s rulers showed that they understood the meaning of the victory of 1812 and, according to him, in 1819 “…conceded without a fight a huge strip of real estate extending from the Gulf of Mexico to the Pacific Ocean.”\textsuperscript{16} In fact, the situation was much more complex than that.

In 1819 Spain did cede the part of Florida it still possessed to the United States (though this was disguised as a purchase.) In 1821 most of the “real estate” of which Williams speaks, which included Texas and the territory that later would be occupied by the states of New Mexico, Utah, Nevada, Arizona, California and

\textsuperscript{14} Ibid., p. 21
\textsuperscript{16} Williams, op. cit., p. 21
part of Colorado, became part of Mexico under the Treaty of Cordoba that was concluded after it had won its independence in a revolutionary war with Spain in the same year. As far as this chapter is concerned, the important point is that as a result of the Mexican War of 1846-1848 (occasioned by America's annexation of Texas) this vast strip of territory was attached to the United States. \(^{17}\) Observes William R. Brock flatly, "[I]t [the Mexican War] added half a continent to the United States, secured the Pacific Coast, and established American power irrevocably on the Rio Grande." \(^{18}\)

Of course, the territorial expansion of the United States had commenced much before that. In 1803, for instance, Napoleon had sold French Louisiana to the United States when the Royal Navy had blocked Napoleon's access to it. \(^{19}\) Prior to the Purchase, Jefferson had convinced Congress to fund the Army to conduct an exploratory mission along the Missouri and on to the Pacific. After the Purchase had been transacted, "...Captain Meriwether Lewis accepted the transfer of upper Louisiana for the United States at St. Louis and then marched out with Lieutenant William Clark, four sergeants, twenty-three privates, and Indian interpreters for the journey to the western [Pacific] ocean." \(^{20}\)

Richard van Alstyne regards Thomas Jefferson as being a representative of the "mercantile spirit" (and therefore in the same camp as Alexander Hamilton!) in that he thought of foreign trade as an instrument of national power and "...declared himself eager to get ahead of the British in the India and China trade." In the early Nineteenth Century, an "imperial American ideology directed at the Pacific and China" was in the making, an ideology upon which the idea of "the


\(^{18}\) William R. Brock, *Conflict and Transformation: The United States, 1844-1877*, Penguin Books, Harmondsworth, 1973, p. 71. During the Mexican War, California was occupied by US forces and was ceded to the United States in the Treaty of Guadalupe Hidalgo of 1848. Under this Treaty, Mexico also ceded Texas, Arizona, Nevada, Utah and parts of New Mexico, Colorado and Wyoming to the United States. All these acquisitions cost the United States $15,000,000. Zinn, *op. cit.*, p. 166. The United States also picked up about $3 million dollars of Mexico's debts.

\(^{19}\) Kiernan, *op. cit.*, p. 5

\(^{20}\) Weigley, *op. cit.*, p. 106
North American road to India” would have a profound influence. This idea combined the “...transcontinental and trans-Pacific route which had been in Jefferson’s mind since 1787”. The overland route to the Columbia River that was opened by the Lewis and Clark expedition between 1804 and 1806, combined with increasing American influence over the Sandwich (Hawaiian) Islands, “...would open the way for diverting the trade of the Orient from Europe to the United States.”\(^\text{21}\)

The attractions of Hawaii were numerous and dazzling. It was able to serve as an entrepot for the Pacific Coast and East Asia by virtue of its “central location”. Merchants, seamen, missionaries and settlers from the United States were drawn to Hawaii in such numbers that “[B]y 1810 Honolulu was an established community, and the process of transforming a native Polynesian kingdom into an American colony was under way.”\(^\text{22}\) Jefferson’s idea of ‘the North American road to India’ was revived by Secretary of State Daniel Webster, the man who selected Commodore Perry for the mission to Japan which in 1853 forced Japan to drop its policy of exclusion of foreigners. In Webster’s view, Japan was “‘the last link in that great chain, which unites all the world, by the early establishment of a line of steamers from California to China.’”\(^\text{23}\) (As van Alstyne also notes, such an ambition would have amounted to very little without a railway to the Pacific Coast, a matter that will be taken up below.)

Similarly, from early on, indeed since the time of Jefferson, the United States had covetously eyed the island of Cuba. It also figured prominently in the trans Pacific flights of fancy. This was because of its “high strategic value”: it was a “...‘blockhouse’ for the projected inter-oceanic canal, the eastern end of the ‘life-line’ of the China trade.”\(^\text{24}\)

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\(^{22}\) Ibid., pp. 22-23
\(^{23}\) Webster, cited in *ibid.*, p. 44
\(^{24}\) *Ibid.*, p. 75
In proclaiming the Monroe Doctrine in 1823 the United States announced that it regarded the entire Western Hemisphere as its sphere of influence or predominance. When President Monroe first enunciated the doctrine he made it clear that "...his country did not consider the Western Hemisphere subject to colonization by other nations."25 Under the "concert by agreement", the Royal Navy was to help protect the interests of the United States from the predatory designs of the other European great powers. When the Monroe Doctrine was being framed "...John Quincy Adams, [Secretary of State] and soon afterwards President, took care that the United States, debarring European governments from acquisitions in the New World, should not tie its own government from snapping up trifles like Texas or Cuba at some later date."26 In many respects, the "vigorous expansionism" of the Monroe Doctrine merely carried on with the outlook of the Revolutionary generation but gave it a more mature expression. These colonists, "who had matured in an age of empires as part of an empire...naturally saw themselves in the same light once they joined issue with the mother country."27

Later in the century, the annexation of Texas by the United States, though endorsement for it was not sought by direct appeals to the Monroe Doctrine, nevertheless clearly came within its frame of reference. In 1846, the failure of the Mexican government to recognise the annexation of Texas by the United States triggered the war between the two countries. As noted above, in the Mexican War the United States extended its jurisdiction to the Pacific Coast and firmly established its power on the Rio Grande. In 1916, the United States was to send a

25 Samuel P. Hays, *The Response to Industrialism, 1885-1914*, The University of Chicago Press, Chicago and London, 1957, p. 168. In early 1945, when American concerns over a Soviet "sphere of influence" were being voiced in negotiations between the United States, Britain and the Soviet Union regarding a post-War settlement in Eastern Europe, Lord Halifax, the British Ambassador in Washington, wrote to Churchill: "'The trouble with these people [the Americans] is that they are so much the victims of labels: 'Power Politics, Spheres of Influence, Balance of Power, etc.' As if there was ever such a sphere of influence agreement as the Monroe Doctrine! And, as I can only tell them when they talk about being outsmarted...they evidently outsmarted somebody when they made the Louisiana Purchase!'" Quoted in Daniel Yergin, *Shattered Peace: The Origins of the Cold War and the National Security State*, Penguin, Harmondsworth, 1980, p. 61

26 Kiernan, *op. cit.*, p. 8

27 Williams, *op. cit.*, p. 21
punitive expeditionary force into Mexico under the command of General John J Pershing in an attempt, says Russell Weigley, to “...to hurry the Mexicans into constitutional government, Anglo-Saxon style.” According to him this aggressive incursion was “dubiously conceived” but “well intentioned”.  

Weigley’s lame attempt to exculpate the Americans for their incursion into Mexico is typical of that brand of American historiography which looks at America’s past through rose tinted glasses. As such it emerges from within the *doxa* and contributes to its perpetuation. The event itself illustrates well the potency of the belief, also an important element of the *doxa*, that the moral superiority of the American civilisation gave the United States the right, indeed bestowed on it a moral obligation, to intervene in the domestic affairs of other countries in order to drag them up to its level, bring them back into the fold when they had strayed, or to keep them on the straight and narrow. By the end of the Second World War, this belief had become especially virulent -- and self-delusory, as the wars in Indo-China so dramatically and convincingly demonstrated. However, Operation Desert Storm indicated nearly as dramatically that it had not been extinguished in Indo-China (as also, of course, had earlier even in Iran, Nicaragua, El Salvador, Grenada and Panama).

Even as early 1870, President Grant, in speaking of the importance of the island of Santo Domingo in the Caribbean and justifying its annexation by the United States stretched the Monroe Doctrine to “...embrace the principle that ‘hereafter no territory on this continent shall be regarded as subject of transfer to a European power.’” In doing so, Grant emphasized the strategic importance of the island which, like Cuba, “...would stand athwart the new lanes of commerce to be opened up when the isthmian canal was built.” Grant, says William R. Brock, “...used the classic formula for justifying intervention and expansion overseas: the danger that others would act if America failed to do so, strategy, economic expansion, moral superiority, and the small step necessary to obtain such striking

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28 Weigley, *op. cit.*, p. 347
benefits."\textsuperscript{29} While the annexation treaty was defeated in Congress, the Santo Domingo episode does graphically illustrate the strong and longstanding tradition of American imperialism and expansionism. Weigley, Kennan, and Gaddis, who were cited above, are all representative of a school of American history which fails, either wilfully or through ignorance, to recognise the expansionist impulses that have long had such a profound influence on American policy and action in its own region -- that is, the entire Western Hemisphere stretching even to Japan and China -- and the rest of the world.

The Roosevelt Corollary to the Monroe Doctrine was an unambiguous statement of the lack of ambiguity in the commitment of the United States to preserve its ""Closed Door"" or "sphere of influence policy" in the Western Hemisphere. Theodore Roosevelt first enunciated his corollary in a message to Congress in December 1904. The corollary asserted the exclusive right of the United States to intervene anywhere in the Western Hemisphere to prevent or forestall the interference of outside powers. Such American interference in the domestic affairs of the nations of the hemisphere would, Roosevelt claimed, reverse or prevent a "general loosening of the ties of civilized society".\textsuperscript{30} The rhetoric employed by Teddy Roosevelt verbalised a widely held belief that it was the manifest destiny of the United States to exercise its power and spread its influence throughout the Western Hemisphere where and whenever this were possible. As will be seen below, the United States had agreed earlier but reluctantly to share power in China, but this was never to be allowed in the Caribbean or Latin America where it was intent on carving out an "exclusive sphere of influence." According to Kolko,

\begin{quote}
[T]he first manifestation of this hemispheric system was outlined in the Platt Amendment of 1901 permitting Cuba a purely rhetorical independence: the reservation of the right of reentry for United States troops, United States control over Cuba's foreign policy and all treaties, the freedom to maintain bases...and the Cuban acceptance of all acts of the American military governor. With the Hay-Pauncefote Treaty of 1901 the United States retrieved
\end{quote}

\textsuperscript{29} Brock, \textit{op. cit}, pp. 413 & 414

\textsuperscript{30} Quoted in Kolko, \textit{op. cit.}, p. 46. Guantánamo Bay, one of the American bases in Cuba, even to this day violates Cuban sovereignty.
from Britain total control over any future Isthmian canal, and it successfully opposed British and German presence in the period thereafter.\textsuperscript{31}

Though the war with Spain was briefly mentioned above, there is yet reason for considering it in a little more depth. In going to war with Spain, the United States publicly claimed to be seeking to wrest Cuba from Spain's control, thus enabling it to achieve its independence. As seen above, however, the strategic significance of the island was paramount in American thinking, a significance that was behind the onerous provisions of the Platt Amendment. The Philippines, another of Spain's possessions, was also a target of American covetousness. There, commercial considerations were foremost in America's strategic calculations. Control of the Philippines islands would enable the United States to open the door and enter the intoxicatingly big markets of China, Korea, French Indo-China, the Malay Peninsula and the Indonesian Archipelago.\textsuperscript{32}

In April 1898 Admiral Dewey, who sailed from Hong Kong where the American fleet had been anchored, attacked and destroyed the Spanish naval forces in Manila Bay. The earlier sinking of the United States battleship \textit{Maine} in Havana provided a doubtful pretext for this action -- there was no evidence of Spanish government involvement in the sinking. Soon after, an expeditionary force was dispatched from San Francisco to take possession of the Philippines islands. All this despite the fact that in early April the Spanish government had seemed willing to accede to American demands, namely autonomy for the Philippines that was acceptable to the Filipino insurgents or cession to the United States.\textsuperscript{33}

The latter was obviously far more desirable to the United States than the former, given that it fought a protracted war against the insurgents "...from 1898 until well into the next decade, when anywhere from 200,000 to 600,000 Filipinos were killed in any orgy of racist slaughter that evoked much congratulation and approval from the eminent journals and men of the era who were also much

\textsuperscript{31} \textit{Ibid.}

\textsuperscript{32} van Alstyne, \textit{op. cit.}, p. 75

\textsuperscript{33} Kennan, \textit{The War with Spain}, \textit{op. cit.}, p. 10
concerned about progress and stability at home." Van Alstyne describes this war of independence as "embarrassing and troublesome" for the United States' image abroad and unconvincingly seeks to excuse it by claiming that "...knowledge that Germany meant to exploit the insurrection sealed American determination not to let any of the islands escape." The United States also annexed Hawaii in June 1898 and in June-July of the same year completed the "...lifeline between Hawaii and the Philippines with two intermediate points, Guam which it needed as a coaling station and Wake Island as a cable landing." In addition, Puerto Rico was annexed in 1898.

Of course, expansionism had also long been evident in the westward, continental push of American settlement. This has been mentioned above in the context of American conflicts with European powers over the extent of their presence on the American continent (or elsewhere in the Western Hemisphere.) As will be seen below, railways were extremely important as a tool in the continental expansion of the United States, especially in the way they facilitated conquest and seizure of Amerindian territories. A "Manifest Destiny" was early being trumpeted to justify, if not make obligatory, the westward and southern advance of "American civilization".

The idea of manifest destiny gained popularity and respectability during the war with Mexico in 1846, and had a little earlier expressed the Democratic Party's enthusiastic embrace of the opportunities opened up by the prospect of territorial expansion. According to Brock, in the work of Ralph Waldo Emerson "...the crude concept of "manifest destiny" had been joined with the Puritan idea of Providence in an affirmation that every race had a contribution to make toward the advance of civilization, that this destiny must be understood and pursued, and that peoples who failed in this betrayed not only themselves but mankind as a whole." There is little evidence that Emerson directly influenced Abraham Lincoln, but, says Brock, "...there is a striking parallel between the closing

34 Kolko, op. cit., pp. 286-287
35 van Alstyne, op. cit., p. 75
36 Ibid.
passages of the President’s first message to Congress and the last chapter of Emerson’s *English Traits*.” Each in his own way tied America’s destiny to its duty to the entire human race. For William Appleman Williams, ‘Manifest Destiny’ “...symbolized the assertion that God was on America’s side” rather than the more modest claim that the country had joined the legions of the Lord.” The logic beneath this assertion was alarmingly simple. The United States was the “most progressive” and most virtuous society because its people made “proper use of the soil”.

In the Twentieth Century, such sentiments and their up-dated versions were to have a profound influence on American policy makers—they were constitutive of the mature *doxa*. Indeed, the history of the United States’ relations with the Soviet Union particularly after the Second World War, and with the People’s Republic of China, Vietnam, Cuba, and so on, is strong evidence that successive American administrations have regarded it as America’s duty to save the world for democracy and that this duty was determined by its destiny. There was also a strong element of this sentiment in the official legitimations for the entry of the United States into the First and Second World Wars.

Conquest of Indian territory had begun well before the advent of the railway. While in many respects Jefferson was a humane and tolerant man, nevertheless during his presidency the Indians were relieved of “vast tracts” of land. Jefferson was a “...firm believer in American destinies, and trusted too readily that they could be harmonised with Indian well-being.” Jefferson had believed that the Indians displaced by the westward advanced of white settlement could be moved into the land acquired in the Louisiana Purchase. They would there be encouraged to give up hunting and instead cultivate small farms, trade with whites and carry on manufactures so that they would soon be enjoying the benefits of civilization. However, “Indian removal was necessary for the opening of the vast American

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37 Brock, *op. cit.*, p. 213
39 Kiernan, *op. cit.*, pp. 26 and 24
lands to agriculture, to commerce, to markets, to money, to the development of
the modern capitalist economy." With the coming of the railway, the expansion
of white settlement accelerated apace. The figures tell the story of the expansion
of white settlement, and of the increasing pressure being exerted on Indian
settlement:

In 1840 there were just over seventeen million Americans; by 1880 there were over fifty million. In 1840 there were 2,818 miles of railroad in operation and 491 miles under construction; by 1850 there were 9,000 miles in operation and by 1860, 30,626. Lines completed topped 1,000 miles for the first time in 1848 and reached a peak in 1854 with 3,442; in 1872, on the eve of the great international depression, 7,439 miles were completed, and the first link between the Atlantic and Pacific had been finished three years before.

Railways gave the United States Army the ability to operate during the winter months, an advantage which the Indians obviously did not enjoy. The construction of the transcontinental railways immensely facilitated the operations of the Quartermaster’s Department which was responsible for construction of the Army’s quarters and barracks. During the winter, the railway was able to bring food, warm clothing and other supplies to the soldiers in distant outposts. “Thus supported”, says Weigley, “the Army again and again won its most decisive victories in the winter.” He cites in this regard George Custer’s victory in the battle of the Washita, George Crook’s and Nelson Miles’ defeat of Sitting Bull and Crazy Horse, and Chief Joseph’s vow “to fight no more forever” after the defeat of his forces.

As amply demonstrated above, it would be wrong to regard American diplomatic and military activity at the turn of the present century as being somehow aberrant, out-of-character or non-traditional. The United States had been expansionist from its very inception, and this had involved conflict and war with two of the pre-

41 Brock, *op. cit.*, pp. 22-23
42 Weigley, *op. cit.*, p. 269
eminent European colonial powers of the time, namely Britain and Spain. It had also been able to come to terms with France, and conclude the Louisiana Purchase. The United States had pursued an activist and interventionist diplomatic and military policy in Central America, the Caribbean, the Western Pacific and to a lesser extent in east Asia as well. The Monroe Doctrine, and its successive enlargements, was a clear statement not only that American horizons extended well beyond the continental United States but also that the European colonial powers would not be permitted to shrink them. The entire Western Hemisphere, not simply the Caribbean and Central America, had become, or was intended to become, an American sphere of influence whether the rhetoric employed by America's leaders and their apologists always owned to that fact or not. Certainly, by the turn of the century unambiguously expansionist sentiments were being voiced by political leaders, the popular press and by a number of more serious writers and thinkers such as Alfred Thayer Mahan whose writings on such matters will be considered below. The terms they employed to express these sentiments did not suggest any reluctance or lack of resolve in their willingness either to enlarge the American empire or to adopt a more activist diplomacy on the global stage. The Open Door policy in China is a good example of the activist diplomacy that the United States was pursuing at the turn of the Century.

2.4 The Open Door policy and American imperial expansion in east Asia

The Open Door policy of the United States was first enunciated during the period in which it vied with the other Great Powers for favour and fortune in China. George Kennan reckons that,

[T]he importance of the Open Door incident lay largely in the fact that it introduced a pattern destined to become characteristic of American diplomacy for forty years into the future. During this entire period the burden of our song would continue to be the Open Door and the preservation of the territorial and administrative integrity of China. Time after time we would call upon other powers to make public confession of their adherence to these principles. Time after time we would receive from them reluctant, evasive, or qualified replies, putting us on notice that no
Characteristically, Kennan's interpretation of the Open Door episode is superficially appealing but at a deeper level well wide of the mark. There is no doubt that during the late 1890s east Asia was the arena for much jockeying for position and bickering among the Great Powers, principally the United States, Russia, Britain, France, Germany and Japan. There is also no doubt that the United States did attempt to gain agreement from the other powers to honour the territorial and administrative integrity of China. However, this leaves unanswered the more fundamental question of why the United States sought such a commitment from its rivals. What did the authors of the Open Door notes hope to gain by convincing the rivals of the United States in China to come to the party?

The answer comes from considering the gains that the other powers had already made or realistically hoped to achieve there. For their part, the Russians sought a naval base at Port Arthur and a commercial port at Dairen in their determination to establish a privileged position in Manchuria. These two ports were to be connected by rail with the Trans Siberian railway which would give Russia access to the Pacific Coast of Eurasia and to the western Pacific, part of America's "sphere of influence". The increasing German presence in China was marked by the consolidation of "their control over the port of Kiaochow and their influence in the Shantung Peninsula". The French had been able to negotiate with the Chinese government for "...the lease of a port, for railroad concessions, for the appointment of a French citizen as head of the Chinese postal services, and for other favours." Meanwhile, Britain's control of Hong Kong, for which it negotiated a 100-year lease in 1897, allowed it to preserve its 80 per cent stake in the China trade. (In 1898 it was also able to lease Kowloon on the Chinese mainland.) The remaining 20 per cent of the China trade was left to the other powers to fight over. Britain's very favourable position in the China trade had

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43 George F. Kennan, 'America and the Orient' in Kennan, American Diplomacy, p. 39
44 George F. Kennan, 'Mr Hippisley and the Open Door' in American Diplomacy, pp. 22 and 28
allowed it to pursue an open door policy in China, “that is, equality for everyone in customs treatment, harbour dues, etc., for the importation of consumption merchandise.” Now, with the other powers muscling in on its turf, Britain feared partition of China into separate spheres of influence. Indeed, this appeared to be becoming a reality. This is precisely what the United States feared. Great power spheres of influence in China would not give the United States the opportunity to tap the supposedly vast market that awaited it there.

Three “Open Door notes” were sent to the governments of the various powers who were contending for favour in China. Secretary of State Hay’s first Open Door note of September 1899 “...asserted the proposition that American entrepreneurs ‘shall enjoy perfect equality of treatment for their commerce and navigation’ within all of China”, that is, even in the “spheres of interest” which the other great powers possessed there. The second note, of July 1900, was designed to forestall the further partitioning of China into formal colonial possessions. The third note asserted that the United States considered loans to be an integral part of normal commercial activity the purpose of this being “...to close every formal loophole through which America’s competitors might seek to counter the strategy of the open door.”

The significance of the Open Door notes does not lie so much in the greater leverage they were designed to give the United States in dealing with its competitors in China. As Gabriel Kolko points out, the Open Door doctrine was more concerned with “relations between the expansionist foreign powers already there”. In 1899, China accounted for about a half of the foreign exports of American cottons-good manufacturers, and railroad promoters were also interested in the opportunities that China might present. Both of these groups were represented in the then influential American Asiatic Association. However, by 1910 “...the China market was utterly inconsequential to all but two American industries -- illuminating oil and cotton textiles -- and it took 8 percent of the

45 Ibid., p. 22
46 Williams, op. cit., p. 51
former and 28 percent of the latter's foreign trade in 1910. Naturally, American
governments were not only interested in present realities, they were also keen to
see that there was no premature closing of potential foreign trade and investment
opportunities. However, the real importance of the Open Door notes does not
even reside there. The Open Door notes, says Williams, together enunciated a
strategy of "non-colonial imperial expansion":

Based on the assumption of what Brooks Adams called
"America's economic supremacy", the policy of the open
door was designed to clear the way and establish the
conditions under which America's preponderant economic
power would extend the American system throughout the
world without the embarrassment and inefficiency of
traditional colonialism. As Hay indicated with obvious
anticipation and confidence in September 1899, the
expectation was that "we shall bring the sweat to their
brows."

The open door strategy was entirely consistent with the notion or ideology of
manifest destiny. America's economic supremacy was widely taken to be a
manifestation of America's supremacy or superiority in other domains as well.
Nowhere was this more clearly evident than in the benighted practice of
colonialism in which all the great European powers enthusiastically participated.
The policy of the United States in China was steadfastly opposed to spheres of
influence and colonial partition of Chinese territory. There was obviously some
embarrassment arising from the fact of America's annexation of Hawaii and
Puerto Rico and its predatory actions on the island of Cuba and in the Philippines.
Charges of inconsistency and even hypocrisy could well be levelled at the policy
makers, business leaders, newspaper editors and others who enthusiastically
backed this obviously expansionist and colonialist activity by the United States.
However, even here the opinion leaders in the United States could find solace.
Prising Spain out of its possessions in the New World might be seen as a

47 Kolko, op. cit., pp 43 and 45.
48 Williams, op. cit., pp. 50-51. For more on the "non-colonial imperial expansion" of the
United States, that is its construction of an informal empire, see Gareth Steadman Jones, 'The
History of US Imperialism' in R. Blackburn (ed.), Ideology in Social Science: Readings in
Critical Social Theory, Fontana/Collins, 1972, pp. 205-237. See also J.F. Petras and M.H.
Morley, 'Imperialism and Interventionism in the Third World: US Foreign Policy and Central
America', Socialist Register, 1983, pp. 219-239
progressive gesture, especially given that it was a decadent old power whose colonial policy had been marked by excessive brutality and an inability or unwillingness to bring the benefits of modern civilization to the inhabitants of its colonies. Converting them to Catholicism as the Spanish were wont to do was hardly the same thing. Local insurgents who refused to enjoy the fruits of American civilization and who stubbornly fought on for independence on their own rather than America's terms could expect nothing short of stern disciplinary and remedial action, even if it were brutal and oppressive as well.

The advocates of American expansion were able to invoke a number of reasons and rationalisations for the seizure of territories and the annexation of islands. George Kennan neatly catalogues them:

Some said it was our manifest destiny to acquire these territories. Others said that for one reason or another we had a paramount interest in them. Still others maintained that we, as an enlightened and a Christian nation, had a duty to regenerate their ignorant and misguided inhabitants. Another argument was that they were necessary to the defense of our continental territory. Finally, it was alleged by the commercially minded that we had to take them, Hawaii and the Philippines in particular, to assure ourselves of a fitting part in what was regarded as the great future trade with the Orient.

Kennan's list is quite inclusive and covers the main arguments that were being advanced by 'American expansionists' at around the turn of the century. However, he regards as much more convincing the argument of "contingent necessity". According to this argument, unless the United States had seized the territories it did, other powers would have done so and this would have been a much worse outcome for all concerned. (A version of this argument had been used by President Grant to justify the annexation of Santo Domingo.) Kennan believes this argument to have been "unsubstantial" in the case of Puerto Rico and Hawaii for "[T]here was no real likelihood of anybody else intervening." However, for Kennan, the argument had greater merit in the case of the Philippines islands where a "tussle" between Britain and Germany for their possession would have

49 Kennan, 'War with Spain', op. cit., p. 15
been the result of the United States’ failure to take them. More alarming, was the prospect that “[S]ooner or later, the Japanese would also have become competitors”.

What Kennan fails to notice is that the moral and economic rationalisations for expansionism and imperialism were not always separate or necessarily contradictory. His claim that the American possession of the Philippines was a better result for the islands than the other outcomes he mentions also intimates that the argument of contingent necessity was not at odds with moral arguments in favour of expansionism -- or with the economic arguments. As far as the advocates and apologists of American imperialism were concerned, America’s economic superiority derived from the moral and racial superiority of its white, Protestant inhabitants and the civilisation they had created. Its economic superiority was, therefore, an expression, a manifestation, proof even of the inherent qualities of the American people and their civilisation. Moreover, expansionism, acquisition of territories, and the vigorous promotion of American economic power and influence abroad could all be interpreted as having a part in the unfolding of America’s destiny. In the process of seeking out new opportunities for American capitalism, the primitive, ignorant and misguided peoples of the earth would be brought under the uplifting influence of American civilisation. In pursuing its own interests, the United States would automatically raise those peoples with whom it came in contact to a higher level of society and economy. It was precisely for these reasons that, as in the case of the Philippines, America’s possession of territories was to be preferred to their possession by the other great powers.

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50 Ibid., pp. 16-17
With regard to the United States’ overseas expansion, William Appleman Williams draws attention to the attempt by some American clergy at the end of the Nineteenth Century “...to marry traditional Christianity with the new doctrine of evolution and so adjust their theology to the latest revelations, and also to sustain their influence in the age of science.” Specifically, the Congregationalist minister Josiah Strong saw in the theory of evolution a corroboration of the doctrine of predestination. For him, and others besides, the United States had been appointed by God to lead the Anglo-Saxons in their mission to transform the world and raise it to a higher state.51 Gabriel Kolko argues that after the Civil War, “[F]ew, if any, American leaders...challenged the assumption that the expansion of Caucasian nations was synonymous with human progress.”52 This “doctrine of racial supremacy” could work separately or in conjunction with the Christian “missionary impulse”. Victor Kiernan observes that Darwinism (or social Darwinism) was a two-edged sword in that on the one hand it could be used to support racial supremacist views but on the other trigger deep misgivings about the supposed superiority and therefore the future of European and American civilization. More disturbingly for defenders of the status quo, as he points out, Marxists also found in Darwinism an “endorsement of class struggle”. But all was not lost:

Abroad as at home Darwinism could be enlisted, in a positive aggressive version, on the conservative side, instead of being left to breed corrosive doubts. Moreover the nation’s history allowed expansionism to be depicted as simply a logical sequel, a next chapter. One frontier had closed, others were opening; some inferior races had been quelled, the time had come for others to be disposed of. This line of argument was far more persuasive than any preaching of new, untried courses could be. [Senator A. J.] Beveridge maintained that modern shipping and telegraphy made possession of overseas territories just as natural as landward expansion in the past. Much of Theodore Roosevelt’s skill lay in convincing Americans that this was not ‘imperialism’, but simply a natural continuation of the country’s previous growth.53

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51 Williams, op. cit., p. 60
52 Kolko, op. cit., p. 50
53 Kiernan, op. cit., p. 85'
Teddy Roosevelt’s skill notwithstanding, as the Open Door episode in China had clearly demonstrated, landward and hemispherical expansion was a far simpler undertaking than expansion into east Asia or elsewhere around the globe where the other great powers were already established or were seeking to install themselves. An open door policy might indeed work, or nearly work, even in those locations, but it could not always be guaranteed to do so. Sooner or later, American expansionism was bound to come up against more determined opposition from its rivals in the world-economy than it had met in the Nineteenth Century. America’s own expansionism was not compatible, could not always peaceably coexist, with the expansionism and imperialism of the other great powers.

While the policy of containment is the subject of the next chapter, it is important to be clear even here that it, and the strategy of deterrence, was not a novel but a very traditional response to the difficulties that the United States had encountered in pursuing territorial, hemispheric and extra-hemispheric expansion and that it continued to encounter as it sought an expanded world role in the Twentieth Century. As the Monroe Doctrine went through successive enlargements and reinterpretations during the Nineteenth Century and into the Twentieth, it acquired characteristics that preserved its relevance for the United States as it grew in economic, and naval and military strength. (The diminishing importance of the “concert by agreement” with Britain was but one manifestation of this trend.) Naturally, the diplomatic, trading and imperialist horizons of the United States widened as it grew in power. One inevitable outcome of this process was that it

54 Williams discusses another of these ‘open door episodes’ this time in Africa. According to Williams, the “relationship between economic expansion and overseas reform” was “most fully (and even brilliantly) explained and formally made part of the Open Door Policy” at the Algerica Conference in 1905-6. He continues, “[G]rowing out of the imperial rivalry in Africa between Britain, France, and Germany, the Algerica (or Moroccan) Conference proceeded on two levels. The dramatic battle involved limiting German penetration to a minimum while giving it superficial concessions. In that skirmish the United States sided with England and France. But the conference also offered the United States a chance to renew and reinforce its old drive of the 1880s to secure equal commercial rights in Africa. Roosevelt and Secretary of State Root used the strategy of the open door to wage both campaigns.” Williams, op. cit., p. 64. Kennedy describes the United States’ attendance at the Berlin West Africa Conference of 1884-5 as “anomalous and confused: after grandiose speeches by the US delegation in favour of free trade and open doors, the subsequent treaty was never ratified.” Kennedy, Rise and Fall, op. cit., p. 318
had more earnestly to confront the expansionist and imperialist designs of other
great powers which were also growing in economic and military power.
Accordingly, as it expanded the Doctrine became more exclusionary and less
defensive than it had been when it was first enunciated. Moreover, it increasingly
relied for its effectiveness on America's economic superiority and naval and
military strength. Similarly, the policy of containment was highly exclusionary (of
the Soviet Union and its allies) and relied for its effectiveness on the economic
and military superiority of the United States. Containment's reliance on American
military superiority harnessed it to the strategy of deterrence. This coupling gave
the policy a sharp aggressive edge. Like the doctrine or ideology of Manifest
Destiny, the policy of containment tapped deep springs of self-righteousness and
moral imperiousness that arose from the belief that American economic success
and superiority were manifestations of the underlying qualities in the American
people and their civilisation. The decisive involvement of the United States in the
war against Fascism and Nazism, and its leadership of the post-War struggle with
communism only confirmed and strengthened these beliefs and ideologies. As
argued in the Introduction, the Second World War was the event which, more than
any other, shaped the formation and emergence of the mature doxa.

As the United States developed into a major force in the capitalist world-economy
and it began to play an expanded world role that was in accordance with its strong
position in the world-economy, so too did a uniquely American geopolitical
outlook or worldview emerge and develop. The emergence of this geopolitical
worldview can be traced to the fin de siecle when American non-colonial imperial
expansion in east Asia was forcing the United States to contend with the imperial
and colonial designs of the other great powers that were not always compatible
with its own. As seen above, the Open Door policy was a response to the
difficulties the United States was experiencing with the other great powers in
China. This, and other factors that were influential in the development of an
American geopolitical worldview, and the expanded naval and military forces
which gave it substance, will be examined below. While this examination will
concentrate on those events and developments in east Asia which helped to shape
the American geopolitical worldview, the significance of America’s transatlantic links that were analysed in Chapter 1 should not be overlooked. As mentioned earlier, these transatlantic links and American imperial expansion into east Asia together gave the American geopolitical worldview an enduring Eurasian motif. Among the main factors which account for the durability of this motif are the Bolshevik Revolution, the attempts by Germany to dominate Europe in World Wars I and II, and Japanese imperial ambitions on the Asian mainland particularly with respect to China. After the Second World War, with the Soviet Union territorially extended and militarily second only to the United States, Germany and Japan defeated, and much of the rest of the capitalist core in ruins, American geopolitical thought and strategic policy concentrated on the rimlands and offshore island groups of the Eurasian mainland. As far as the rimlands were concerned, Western Europe was the key region and, of the offshore island groups, Japan and Great Britain were by far the most significant. It was noted above that variations and developments on Halford Mackinder’s belief that Russia was the power that was most likely to dominate the Eurasian landmass, and therefore to put pressure on its rimlands and offshore islands, had a profound influence on the post War policy of containment and strategy of nuclear deterrence. The origins and sources of containment will be analysed extensively in the following chapter. However, in the next section American naval and military expansion will be considered in the context of the growing strategic importance of east Asia late in the Nineteenth Century and in the first part of the Twentieth. This is the backdrop to containment.

2.5 Ocean and earth in the emerging American geopolitical outlook

It was the turn-of-the-century advocates of sea power and the “big navy” enthusiasts, such as Alfred Thayer Mahan and Theodore Roosevelt, who played perhaps the most important part in the emergence and early development of a uniquely American geopolitical outlook and the building of the expanded naval (and military) forces that were consistent with it. Mahan’s well-publicised views reveal the contours of that emerging geopolitical outlook. In his classic account of British sea power, *The Influence of Sea Power Upon History*, Mahan touched on
many issues and problems which he hoped the building of a large, American bluewater naval fleet would help to overcome. Chief amongst his concerns was the isthmian canal. A Central-American canal would, according to Mahan, have enormous geopolitical significance for the United States:

If one be made, and fulfil the hopes of its builders, the Caribbean will be changed from a terminus, and place of local traffic, or at best a broken and imperfect line of travel, as it now is, into one of the great highways of the world. Along this path a great commerce will travel, bringing the interests of the other great nations, the European nations, close along our shores, as they have never been before. With this it will not be so easy as heretofore to stand aloof from international complications.55

Further on, Mahan observes that Alaska was the United States’ only “outlying possession” (he was writing before the annexation of Hawaii) and that all important points on the frontiers of the United States were readily accessible, “cheaply by water, rapidly by rail.” The weakest frontier, says Mahan, was the Pacific Coast but “...this is far removed from the most dangerous of possible enemies.” The United States was so well endowed with resources that it would be able to be self-sufficient. However, the opening of the isthmian canal would, thought Mahan, greatly diminish the geopolitical and strategic advantages that had hitherto been enjoyed by the United States by dint of its geographical location. Should the United States “…be invaded by a new commercial route through the Isthmus, the United States in her turn may have the rude awakening of those who have abandoned their share in the common birthright of all people, the sea.”56

Except in the case of a nation “which has aggressive tendencies” -- where the navy is simply a “branch of the military establishment” -- a navy says Mahan is kept to protect a nation’s peaceful or merchant shipping. According to Mahan, the United States had no aggressive intentions and had allowed its merchant fleet to disappear. The “dwindling of the armed fleet and general lack of interest in it” were, therefore, “strictly logical consequences.” But when “sea trade [was] again

56 Ibid., p. 42; emphasis added
found to pay" a large merchant fleet would again be needed, and the United States would find itself compelled to revive its "war fleet". Indeed says Mahan, if the Central American canal came in time to be regarded as a "near certainty" it was possible that "...the aggressive impulse may be strong enough to lead to the same result". However, Mahan echoes the sentiments of those historians and authors quoted above who were reluctant to read any malevolence or aggressive intent into the foreign and military policies of the United States, when he smugly concludes, "[T]his is doubtful...because a peaceful, gain-loving nation is not far-sighted, and far-sightedness is needed for adequate military preparation, especially in these days."^57

In *The Influence of Sea Power Upon History*, Mahan had expressed a number of misgivings about the opening of a Central-American canal, particularly with regard to its implications for the security of the United States. The likelihood that this canal when completed would be controlled by the United States was not enough to dampen the concerns of American naval planners who worried about "...the strategical dilemma of dividing the fleet, or leaving one of the country's coastlines exposed: and the records of some officers in these years reveal a somewhat paranoid suspicion of foreign powers."^58 In an article for the *Atlantic Monthly* of August 1890, Mahan clearly revealed himself as one of these officers. In that article "...he warned of the 'many latent and yet unforeseen dangers to the peace of the western hemisphere' attendant upon the opening of a canal through the Central America Isthmus; hinted at the possibility of German intrusion into the area; predicted 'a great increase of commercial activity and carrying trade throughout the Caribbean Sea'; noted [as he had done in *The Influence of Sea Power Upon History*] that 'the United States is woefully unready...to assert in the Caribbean and Central America a weight of influence proportioned to the extent of her interests'; and argued for U.S. naval expansion to meet the threat."^59 Mahan's warnings and arguments did not fall on deaf ears. John Keegan notes

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^58 *Kennedy, Rise and Fall of the Great Powers*, op. cit., p. 319

that, "[S]o covetous was it thought that European powers would become of the Panama canal that arguments for a 'new navy' found ready support in Washington."\(^{60}\)

While the enlargement of the American fleet had begun during the late 1880s (it was not until the mid-1880s that the US navy first acquired modern, ironclad warships), nevertheless it was the Spanish-American war which gave the biggest stimulus to what he dubs the "'big navy' lobby"\(^{61}\) -- which had among its leading lights the likes of Theodore Roosevelt and Mahan himself. The relative ease with which the America navy had accounted for its Spanish adversary was powerful ammunition to Mahan and his supporters and their calls for continued naval expansion. (The "feeble Spanish squadron" was destroyed within twelve hours of Admiral Dewey's entry into Manila Bay.\(^{62}\) The naval lobby was also buoyed by scares of war with first Britain and then, from 1898, with Germany and the fleet building gathered steady momentum accordingly. As noted above, in 1895 the United States had quarrelled with Britain in a dispute over the Venezuelan border and in 1902-3 it prepared a battle-fleet to curb would-be German predations in Venezuela. It was also seen above that in 1901 the United States successfully negotiated the Hay-Pauncefote Treaty that had won from Britain agreement to total U.S. control over the future Central-American canal. In addition, remarks Kennedy, "[T]he acquisition of bases in Hawaii, Samoa, the Philippines, and the Caribbean, the use of naval vessels to act as 'policemen' in Latin America, and Roosevelt's dramatic gesture of sending his 'great white fleet' around the world in 1907 all seemed to emphasize the importance of sea power."\(^{63}\) This is not idle speculation for in the wake of all these developments and scares...the pace of American naval development accelerated. *South Carolina* and *Michigan*, the navy's first modern battleships, had actually anticipated the dreadnought design. By 1917, when the United States entered the First


\(^{61}\) Kennedy, *Rise and Fall*, op. cit., p. 319 and Keegan, p. 169

\(^{62}\) Crowl, *op. cit.*, p. 465

\(^{63}\) Kennedy, *Rise and Fall*, op. cit., p. 319. The 'Great White Fleet' cruised the world from 1907 to 1909.
World War on the Allied side, its battle fleet included fourteen dreadnoughts, built or building, all of powerful armament, high speed and advanced design. California and Tennessee...were probably the most advanced of their type in any navy, heavily armoured, of 21-knot speed and carrying twelve 14-inch guns in triple turrets.\textsuperscript{64}

The dramatic increase in the size of the United States Navy should not obscure the less spectacular growth in the size of the United States Army and the enlargement of its role that occurred at the same time. It is true, of course, that it was not until the United States entered the European war in 1917 that the size of its army finally reached European proportions.\textsuperscript{65} However, some of the details of the growth in size of the Army in the period before the First World War are worth considering. The Spanish-American War, the various island annexations engineered by the United States, a continued desire to direct the course of events and to prevent "external" great power meddling in the Caribbean and Central America, and American attempts to open the door in China were all involved in the expansion of the Army's role and size during this period. In this regard, the Spanish War is a particularly interesting and significant case in point. While "[a]rmy critics complained that McKinley was too much influenced by the maritime strategists of the Navy's War Board" (including Mahan), nevertheless the "Spanish War was a soldiers' war".\textsuperscript{66} After Dewey's easy handling of the Spanish naval squadron in Manila Bay, 11,000 troops were dispatched to Luzon at his request. As Crowl glibly puts it, "[C]onquest of the entire [Philippines] archipelago followed."\textsuperscript{67} The expeditionary force that was dispatched to Cuba

\textsuperscript{64} Keegan \textit{op. cit.}, p. 170. Dreadnoughts were modern, armour-clad and turbine-powered warships that figured prominently in the pre-World War I arms race between Great Britain and Germany. Although the US navy was "considerably smaller" than the Royal Navy, "...and with fewer Dreadnought-type battleships than Germany, [it] was the third-largest in the world in 1914." Kennedy, \textit{Rise and Fall}, p. 319. This is at odds with Karsten's world ranking of the United States Navy cited above.

\textsuperscript{65} On the eve of World War I, the Germany "...maintained a peacetime army of about 800,000 men. Calling in the reserves of men recently trained would yield about 1,750,000 first-line troops, with millions more of second-class "territorial" troops behind them. The French, with their smaller population" maintained a peacetime army "also numbered about 800,000. Their reserves gave them a first-line strength of about 1,500,000." Weigley, \textit{op. cit.}, p. 336

\textsuperscript{66} \textit{Ibid.}, p. 306

\textsuperscript{67} Crowl, \textit{op. cit.}, p. 465
from Port Tampa in Florida during the war with Spain "...consisted originally of 14,412 Regulars and 2,465 volunteers, the latter in the Rough Riders and two famous National Guard regiments, the 2nd Massachusetts and 71st New York." Later, reinforcements were sent raising the total number of volunteers to 7,443. The total size of the Regular Army in 1899 was 65,000 to be augmented by the recruitment of up to 35,000 volunteers. In 1901, Congressional authorization allowed the Regular Army to be expanded to 84,799 men and 3,820 officers. The Army remained at about this strength until the First World War. Even though these figures are low by European standards, they nevertheless indicate a willingness on the part of America's leaders to build and maintain an army that would enable them to intervene effectively in perceived trouble spots in the Western Hemisphere. They showed little hesitation in using the Army for this purpose, as Pershing's punitive expedition into Mexico on the eve of the entry of the United States into World War I demonstrates.

Already in 1900, in the midst the Open Door episode, the United States had sent a force of 5000 troops to China to participate with the other western powers (and Japan) in the quelling of the Boxer Rebellion. American interest in China outlived by several generations the Boxer Rebellion and the Open Door episode. As a result, later in the century the United States would have to contend with Russian expansionism and Japanese imperialism there. In the first third of the century it was more inclined to support the latter, although Japan's plans for China directly and repeatedly clashed with American designs. An important event in shaping an American geopolitical outlook not only for east Asia, but also for the entire Eurasian landmass, was the Russo-Japanese War of 1904-5. Of course, China, more specifically Manchuria, was at the centre of this armed conflict. By the end of 1900, after the Boxer uprising had been put down, "...Russian forces

68 Weigley, op. cit., p. 306
69 Ibid., p. 308
70 Ibid., p. 318
71 Kolko, op. cit., p.44. Paul Kennedy more conservatively estimates that the number of American soldiers sent to China was 2500. Kennedy, Rise and Fall., op. cit., p. 318. Unaccountably, Russell Weigley fails to mention the Boxer expedition at all in his History of the United States Army.
were in possession of the whole of Manchuria, including the treaty port of Newchwang; and the Chinese were told to make no concessions to foreigners in either Manchuria or Mongolia without Russian consent."72 This was not at all in keeping with Japanese intentions for the area. Japan had been involved in the Boxer uprising on the side of the western powers, and had also won the "upper hand" in Korea. It now wanted its share of the spoils in Manchuria and thus had to deal with the fact of Russia's control of the region.

In the war of 1904-1905 the Japanese succeeded in expelling the Russians from South Manchuria. This the Japanese were able to do with the implicit backing of the United States. American interest in the settlement in Manchuria was indicated by President Theodore Roosevelt's hosting of the peace conference in Portsmouth, New Hampshire. (Roosevelt was later awarded a Nobel Peace Prize for his role.)73 The terms of the treaty negotiated there included a "free hand" for Japan in Korea and a Russian military withdrawal from the south of Manchuria. (In subsequent agreements, in 1907 and 1910, Japan and Russia agreed to a mutually satisfactory division of Manchuria thus acknowledging each other's sphere of interest there and signalling their intention to exclude other powers from any involvement in that country.)

In 1902 Britain and Japan had entered into an alliance that was at once an expression of Britain's declining power and of Japan's emergence as a great power. According to Kennan, that alliance was the basis of Japanese security "for many years to come".74 During the Portsmouth conference Britain and Japan agreed to a renewal and strengthening of the Alliance. Paul Kennedy attributes the British Admiralty's desire for an alliance with Japan to "British battleship inferiority" in the Far East. He remarks, "Russia's defeat in the war with Japan eliminated its navy, and had the additional bonus of allowing the British to

72 van Alstyne, op. cit., p. 86
73 The display of American concern over events in Manchuria was in part motivated by the fact that American, and British, banks had helped to finance Japan's war effort. The New York investment bank Kuhn, Loeb (which moved into the Rockefeller orbit in the 1930s) was one of these. Ibid., pp. 88-89
74 Kennan, 'Mr Hippisley and the Open Door', op. cit., p. 35
withdraw their battleship squadron from the Far East -- just in time to join those other vessels being stationed in the North Sea to counter [German grand admiral] Tirpitz’s High Seas Fleet”. What animated the British and Americans during the Russo-Japanese War was fear of Russian expansionism. During the war with Russia, Roosevelt, his Secretary of State Elihu Root and others praised Japan’s deeds in picturesque phrases like “’playing our game’, ‘battling on the side of civilization’, and representing the ‘Anglo-Saxon races.’”. In east Asia, Mahan identified two formidable threats to the security and well being of the United States and the West generally. Russia was already a demonstrable threat, China would perhaps come to represent an even more ominous danger in the future. Crowl observes that while Mahan was not optimistic about the commercial opportunities that might be opened up in China, he nevertheless did favour the Open Door policy, but “...was more concerned about the military threat posed by a modernized China than beguiled by the prospect of four hundred million added customers.” For Mahan, Russia was a different story. Crowl describes Mahan as writing in 1900 that, 

[T]he most pressing “problem”...was Russia, whose expansionist aims in eastern Asia had yet to be checkmated by Japan. Conceding Manchuria as already lost to the great Slavic state, Mahan suggested a coalition of sorts among the four “maritime states” of Germany, Japan, Great Britain, and the United States which “by their positions on the eastern side of Asia seriously impede advance from the north.” Specifically what he had in mind, as he explained to Vice President Theodore.

75 Paul Kennedy, ‘Arms Races and the Causes of War, 1850-1945’ in Kennedy, Strategy and Diplomacy, op. cit., p. 168. In 1921 Britain abandoned the Anglo-Japanese alliance and accepted “parity” with the United States. The reasons for this British capitulation were good ones: a naval race with the latter had threatened and this at a time of economic recession. Nevertheless, in the interwar years the United States “...did not build up to treaty limits, and Britain, although restricting its naval construction, remained the world’s principal sea power.”

76 van Alstyne, op. cit., p. 88

77 Crowl, op. cit., p. 467
Roosevelt, was the projection of naval power into the Yangtze valley. 78

At the turn of the century, it was obvious to all observers that China's territorial and political integrity was so compromised that it was still a very long way from mounting the sort of challenge of which Mahan had warned. It was not until 1949 when the communists under Mao's leadership forced Chiang Kai-shek and his nationalist Kuomintang forces to beat a retreat from the mainland of China to the island of Formosa that the territorial and political integrity of China was finally assured. Even at the time of the success of Mao's forces in the Chinese civil war, Mahan's earlier warning would have seemed to be more a product of paranoid suspicion than considered geopolitical judgement. Early in the Twentieth Century, the combination of China's servile frailty and the celebrated defeat of Russia by Japan meant that the latter's own expansionist aspirations could be easily overlooked -- and thus later less easily reined in.

Michael Howard claims that Japan graduated as a Great Power with its victory over Russia. In contrast, Richard Perren is more circumspect:

By 1900 Japan was still not regarded as a full equal by Western nations, but she was now accorded greater respect. In the next decade this was built upon with the Anglo-Japanese Alliance in 1902, the defeat of Russia in 1905, and the annexation of Korea in 1910. By 1912 [when the Emperor Meiji died] there was no doubt that Japan had achieved 'Great Power' status. 79

78 Ibid., p. 466. It is clear that when Mahan talks of the "positions" of the "maritime states" on the eastern side of Asia" he means their treaty ports, railroad concessions, naval bases and the like in China.

79 Richard Perren, 'On the Turn -- Japan, 1900', History Today, Vol. 42 (June, 1992), p. 32 and Michael Howard, 'Men Against Fire: The Doctrine of the Offensive in 1914', in Michael Paret (ed.), Makers of Modern Strategy, op. cit., p.518. As van Alstyne comments, Mahan was one of those who failed to recognise "...the role that Japan was about to play on the stage in north-east Asia." op. cit., p. 86. This failure was due to his fear of China and, more importantly, to his desire to contain Russian expansionism.
As far as the United States and Great Britain were concerned, before the 1920s Japan was the key to preventing (or, in later parlance, "containing") Russian expansionism in east Asia. After the Second World War, Japan again assumed this role for the United States. George Kennan argues that Britain and the United States have both long pursued policies which sought to prevent a "single Continental land power" from exerting control over the entirety of the landmass of Eurasia (Britain's attempts to maintain a balance of power in Europe also had a long ancestry). Rather, their interest has been to maintain "some sort of stable balance among the powers of the interior" which would prevent any continental land power from subjugating the other Eurasian powers. If one power were allowed to become dominant over the other Eurasian powers, then it would be able to move on and "...conquer the seafaring fringes of the land mass, become a great sea power as well as land power, shatter the position of England, and enter...on an overseas expansion hostile to ourselves and supported by the immense resources of the interior of Europe and Asia." Support for the "prosperity and independence of the peripheral powers of Europe and Asia" was thus crucial to the strategy of preventing a continental land power from dominating the landmass of Eurasia. It seems that by the "peripheral powers of Europe and Asia" Kennan means England, and though he does not mention it by name, Japan. For Kennan, these powers present no threat to the United States because their "...gazes were oriented outward, across the seas, rather than inward to the conquest of power on land."80

Kennan, like Mahan, thus apparently failed to recognise the expansionist impulses that became increasingly powerful in Japan at the turn of the century. If so, this was an inexcusable oversight for Kennan, writing as he was in 1951 (he first delivered the lecture that was published under the title 'The War with Spain' in 1950) which was so soon after the defeat of Japanese imperialism in east and south east Asia. But it should also be remembered that at the time Kennan was

80 Kennan, 'The War with Spain', op. cit., p. 5; emphasis added. In 'American and the Orient', op. cit., Kennan is far more circumspect with respect to the expansionist ambitions of Japan on the Asian mainland in the first half of the Twentieth Century. These are two of the Charles R. Walgreen Foundation Lectures which are collected in Part 1 of American Diplomacy, and that were all delivered in 1950.
delivering his lecture, the United States was preoccupied with the Soviet Union and the People’s Republic of China and had enlisted Japan as an ally in prosecuting the policy of containment in Asia. Kennan was after all the architect of the containment policy. Whether or not Kennan’s error of historical judgement (or geopolitical oversight) was intentional, it is interesting to compare and consider the geopolitical situations of Japan and Britain.

Japan and Britain share a superficial geopolitical similarity (politically unified island groups immediately offshore from the Eurasian landmass), but at a deeper level they diverge rather sharply. That divergence has been well described by D. Clayton James:

> Although Japan bore a geopolitical similarity to Britain in its insular position near traditionally hostile continental nations, Japanese leaders from the Meiji Restoration of 1868 onward had envisioned their nation not as a leading maritime state but rather as the dominant continental power of East Asia. They saw the army as the primary instrument to achieve continental hegemony. The navy was to transport, supply, support, and protect the army and to provide security for its principal base of operations, the home islands.\(^{81}\)

In their attempt to make Japan the dominant power in east Asia, Japan’s leaders would eventually come hard up against America’s attempt to realise its completely incompatible objectives for that region. Thus they would have to confront American industrial strength and military power in their bid to achieve Japanese continental hegemony there. The impending confrontation of Japan and the United States had its beginnings quite early on, notwithstanding the occasional, sometimes even close, convergence of interest between the two powers. As Clayton James observes, “[T]he demise and rebirth of China as an Asian power were central to the rivalry and eventual armed conflict between America and Japan in the first half of the twentieth century.” Both powers “nourished illusions” and accordingly developed “unrealistic policies” for China before the Second World War and both attempted to put them into effect during

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\(^{81}\) D. Clayton James, ‘American and Japanese Strategies in the Pacific War’ in Peter Paret (ed.), *Makers of Modern Strategy*, op. cit., p. 706
that conflict. In World War II, Japan pursued a "continental military strategy" that was closely focused on China, while for its part the United States followed a maritime strategy "with priority given to Central Pacific operations."82

The Open Door policy was, argues Clayton James, the "main irritant" in Japan's relations with the United States. United States policy in east Asia was largely based on the "key principles" of the Open Door. The United States sought to ensure the "equal opportunity for all nations engaged in commercial and industrial relations with China" by preserving its "independence, sovereignty, and territorial and administrative integrity"83 and preventing it from being divided up into great power spheres of interest. It is important to note here that in the Nine Power Treaty of 1921, to which Japan was a signatory, the Open Door policy received "multilateral endorsement". This treaty had been negotiated during the Washington Conference (where the Anglo-Japanese Alliance met its demise) and, van Alstyne remarks, preserved the "myth of the 'sovereignty, the independence, and the territorial and administrative integrity of China.'" The preservation of this myth did not prevent the United States continuing to be the "...principal Western nation concerned with guarding China's integrity, although diplomatic pressure and moral suasion, rather than military or economic sanctions, were the only responses of the United States to Japanese moves against China until 1939."84

Nevertheless, as will be seen below, it was only a matter of time before the United States would have to step up its response to Japanese expansionism and its flagrant flouting of the Open Door principles in China. Seen in this light, the Japanese attack on Pearl Harbour in December 1941 was but the catalyst for a military reaction from the United States. Moreover, a sore point, not simply an "irritant", in American-Japanese relations was American control of the Philippines islands. American acquisition of these islands in the Spanish-American war "...brought American territorial and security interests to the periphery of Japanese imperialism." The imperialistic ventures of the Japanese

82 Ibid., p. 703
83 Ibid., p. 708
84 van Alstyne, op. cit., p.115 (emphasis added); Clayton James, ibid., p. 709
had been very successful in the final third of the Nineteenth Century and in the early part of the Twentieth and thus the peripheries of its empire were considerably expanded. The catalogue of Japanese victories, acquisitions and incursions is an impressive one. Already in the 1870s, Japan had acquired the Ryukyus and the Kurile islands. Then after a momentary pause, it enthusiastically set out again on the path of expansion in 1894. Between 1894 and 1915 Japan: "...soundly defeated China and Russia in successive wars, acquiring Formosa, the Pescadores, Korea, and portions of Manchuria and Sakhalin; negotiated a defensive alliance with Great Britain; seized Germany's colonies in China and the Central Pacific; and carved economic inroads into China" to the extent that the latter was nearly reduced to being a Japanese protectorate. After the First World War, Japan established a "deep strategic barrier against American naval advance into the Western Pacific" with its acquisition under League of Nations mandate of the former German possessions of the Marianas, Marshalls and Carolines.

All of the above notwithstanding, in the 1920s Japan appeared to turn its back on "aggressive expansionism". In a genuinely conciliatory renunciation of its past practices, it took part in the Washington Conference and, besides being a party to the agreements already mentioned above, it accepted that diplomacy was the best way to settle disputes in the Pacific. By joining the Kellogg-Briand Pact, it renounced war as a means of settling disputes between states. Japan also "returned the former German colony of Shantung to China" and withdrew the troops it had sent to prevent a Bolshevik takeover of Vladivostok in 1918. (By October 1918, the Japanese had 70,000 troops in eastern Siberia, strung out along the Trans Siberian railway "as far west as Lake Baikal." The Japanese had intended to absorb the region that became the Soviet Far Eastern Republic. In August 1918, the United States also had 7000 troops in Vladivostok, which it withdrew in 1920.) Nevertheless, the Japanese did not dismantle their strategic barrier in the

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85 Ibid., p. 708 and pp. 703-704
86 Keegan, op. cit., p. 171
87 Clayton James, op. cit., p. 704
88 van Alstyne, op. cit., p. 106
western Pacific. Consequently, the Marianas, Marshalls and Carolines were destined to play an important part in the looming Asia-Pacific War.

When in the 1930s the Japanese set out upon the expansionist road once more, China was again very much in their sights. The increasingly protectionist trading and economic policies adopted by the United States government during the 1930s depression were bound to harm Japan. Bilateral trade between the two nations had grown over the preceding decades, while the American-Chinese trade was insignificant, as it had been earlier in the century. American protectionism harmed Japan, leaving the way open for “extreme nationalists” to exploit the economic crisis for their own political advantage. The nationalists turned to the “old panacea of continental expansion” for the cure of Japan’s economic ills. The army became increasingly influential in national politics and, in defiance of “…civilian authorities in Tokyo, it provoked a clash with China over Manchuria and then conquered the territory in 1932.”

...the government, now dominated by the army, led the nation into a fateful war for the greatest prize yet — the conquest of China. Reviving and revamping earlier justifications, the Japanese leaders maintained that control of China was essential to provide raw materials and markets for the ailing Japanese economy, resettlement areas for Japan’s burgeoning population, security against potential Soviet armed incursion in China, and opportunities for propagating the superior Japanese culture and values.

Like their German counterparts in Europe, but on a smaller scale, the Japanese leadership sought to construct an empire in Asia in order to make Japan economically self-sufficient and to give it the logistical base to enable it to fight a protracted war against its formidable and numerous enemies. The situation in China was critical even by late 1938. A prolonged and indecisive war of attrition was rapidly coming into sight, and the war was already proving to be an “alarmingly heavy drain on its military manpower and materiel”. Further continental expansion was seen as the most effective solution to Japan’s growing

89 Clayton James, op. cit., p. 705
90 Ibid.
logistical shortcomings. Under the banner of pan-Asian unity, the Japanese in 1941 conceived of a plan for a "Greater East Asia Co-Prosperity Sphere". This amounted to a scheme for an "integrated regional economy" in which the Koreans, Manchurians, and Chinese would participate under Japanese hegemony. The Japanese also laid claim to the "...vast resources of Southeast Asia in oil, rubber, bauxite, tin, and other strategic materials and foodstuffs." A so-called "Southern Resources Area" was thus demarcated over which the Japanese would seek to exercise control. However this was the area in which the British, Dutch, French and Americans held colonies or claimed commercial privilege.

In mid-1941, the occupation of the southern part of French Indo-China began the campaign to take the Southern Resources Area. Indo-China was a good place to start, for in Europe France had "fallen" to the invading German forces in 1940. In any event, three outcomes could be expected if Japan successfully struck south (that is, away from the Soviet Union):

First, it would make itself free from the economic pressure of the western countries, which had the temerity to threaten it with economic sanctions in an effort to control Japanese expansion. Second, by making deadly war on these powers, it would finally crush the hopes of Chungking and make it sue for peace. And lastly, out of the defeat of these western adversaries, it would build up a great Japanese empire overseas, which would be the principal monument of the war. It would not have to take account of the feeling of its allies in Europe.92

It is interesting to consider why Japan should not have been interested in the feelings of its European allies, in particular Germany. Though Japan joined the

91 Ibid., p. 706
Chungking, in Szechuan province, was Chiang Kai-Shek's emergency national capital. The 1941 invasion of French Indo-China began the Japanese advance into the "South Seas" (which encompassed French Indo-China, the Dutch East Indies, Malaya, and the mandated islands of the Pacific) which the navy had been urging since the 1930s. The navy's support for an advance into the" Southern Region" (another term for the "South Seas" or "Southern Resources Area") was understandable: it would "...bring Japan essential resources, especially oil; it would, of course, also require an expansion of the navy". Ronald Spector, Eagle Against the Sun: The American War with Japan, Penguin, Harmondsworth, 1987 [Free Press, MacMillan, 1984] p. 42
Axis Pact with Italy and Germany in 1940, relations with Germany, its great and powerful friend, stayed largely on an arms-length basis. The reasons for this go back to events that took place in 1938 and 1939. In July 1938, Japan attempted to force the Russians to withdraw from their positions on the Manchurian frontier. Choosing a position where the Korean, Soviet and Chinese frontiers met, the Japanese sought by force of arms to remove Soviet forces from the area (According to a 1886 treaty map of the area, the Soviet Union (Russia) was there by right.93) The Japanese were overwhelmed by Soviet “heavy formations” “in a prolonged pitched battle” and remained quiet for a few months.94 Then in August 1939, “...Japanese troops clashed with Soviet units in the Nomonhan region [the Russians called it Khalkhin-gol], a disputed border area in the southeastern corner of Manchuria.”95 Nomonhan was situated on the frontier of Outer Mongolia, and the Soviet Union had a defence treaty with Mongolia. The Soviets used “...superior artillery, armour, and mechanized forces to inflict crippling losses on Japan”. Indeed, the fighting lasted for over a month, and an entire Japanese division was “annihilated”.96

During the Nomonhan/Khalkhin-gol incident, the Russo-German Non-Aggression Pact had been concluded. This signalled to the Japanese that, despite their well publicised hopes, they could not rely on Germany to deal with the Soviet Union on their behalf. Co-ordinated planning and joint action were not thereafter to characterise the relations among the members of the Axis Pact. Nevertheless, in 1941, Japan itself concluded a non-aggression with the Soviet Union. According to Calvocoressi and Wint, this was “one of the sensational events of the war” for it meant that Japan was no longer concentrating its strategy on the defeat of its traditional, even “hereditary”, enemy, but would instead have to confront Britain and the United States. This was the “...great movement which determined the course of the war: the shift of mental concentration from a land campaign against Russia, with armies locked together to see which would prevail, to a sea strategy,

93 Calvocoressi and Wint, op. cit., p. 674
94 Ibid.
95 Spector, op. cit., p. 37
96 Ibid., and Calvocoressi and Wint, op. cit., p. 675
a joint operation of army and navy, which would have as its object the putting of western imperialism to its death, and which would be directed against the Anglo-Saxon powers not against Russia.”

According to Ronald Spector, the Imperial Army command did not learn anything from the defeat at Nomonhan but preferred to look instead to the “...the brilliant German victories in Poland during the same months, victories made possible by the very type of organization, methods, and material the Japanese army disdained.” He points out that prior to Nomonhan/Khalkhin-gol, and unlike the armies of any of the other great powers which had all been involved in the First World War, the Japanese army had not experienced war with an adversary armed with the weaponry of modern, industrialised warfare -- even though it had defeated numerically superior forces in the Sino-Japanese War of 1894-95 and the Russo-Japanese War of 1904-05. Japanese army doctrine put an emphasis on so-called “spiritual factors” -- “loyalty, faith in victory, aggressiveness and fighting spirit” -- and the importance of material factors was accordingly downplayed.

Moreover, the army had been trained and prepared for cold, desert warfare against the Soviet Union, Japan’s principal adversary. Engaging Soviet forces in Asiatic Russia “...meant fighting in severe cold in sparsely populated areas at the end of long supply lines.” The “large-scale logistical organizations” that made fighting this kind of warfare possible were not readily adaptable to “warfare on small tropical islands”, that is, precisely the sort warfare for which the Japanese army should have been training in preparation for the looming conflict with the United States. Furthermore, in this type of warfare, amphibious operations, for which the Japanese army also was not trained, would be of paramount importance.

As far as naval forces and operations were concerned, there were those in the Japanese Navy who, since the Washington Conference of 1921-22, had been warning of the “...Americans’ ability to construct vessels rapidly after the

97 Ibid., p. 684
98 Spector, op. cit., p. 37-38
99 Ibid., p. 37
100 Ibid., p. 38
outbreak of war, together with their vast industrial strength.” The “moderates” did not entirely reject the plans for a large fleet, but they did oppose “naval rivalry” with the United States on the grounds that the “...reckless navalism of the Fleet Faction [those opposed to the Washington Treaty limitations and to the restrictions proposed by Britain and the United States at the 1930 London Naval Conference] was likely to bring Japan into collision with stronger powers before [Japan] was fully ready for such a contest.” These “moderates” eventually lost out to “less subtle colleagues in the Naval General Staff and fleet.”

In the end, the Sino-Japanese War, together with the navy’s continuing desire for an advance to the south, set Japan on a collision course with England and the United States. The navy, which had invented the drive to the south and the crusade against Western imperialism as a device to secure more naval building, now found itself called upon to make good its own propaganda.

Japan and Germany shared a strategic outlook in which a war of continental conquest was the centrepiece. While for Japan this was qualified by the apostasy of its abandonment of preparations for war with the Soviet Union, its actions in China and South East Asia indicated that continental (and offshore) conquest remained high on the strategic agenda. Both had suffered inordinately during the depression of 1930s and it was hoped that conquest would compensate for their economic deficiencies with respect to Britain, but especially the United States. Conquest of territory would yield the resources, foodstuffs and labour that would make further conquest possible. As conquest proceeded, so would economic deficiencies accordingly be overcome.

101 Ibid., p. 40. For more on the provisions of the Washington Treaty, and the British and American proposals at London, see Ibid., pp. 39-41. Echoing the sentiments of David Reynolds, cited in note 75 above, John Keegan comments that, “[T]he Washington Naval Treaty...though hailed as inaugurating an idealistic new era of arms reduction by combatants sickened by war, was in fact a bipartisan device engineered by Britain and the United States to halt a naval race which had been gathering speed between themselves. It was imposed willy-nilly on the other signatories and accepted with bitter reluctance by Japan.” Keegan, op. cit., p. 159

102 Spector, op. cit., p. 43
Population pressures were invoked in both Germany and Japan as justification for their attempts to satisfy what might be called the "urge for Lebensraum", but whether these pressures were more imagined than real remains a moot point. At the end of the 1930s Japan was in the grip of "ultra-nationalism and militarism". There was more than a hint of racial supremacism in the concept of pan-Asianism, in which the Japanese appointed themselves leaders of the Asian peoples' fight to rid themselves of Western imperialism and influence. However, as Clayton James points out, in south east Asia "...as the occupation wore on, growing numbers of Indonesians, Malays, Thais, Burmese, Vietnamese and Filipinos were repelled by the oppressive, exploitative methods of the Japanese, who worked native laborers as brutally, seized raw materials and foodstuffs as rapaciously, and stifled dissent as ruthlessly as the worst of the white colonialists." There was also more than a hint of racism in the way that Japan was treated by its European allies, Germany in particular. The failure of Japan and Germany to plan for and co-ordinate joint actions can at least in part be put down to German racism. This is not the place to explore the roots, expressions and effects either of German or Japanese racism, but the ramifications of the lack of planning and co-ordination can certainly be highlighted.

Both the course and outcome of the Second World War were greatly shaped by: 1) Anglo-American co-operation and the ability of Britain, the United States and the Soviet Union to reach a more or less effective modus vivendi; and, 2) the inability of Germany and Japan to turn their ineffectual modus vivendi into a more co-operative strategic relationship. Conquest of the Soviet Union was the core of Nazi strategy and, had it been so for Japan as well the Second World War could have turned out rather differently. In stark contrast to the close co-operation of the leaders of Britain and the United States, there was little if any joint military planning by the leaders of the Axis powers:

103 Claydon James, op. cit., 714
Thus two of the early pivotal decisions of Axis strategy were made unilaterally and surprised the other pact members: the German invasion of the Soviet Union and the Japanese attack on Pearl Harbor. Coordinated strategic planning by Germany and Japan probably would have pointed up the mutual long-range assets in joint concentration on defeating the Soviet Union first, but neither government was willing to subordinate national interests in order to work toward common strategic objectives. The course of the war might have been quite different had Japan struck the Soviet Far East when Hitler's armies penetrated the European border of the USSR. The Axis failure to develop strategic planning at the alliance level, especially against the Soviets, was almost as important to the final outcome of World War II as the success of America and Britain in molding their coalition strategy.\textsuperscript{105}

2.6 Conclusion: prelude to containment

In light of the above and the outcome of the Second World War in Europe and Asia, it is interesting and instructive to consider Kennan's observation that the United States has long sought to prevent a single continental land power from dominating the entire Eurasian landmass. It is certainly true that the divisions within the Axis coalition, and Japan's turning away from war with the Soviet Union, played a large part in preventing Germany from realising its bloated ambition of dominating the landmass of Eurasia. With Japan thus having to concentrate on war with the United States and Britain, the Soviet Union did not have to commit troops to war in the Soviet Far East. This enabled the Soviet Union to dedicate all its human and material resources to war with Germany. Given its tardy preparations for war with the \textit{Wehrmacht}, the Soviet Union adopted a strategy that involved waiting for an opportunity to seize the initiative that had been lost to the Germans in June 1941.

This it was able to do in 1942-3 at Stalingrad and Kursk where it "...relied on surprise, manoeuvre, overwhelming quantitative superiority, and aimed at the absolute annihilation of the enemy." The Soviet employment of "armor for

\textsuperscript{105} Clayton James, \textit{op. cit.}, pp. 712-713.
operations in depth" was decisive in these battles.\(^{106}\) With the crushing of the German armies of occupation, the Soviet Union was eventually able to push their remnants back across its European frontier and into Germany. "The final stages of military operations", says George Kennan, "had enabled the Soviet Union to overcome the communications-poor barrier of the territory between the Baltic and Black seas which had historically separated Central and Western Europe from the Russian armies." As far as the ensuing Cold War conflict was concerned, the important point was that with the defeat of Germany American and Soviet forces in effect confronted each other "across a line through the middle of North Central Europe". This situation had been brought about not only by Germany's defeat, but also by the wartime devastation and military exhaustion suffered by the countries of Western Europe—which later forced them into economic and military dependency on the United States—"[A]nd the absence of any realistic agreement among the victors on a political future for the defeated Germany, or indeed for Central and Eastern Europe generally." Though it had been unforeseeable before the war, the line that divided Soviet and American forces from each other became the "central demarcation of a divided Europe".\(^{107}\) In overcoming the barrier that had for so long divided it from central and western Europe, the Soviet Union was also able to construct a ring of satellite states in Eastern Europe that its leaders hoped would protect it from future invasion from the west. Crucially, this extension of Soviet power into eastern and central Europe eventually involved the formal division of Germany into eastern and western halves.

On the other side of the Eurasian landmass, Soviet power had also been considerably extended. Kennan reckons that early on in his presidency, Franklin Roosevelt began to share with the leaders of the Soviet Union a realisation of the


"threat of Japanese penetration into the mainland of Asia." He goes on to state the obvious point that, "[T]his was shortly to be supplemented by similar feelings on his part with relation to Hitler’s obvious intention to win for Germany a dominant position on the European continent." It was not surprising, then, that at the Yalta Conference, held in the Crimea during February 1945, Roosevelt and his military advisers acceded to Stalin’s demands for "the Kuriles, South Sakhalin, Outer Mongolia, Dairen, Port Arthur, and Manchuria’s main railways." These concessions were made in return for Soviet intervention in the war against Japan. The deal rendered hollow the "territorial pledges" that had been made to Chiang Kai-Shek at Cairo in 1943.

Towards the end of 1944, America’s military commanders in the Pacific and Asia had come to the conclusion that they could not defeat Japan by aerial bombardment and naval blockade alone. Thus a massive invasion of the islands of Kyushu and Honshu would they thought be required, tentatively set to begin in November 1945 with a follow up in early 1946. A very high number of American casualties was predicted and therefore “a Soviet attack on Manchuria to prevent the sizeable Japanese forces there and in North China from reinforcing the defenders of the home islands” was thought to be necessary. By July 1945, when the atomic bomb was successfully tested and as evidence became available that Japan’s economy was on the verge of collapse, “…Pentagon planners began to reevaluate the need for Soviet assistance.” Nevertheless, preparations for an American invasion of the Japanese home islands and for Soviet intervention in the war against Japan had evidently gone too far to be cancelled. As Clayton James observes,

[T]he invasion plan was not rescinded, so some rationale for Soviet help remained. The rush of events overcame further reconsiderations; in quick order American subjected Japan to the horror of atomic warfare and Soviet forces rapidly moved into Manchuria, Outer Mongolia, northern Korea, the Kuriles, and South Sakhalin. In retrospect, it seems that once the Kyushu assault plan was

109 Clayton James, op. cit., p. 724
110 Ibid., pp. 723-724
drafted, military strategy essentially became dominant, with American national strategy bound inflexibly to it in its acceptance of Soviet intervention.\textsuperscript{111}

On 14 August 1945, Japan surrendered unconditionally and thus plans for an American invasion of the Japanese home islands became redundant. Nevertheless, as in Europe so in Asia, Soviet power had been extended considerably beyond its pre-war limits. Kennan’s insight that the United States had always opposed the domination by a single land power over the Eurasian landmass now applied to the Soviet Union. While it did not of course control the entirety of Eurasia, it was indisputably now the predominant power there. The defeat and subsequent division of Germany put to rest its plans for European, and Eurasian, hegemony. Similarly, Japan’s unconditional surrender ended the hopes of its leaders of building an empire in east and south east Asia under Japanese hegemony.

At the end of the Second World War, then, the Soviet Union sat astride Eurasia. There were a number of factors which accounted for Soviet territorial expansion. The Soviet army had repelled the German invasion and driven the German armies back into Germany, thus ending the Nazi occupation of Eastern Europe and extending Soviet influence as far west as north central Europe. The Japanese decision early in the War to advance south not north and therefore to confront the United States and Britain rather than Japan’s “hereditary” enemy was an extremely important factor that not only allowed the Soviet Union to concentrate on crushing its European enemy but removed the possibility of the Japanese conquest of Soviet territory in the Far East therefore obviating the need to wrest back control of that territory at war’s end. Finally, the Yalta Conference, where Roosevelt willingly acceded to Soviet demands for important territorial concessions in the Far East in return for Stalin’s agreement to invade Manchuria, played its own important part in allowing the Soviet Union to expand the territory under its control. As seen above, this expansion of the territory under Soviet control did not mean that it now dominated the entire land mass of Eurasia.

\textsuperscript{111} Ibid., p. 724
Nevertheless, this is where the Eurasian geopolitical theories (or flights of fancy) of Halford Mackinder and the like entered the scene. As will be seen in Chapter 3, the policy of containment (initially developed by Kennan) was predicated on the validity of Mackinder’s thesis that the power which ruled the heartland of Eurasia (Russia or the Soviet Union) held an inordinately powerful strategic position with respect to the entirety of Eurasia and to the rest of the world. (It should be recalled here that Kennan had insisted that the United States and Great Britain have always opposed the domination of Eurasia by a single continental land power.) While Mackinder’s own ideas (first published in 1904) underwent significant amendment over the first half of the Twentieth Century, his original thesis on the global strategic importance of the heartland power remained intact not only with respect to the policy of containment but also the strategy of nuclear deterrence. In both the policy and the strategy, the wartime expansion of the Soviet Union’s territory was used as evidence of its aggressive desire to dominate the entire Eurasian landmass. In the policy and strategy, Nicholas Spykman’s thesis on the global geopolitical importance of the rimland and offshore island powers of Eurasia (Kennan’s “peripheral powers”)—that the power which ruled the rimland also ruled Eurasia (and the world)—was adapted in such a way that the rimland and offshore island powers, namely Western Europe, in particular Germany, and Japan, became the first line of “Western” defence against Soviet expansionism. Thus, containment was at bottom a fusion of Mackinder’s and Spykman’s ideas that remained true to neither.

As seen in Chapter 1, the post War economic revitalisation of Western Europe and Japan was an absolutely fundamental factor in the hegemony of the United States. Indeed, America’s hegemony over the world-economy was dependent upon the economic revival of the core of capitalism and therefore on the peaceful coexistence of the states in the core. Likewise, the success of containment was conditional upon the economic and political recovery of the main Eurasian rimland and offshore island powers, and also on their pacification. Their integration into the alliance system with the United States--NATO in the case of Western Europe and Germany, and the Japanese-American mutual security pact
for Japan—both depended upon and ensured their peaceful coexistence. This is where nuclear deterrence played such an important role. The “Soviet threat” was inseparable from the threat of nuclear devastation—for the Soviet Union, the central and western European powers, and Japan—which was at the very centre of the strategy of nuclear deterrence.

The belief in the moral superiority of the United States, which was such an important part of the *doxa*, was central to the policy of containment. So was the belief that the Soviet Union was an inherently expansionist and aggressive power which was inherently opposed to all that the United States stood for. As will be seen in the following chapter, George Kennan, the architect of the policy of containment, was perhaps the most eloquent advocate of the view that the Soviet Union possessed these qualities and therefore had to be “contained”. He also clearly linked the need for containment of the Soviet Union with the need to reconstruct the economies and polities of the main Eurasian rimland and offshore island powers which were of course the core powers in the capitalist world-economy.
CHAPTER 3

CONTAINMENT OF THE SOVIET UNION:
THE GEOPOLITICAL AND IDEOLOGICAL UNDERPINNINGS
OF AMERICAN NUCLEAR STRATEGY

3.1 Preface

The belief in the moral superiority, perhaps supremacy, of the United States was a fundamental element in the doxa. As American power and wealth grew so did the belief become stronger and more deeply entrenched. The role which the United States played in the defeat of German nationalist imperialist in the First World War, and the part it took in achieving victory over the Third Reich and Japan in the Second reinforced this belief. At the end of the Second World War, when the United States was at the peak of its power, the belief was also at its most intense. But the belief was even further intensified by the growth in military power and territorial extent of the Soviet Union as a result of its role in the Second World War. American leadership over the capitalist world-economy and leadership of the struggle to meet "the Soviet threat" were complementary roles. The belief in the moral superiority of the United States was behind the conviction that it was uniquely qualified to play these roles. It was, therefore, of fundamental importance to the policy of containment -- and the strategy of nuclear deterrence.

One of the conditions for the United States being able to exercise hegemonic power and responsibility over the capitalist world-economy was that after the Second World War it have effective and viable economic and military policies for the rimland and offshore island powers of Eurasia. The core states in the capitalist world-economy were, with the exception of the United States, either continental European powers on the maritime fringes of the heartland of Eurasia or, as in the case of Britain and Japan, politically unified island groups immediately offshore from the Eurasian landmass. The Eurasian geopolitical situation that obtained at the end of the Second World saw the states in the capitalist core on either side of
Eurasia virtually tethered (or cobbled) together by the transcontinental expanse of the Soviet empire and threatened, if the predictions of American policy makers and strategic and war planners were to be believed, by the prospect that the Soviet Union would attempt to extend its power and influence and perhaps even its territorial extent at their expense.

Towards the end of the Second World War, the increasing likelihood of future conflict with the Soviet Union became a preoccupation with American policy makers. This preoccupation left America’s objectives in the war, particularly with respect to Germany and Japan, tainted with ambiguity and ambivalence. While there is no doubt that the United States did seek soundly to defeat Germany and Japan, nevertheless the preoccupation with the Soviet Union caused it to temper the peace which it enforced on the two Axis powers (as seen in Chapter 1, the rejection of the Morgenthau plan for the deindustrialisation and pastoralisation of Germany was but one example of this more moderate approach). Such moderation was motivated not only by strategic considerations but also by American plans for a relatively open, orderly and unified world-economy in which these two formerly, and potentially once again, core capitalist powers were to play a vital part. In other words, the reconstruction of the capitalist world-economy was dependent upon the reincarnation of German and Japanese economic power. Moreover, returning the countries in the core to health and vitality would render them far less susceptible than they otherwise would have been to destabilising and exploitative encroachment from the power which ruled the heartland of Eurasia, viz. the Soviet Union.

All of the above notwithstanding, one of the essential preconditions for the peaceful co-existence of the states in the capitalist core was the virtual destruction of German and Japanese *military* power and the assumption by the United States of the responsibility for their post War security. The intrusive, menacing and lingering threat of the Soviet Union greatly facilitated this arrangement for the United States. This arrangement would also ensure that any German and Japanese rearming in the future would be overseen by the United States in order to
enable them more effectively to confront "the Soviet threat" rather than to wage war against their capitalist peers. The reconstruction of the capitalist world-economy and the containment of Soviet power were, then, mutually reinforcing objectives that were both dependent upon American military superiority. Seen in this light, the policy of containment and strategy of nuclear deterrence were tailored to the hegemonic needs of the United States: a pacified capitalist core and an insecure, uncertain and unadventurous Soviet Union that nevertheless stood astride the landmass of Eurasia.

Even if after the Second World War the Soviet Union did not control the entirety of the landmass of Eurasia, it was nevertheless the predominant Eurasian land power. On its way to world hegemony, the United States had co-operated with the Soviet Union to defeat Germany and Japan thereby putting an end to their imperialist ambitions. After the war, the unity and orderliness of the capitalist world-economy that had been lost as British power declined and its hegemony waned were to be restored, but with the important qualification that the world-economy would be transformed and restructured according to the designs of the United States. As observed above, an absolutely crucial element in this transformation would be a restructuring of the economies and polities of Germany and Japan in order to reclaim the qualities that had given them their industrial strength and economic vitality and to discourage the militaristic forces and tendencies that had before the War been allowed to become dominant in each.

After the Second World War, the United States sought to control and contain militarism within the capitalist core by deflecting the militaristic forces and tendencies that remained either active or latent in the countries there toward confrontation with the Soviet Union and away from the inter-capitalist (or inter-imperialist) competition that had repeatedly threatened the very existence of the capitalist world-economy. The unequalled economic, political and military power of the United States was instrumental in bringing about the control, containment and redirection of militarism in the core of the world-economy. This power would also give the United States the ability to dictate the terms and conditions under
which the core capitalist powers, Germany and Japan in particular, were to be permitted to rearm. Thus, in agreeing to co-operate with the United States in implementing the policy of containment of the Soviet Union, the Western allies and Japan in effect accepted the need for containment of their own primary militaristic urges. (The formation of the North Atlantic Treaty Organisation in 1949 and the U.S.-Japan Security Pact of 1951 were obviously crucial in this regard).

The military dominance of the United States underpinned the policy of containment of the Soviet Union and that policy in turn made possible, indeed necessary, the containment by the United States of the powers in the capitalist core. While the core capitalist powers consented to their participation in the policy of containment, the policy's close links with the strategy of nuclear deterrence carried an implied threat and therefore an element of coercion: if the relations between them could not be pacified then containment would fail and nuclear devastation for them and the Soviet Union could well follow. It is perhaps conceivable that the United States would have been able to implement the policy of containment of the Soviet Union and the capitalist core without the backing of atomic weapons. Nevertheless, historically that strategy has always been associated with America's possession of the atomic bomb. The strategy of nuclear deterrence, then, can rightly be regarded as the military cornerstone of containment and the need to contain Soviet power the rationale for the adoption of a strategy of deterrence. While the strategy of nuclear deterrence, and its connections with the policy of containment, will be taken up and examined at length in the next chapter, the historical, geographical, and geopolitical sources of that policy will now be considered in more detail.

3.2 The ending of World War II, the United States and the Soviet Union: A geopolitical displacement

The ending of World War II was concomitant, in the words of George Kennan, with the emergence of a "major geopolitical displacement" in the Soviet-American relationship. The new geopolitical displacement was naturally a product of the
position of the Soviet and American armies with respect to each other at the end of the European and Asia-Pacific wars. In Chapter 2 it was seen that the Soviet empire had expanded into north central Europe, and that it had also been greatly extended on the eastern side of the land mass of Eurasia. As far as American policy makers and strategists were concerned, this situation represented an alarming imbalance of power over the expanse of the pivotal geopolitical region of the world, an imbalance which gravely threatened the Eurasian rimland and offshore island powers. They found this situation all the more difficult to accept because it had arisen out of the defeat of German Nazism and Japanese militarism and along with them their imperialist plans for Europe, Asia, and the interposing territory.

As Kennan points out, prior to World War II "...the respective military situations and interests of the two powers had not constituted a significant factor in their relations." In the period beginning with the Bolshevik Revolution and ending in the early 1940s, the Soviet Union had not constituted a threat to the United States in terms of naval power and the "...same thing applied, the other way around, when it came to land power." To be sure,

...by the end of the 1920s, the Soviet Union had acquired...a formidable land army (in the Russian tradition) -- an army that was already the greatest, numerically, in the world. But the two countries were so widely separated -- in the West by the Atlantic Ocean and the intervening powers of Europe, in the East by the Pacific Ocean plus China and Japan -- that there was no consciousness on either side of serious military rivalry.\(^2\)

At the end of the Second World War, all this was changed. Now, the United States and the Soviet Union were the only two "traditional great powers of the modern age" that had not been relegated to "secondary military status". More importantly, the continental and oceanic expanses that had before the War kept them at a safe

\(^1\) George F. Kennan, 'America's Unstable Soviet Policy' in Kennan, The Nuclear Delusion: Soviet-American Relations in the Atomic Age (expanded and updated ed.), Pantheon Books [a division of Random House], New York, 1983, p. 218; emphasis added

\(^2\) Ibid., pp. 218-219

and non-threatening distance from each other no longer intervened. Before the War, the United States “dealt with the Soviet Union primarily as a revolutionary political force” but now was forced to refashion its approach and “deal with it as a traditional military great power, suddenly and unexpectedly poised on the very edge of America’s own newly acquired sphere of political-military interest.” The Second World War had removed the “geographic interposition of other great powers” and had for the first time “...placed their respective military forces in close proximity to each other in the center of Europe and in the northern Pacific.” There was thus no space to cushion and dissipate the impact of the “serious political differences” that developed as the Second World War came to an end. Moreover, the demise of the benevolent dictatorship (rather than tyranny) of distance (brought about by the situation at War’s end on either side of the Eurasian continent) was accentuated by an accompanying technological triumph over distance. Here long-range (soon to be inter-continental) bombers, and the atomic bomb itself, had the greatest impact. This extremely important technological dimension of Soviet-American relations will be considered in the following chapter where the strategy of nuclear deterrence will be examined in considerable detail. The point to be made here is that the reduction in the distances separating the two powers had serious geopolitical and strategic consequences that would have a profound impact on the policy of containment. This will become clearer as the exposition of the policy of containment proceeds.

Like George Kennan, the prominent American journalist Walter Lippmann was influenced by, and in turn influenced, the growing importance of Eurasia in American geopolitical and strategic thought towards the end of the Second World War. (Given that he was not a policy maker, Lippmann’s influence was of course not as great as Kennan’s.) Writing in 1943, Lippmann observes that “...North America is more accessible to and from the British Isles, Western Europe, and Japan than it is accessible to and from South America, or China, or the South

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4 Kennan, ‘America’s Unstable Soviet Policy’ op. cit., p. 219. As will be seen below, Kennan certainly did not treat the Soviet Union as a “traditional military great power” in his influential writings that were behind the strategy of containment.

5 Kennan, ‘American Diplomacy and the Military’, op. cit., p. 170
As far as great powers are concerned, "...the nearest neighbours of the United States are Britain, Russia, and Japan", and "with the exception of Germany, [they are] the principal military powers of the modern world." In the First World War, says Lippmann, "...it was no longer possible for the United States to be neutral towards Germany when in 1917 she threatened, by conquering Britain, to become our nearest neighbour." When in the Second World War Germany again threatened to conquer Britain, and "become our nearest neighbour", neutrality once again "became impossible" for the United States. If the military power of Germany and Japan is eliminated, at the end of the war "...there will exist in the world only three great military states -- Britain, Russia, and the United States." It is these three powers, therefore, that will have the responsibility for preventing Germany and Japan from again becoming great powers. And, adds Lippmann, only by remaining allies for the purpose will Britain, Russia and the United States be able to prevent the military renaissance of Germany and Japan. Lippmann saw the Atlantic Ocean as being an "inland sea". The Ocean should not be looked on as the "frontier between Europe and America", rather it should be seen as the "...inland sea of a community of nations allied with one another by geography, history and vital necessity." The relations of Britain and the United States largely determine the "security of this community".

For Lippmann, it was more than a curiosity that, "[T]he enduring element in Russian-American relations is that in critical times each nation has always been 'for the other a potential friend in the rear of potential enemies'." Situated "on


7 *Ibid.*, p. 72


9 *Ibid.*, p. 86. Lippmann cites DeWitt Clinton Poole, 'Russia and the United States', *New Europe*, September 1941. One example that Lippmann uses to illustrate his contention that Russia and the United States have always been to each other "potential friends in the rear of potential enemies" comes from the American Civil War. He observes, "[T]In 1863, at the darkest moment of the Civil War, there occurred the Polish insurrection against Russia. Both Britain and France were considering giving support to the Confederacy in America and to the Polish rebellion. In spite of American ideological sympathy with the Polish national rebellion, Lincoln and Seward refused to intervene diplomatically against Russia. In spite of Russian antipathy to the American democracy, the Tsar's government stated...that the preservation of the United States was an imperative
opposite sides of the globe”, Russia and the United States “...have always been antagonistic in their political ideology, always suspicious that close contact would be subversive.” Nevertheless, antagonism and suspicion have never stood in the way of each opposing the “dismemberment” of the other, each wishing the other to be strong. Indeed, “[E]ach has regarded the other as a potential friend in the rear of its potential enemies.” However, as the defeat of Germany and Japan became imminent, their defeat no longer a matter of if but when, Lippmann began to worry about the future of Russian-American relations. The enduring element in their relations would vanish and Russia would then be the “...greatest power in the rear of our indispensable friends -- the British, Scandinavian, Dutch, Belgian, and Latin members of the Atlantic Community”. As for Asia, moreover, “...Russia will be our nearest neighbour across the Northern Pacific and by air over the Polar regions; Russia will be the nearest neighbour of China.” As the end of the War approached, Lippmann did not have to be unusually prescient to offer the following observation:

Thus the question in Europe is whether Russia will seek to extend her power westward into Europe in such a way that it threatens the security of the Atlantic states. The question in the Pacific is whether as nearest neighbours by land, sea, and air, the United States and Russia will move towards rivalry or towards a common ground of understanding. The two questions are inseparable because, as the Russian statesmen have so often insisted, peace is indivisible.

Lippmann did not want the United States to have to retain a “permanent military intervention” in Europe in order to maintain peace and order there after the War. Bearing in mind that it was only Russia that would be able to threaten European peace and order, “[A] [post War European] settlement which was such that it could be maintained only by aligning American, and therefore also British,

necessity for Russia, and backed up this declaration by dispatching a squadron of warships from its Baltic fleet to New York and from the Pacific squadron to San Francisco.” Ibid.

10 Ibid., pp. 87-88
11 Ibid., p. 89
12 Ibid.
military power against Russia in Europe would set the stage inexorably for a third World War in Europe and in Asia as well.\textsuperscript{13}

It is not so much Lippmann's predictions for the post War world that are of interest here. Rather, it is the way in which he views Russian-American relations that is of primary concern. The historical, geographical and geopolitical dimensions of their relations not only fascinated Lippmann, as the end of the War approached he also was deeply troubled by them. The elimination of German and Japanese power gave a new and unsettling significance to the geographical proximity of Russia to the United States. The westward expansion of the Soviet Union was worrying because the United States was culturally, historically, and, by dint of the "inland sea", geographically bound to the nations of western, central and northern Europe. And at War's end, the Soviet Union would be the only power able to disrupt the "settlement of European affairs". Great advances in aviation, the atomic bomb, and a cartographic revolution played their own part in shaping the widespread perception of a precipitate shrinkage of distance and the emergence of a new geopolitical and strategic outlook in the United States.\textsuperscript{14}

\textsuperscript{13} Ibid., p. 90
\textsuperscript{14} David Reynolds refers to a "veritable 'Copernican revolution' in cartography": "Conventional maps based on Mercator's projection had distorted distances and encouraged the idea of self-contained 'hemispheres'. A common depiction of the United States in prewar atlases centered on a 'Western Hemisphere' with apparently limitless ocean disappearing on either side. But wartime cartographers, notable (sic) Richmond Edes Harrison and their geopolitical collaborators promoted 'air-age globalism'. Their new azimuthal projections, centered on various parts of the world, demonstrated that distance had indeed been revolutionized by aviation and encouraged the idea of a unified international community." David Reynolds, 'Power and Superpower: The Impact of Two World Wars on America's International Role' in Warren F. Kimball (ed.), \textit{America Unbound, World War II and the Making of a Superpower}, St. Martin's Press, New York, 1992, p. 24. Daniel Yergin discusses the cartographic performance of Air Force General James Doolittle before congressional hearings in late 1945. In one appearance, Doolittle replaced the conventional Mercator projection with a polar projection. Yergin comments: "The polar projection did make the world suddenly look very different. Within easy flying distance, hovering over the United States, stretched the vast and ominous land mass of the Union of Soviet Socialist Republics. The conclusion drawn from this cartographical display was clear -- America's new frontier was 'an air frontier'. That, of course, called for a commitment to a larger air force. Doolittle was advocating a 'catch up' campaign. What was odd about this campaign was that there was no one to catch up with. The Air Force's private intelligence estimates left no question that the Russians were many years behind the Americans in air power." Daniel Yergin, \textit{Shattered Peace: The Origins of the Cold War and the National Security State}, Penguin, Harmondsworth, 1980, pp. 210-211. The comparative size and capabilities of the Soviet and American armed forces after the War, and the implications of the Americans' overestimations of Soviet military strength for the growth in size of the US Air Force and atomic arsenal in the late 1940s and early 1950s, are discussed in Chapter 4.
Containment and nuclear deterrence were both responses to these new technological and geopolitical developments. "Geopoliticians" like Mackinder and Spykman, geopolitically informed commentators such as Walter Lippmann, and the geopolitically articulate Kennan all played a role either directly or obliquely in giving a pronounced Eurasian emphasis to America's post War foreign and military policy. As will be seen below, Kennan was not only geopolitically articulate, he was also a very influential policy maker, for it was he who devised the policy of containment, a policy which owed much to the writings and ideas of the geopoliticians. However, towards the end of the 1940s Kennan's influence on the policy making circles in Washington began to wane. This was because he was deeply opposed to the increasing militarisation of containment—in other words, containment was being overshadowed by the strategy of nuclear deterrence. The story of Kennan's loss of influence will be told in the final section of this chapter. This story provides crucial insights into the strategy of deterrence, the subject of the following chapter.

3.3 The dawning of a Eurasian geopolitical consciousness in the United States

If Kennan is correct, then it was at the opening of the Twentieth Century that an awareness began to develop of the importance to America's security of the maintenance of a balance of power on the European continent and the prevention of a single hostile land power from dominating the entirety of Eurasia. Nevertheless, the geopolitical consciousness of American policy makers and strategists was not much stirred by this new found awareness until the Second World War. Lippmann attributes this failure, and the dire flaws in American policy that resulted, to the powerful influence which "isolationism" exerted on the minds of the leaders and people of the United States.

Like the historians and commentators cited in Chapter 2, Lippmann imagined that at the turn of the Century a radical change in America's place and role in the world was taking place. According to him, the "old order" of the foreign relations of the United States that "had persisted from 1823 [when the Monroe Doctrine
was proclaimed], was radically dislocated after 1900.” This “dislocation” was wrought by the war with Spain, the extension of the American empire into east Asia, and the corresponding expansion of American power across the Pacific. But, as if all this weren’t enough, “...in 1900 Germany, already a great land power, began to build a great navy, and soon thereafter Japan followed suit.” Thus, Germany began to challenge British naval predominance and the “new German imperialism” also “presented a growing challenge to the hemispheric position of the United States.”^ Lippmann is very damning of the failure of the leaders and people of the United States to adapt their foreign and military policies to these new realities:

For forty years after the old order of American foreign relations had ceased to exist, the American nation clung to the illusions which had sufficed under the old order. The adherence to this old and now obsolete policy is known as “isolationism”. The name is misleading. In reality our commitments had been greatly extended, whereas our power and that of Britain had relatively diminished. The correct name for the policy of keeping the commitments without enlarging our power and our alliances is not isolationism, but insolvency.16

Of course, in 1917, when the German High Command decided that “cutting the Allies’ transatlantic lifelines was the precondition of victory”, the United States briefly abandoned isolationism or “insolvency” and sent over one million soldiers to the Western Front.17 However, after the signing of the armistice in 1918, the United States withdrew its military presence from Europe and the size of the American army (though not the navy) was drastically cut. This obviously did not mean that the United States magically lost its commitments in the Pacific and east Asia, nor did it mean that the United States severed its economic and financial links with Europe. But in Lippmann’s view American foreign and military policies were again to be characterised by “insolvency”, particularly with respect to Europe and Japan.

15 Lippmann, op. cit., p. 43
16 Ibid., p. 44
17 Reynolds, ‘Power and Superpower’, op. cit., p. 15
Lippmann is at pains to disabuse his American readers of their naive and sentimental attachment to the “legend of isolationism”. As seen above, he claims that at the turn of the century this attachment had kept the United States from enlarging its power and extending its alliances. The attachment to “isolationism”, temporarily broken in 1917, was repaired after the First World War. According to Lippmann, the American people’s romance with isolationism was the product of a misreading of American history. Labelling the Monroe Doctrine a “concert by agreement” with Britain (as Monroe himself had done), Lippmann points out that it accorded with Jefferson’s conviction “that the defence of American interests in the Western Hemisphere was closely related to an alliance with British sea power.” This conviction even “…survived the war of 1812 with England”. In 1801, in his First Inaugural Address Jefferson had enjoined the United States “to seek ‘honest friendship with all nations, entangling alliances with none’”. But as Lippmann points out, when American interests in the Western Hemisphere were being threatened, as they were in 1823 by France, Austria and Russia, Jefferson displayed “no dogmatic prejudice against alliances”. The concert by agreement, endorsed not only by Jefferson and Monroe but also Madison, “…was so successful that later generations thought the beneficent results were due to the nature of things -- for example, to the width of the ocean”.20

The writings of the geopoliticians, especially of Halford Mackinder and Nicholas Spykman to be analysed below, were absolutely crucial to the emergence in the United States of a Eurasian geopolitical consciousness and the corresponding loss of legitimacy for isolationism after the War. Transoceanic expanses could no longer be relied on as the chief defences of the United States. As Quincy Wright remarks, at the end of the Second World War, even the isolationists could not “…wholly ignore the advice of hard-headed strategists who insist that the Western Hemisphere and the off-shore islands of western Europe and eastern Asia must be

19 Lippmann, op. cit., pp. 40 and 41
20 Ibid., p. 42
incorporated in any workable defense plan for the United States.” Wright notes that the strategists “...demand that the ‘rimlands’ of western Europe, the Mediterranean, and Southeast Asia, be included, as first bastions of defense against aggression from the Eurasian ‘heartland’”. But even this might not be enough to ensure the security of the United States: “Air and sea power based on ‘an American Gibraltar’ could not indefinitely withstand attack from the remaining five-sixths of the world’s population and resources if organised against it, and, if the off-shore islands and rimlands of the Eurasian continent are to be used as bases, land forces to defend them will be necessary.”

Wright was being somewhat hyperbolic in his attempt to jolt the isolationists out of their complacency. On this score, it should be pointed out that after the War American policy makers and strategists certainly did not think in terms of creating an “American Gibraltar” but rather the establishment of an alliance system, with the United States at its head, which formed the main Eurasian rimland and offshore island states into a defensive cordon around the periphery of the Soviet Union. Moreover, the policy makers and strategists did not fear the remaining five-sixths of the world’s population and their resources nearly as much as they feared the Soviet Union, and as the end of the 1940s approached they came to the conclusion that not only nuclear weapons and a large air force, but also sizeable ground forces, would be necessary to defend the rimlands. Nevertheless, Wright is correct to highlight the influence of the “hard-headed strategists”, for the policy of containment and the strategy of nuclear deterrence were both responses to the difficulties and problems raised by their theories and ideas.

According to Melvyn Leffler, “[T]he postwar concept of Eurasia developed out of the revival of geopolitical thinking in the United States, stimulated by Axis aggression and strategic decision-making.” Halford Mackinder’s writings played an important part in stimulating this revival and so did those of Nicholas

Spykman. John Lewis Gaddis observes that from about 1947 or so policy makers and strategists in Washington "...developed a line of reasoning reminiscent of Sir Halford Mackinder's geopolitics, with its assumption that none of the world's rimlands could be secure if the Eurasian 'Heartland' was under the domination of a single hostile power." Elsewhere, Gaddis cites Nicholas J. Spykman, Walter Lippmann and George Kennan in support of his contention that American policy was directed at maintaining a European balance of power. However, each of these authors was also concerned with a Eurasian balance of power. So was American policy.

Kennan and other American policy makers were greatly influenced by a Mackinderian line of reasoning. The earnestness with which they faced the task of

22 Melvyn Leffler, 'The American Conception of National Security and the Beginnings of the Cold War, 1945-48', American Historical Review, April 1984, note 30, p. 356. Other so-called "geopoliticians" who played a part in "modifying" and "widely disseminating" Mackinder's ideas were Robert Strausz-Hupe, The Struggle for Space and Power, New York, 1942 and Hans W. Weigert, Generals and Geographers: The Twilight of Geopolitics, New York, 1942. Leffler also mentions a study prepared in March 1945 by "several of the nation's most prominent civilian experts": Frederick S. Dunn, Edward M. Earle, William T.R. Fox, Grayson L. Kirk, David N. Rowe, Harold Sprout, and Arnold Wolfers, 'A Security Policy for Postwar America'. In this study, the authors argue that "the United States had to prevent any one power or coalition of powers from gaining control of Eurasia" and that America could not "...withstand attack by any power that had first subdued the whole of Europe and Eurasia." Cited in Leffler, note 30, p. 356. In their paper, Dunn et al also noted that "The day when the United States can take 'a free ride' in security is over" and referred to the new era in which the two dominant powers were United States and the Soviet Union as "the age of the Big Two". Cited in Fred Kaplan, The Wizards of Armageddon, Touchstone (Simon and Schuster), New York, 1984, p. 22. Like Leffler, Reynolds, op. cit., p. 24 also refers to the "influential works" of Spykman, Strausz-Hupe and Weigert. The "hard-headed strategists" mentioned by Quincy Wright in the above quote were in fact geopoliticians. Wright's list is rather different from either Leffler's or Reynold's. According to him, terms like "heartland" and "rimland" "...figured in the strategic ideas of geopoliticians like Sir Halford Mackinder, Karl Haushofer, and Nicholas Spykman." Wright, 'Law and International Stability', op. cit., note 13, p. 355. Haushofer was one of the leaders of a school of geopolitical thought whose ideas before the Second World War greatly influenced Nazi policy and strategy for Eastern Europe and the Soviet Union. For more on Haushofer and the German geopoliticians see, e.g., Derwent Whittlesey, 'Haushofer: the Geopoliticians' In Edward Mead Earle (ed.), Makers of Modern Strategy: Military Thought from Machiavelli to Hitler, Princeton University Press, Princeton, 1943 and 1971, pp. 388-411 and Geoffrey Parker, Western Geopolitical Thought in the Twentieth Century, Croom Helm, London and Sydney, 1985, Chapter 5 'German Geopolitik and its Antecedents', pp. 51-86 passim.


reconstructing the shattered economies of Germany, other Western European countries and Japan after the War is one indication of this. (This is a matter that will be taken up at more length below in the context of examining the role of the Marshall Plan in the broad strategy of containment.) Indeed, the whole policy of containment (and the strategy of deterrence) was predicated on the belief that a single hostile power, in this case the Soviet Union, was threatening the rimlands of Eurasia and that it should be prevented or deterred from undertaking further expansionary moves.

While there is a question over whether this line of reasoning owed as much to Nicholas Spykman as to Mackinder, in the exposition and analysis of their theories that follow it will be shown that the policy of containment and strategy of deterrence were built upon a selective appropriation, and a skewed conflation, of the ideas of both authors. American policy makers appeared to accept that the “rimland” of Eurasia was as geopolitically significant as Spykman had claimed. They also seemed to accept Spykman’s contention that the “heartland” of Eurasia was conterminous with the territory of the Soviet Union. However, they shared with Mackinder a belief that the power which ruled the heartland would ultimately rule the world. This was in contrast to Spykman’s view that the power which ruled the rimland was most likely to become ruler of the world. Germany was a rimland power, and with good reason Spykman seemed to fear Germany more than he did the Soviet Union. Until the Second World War, so had American policy makers and strategists. As seen above, the enlargement of the territorial extent of the Soviet Union during the War, combined with the urgency attached to the task of reviving and reconstructing the world-economy -- the core powers of which were situated on the rimland and offshore island groups of Eurasia -- had convinced American policy makers and strategists that the heartland power was now the gravest threat to global peace and prosperity.

In ‘The Geographical Pivot of History’, an article first published in 1904, Mackinder had introduced the geopolitical concepts of “pivot region” and “heartland”. In that article, he used the former concept much more frequently than
the latter. Mackinder employed “pivot region” “...to describe that area in the centre of Asia having inland or Arctic drainage.” Because the pivot region was inaccessible to maritime power, “...Mackinder saw it as being the key geopolitical area in the contemporary world.” In the 1904 paper, Mackinder asserts that, “[T]he oversetting of the balance of power in favour of the pivot state, resulting in its expansion over the marginal lands of Euro-Asia, would permit of the use of vast continental resources for fleet-building, and the empires of the world would then be in sight.” According to Mackinder, “[T]his might happen if Germany were to ally herself with Russia.”

In Democratic Ideals and Reality, first published in 1919 and reissued in 1942, Mackinder considered the geopolitical implications of the First World War and the deliberations at Versailles. In that book, he largely dispensed with “pivot region” and adopted instead the term “heartland”. While the “heartland” “was similar in significance to the Pivot” and covered a “very similar region to the latter” it had been enlarged considerably and now “significantly included the whole of the eastern part of Europe.” For Mackinder, the lessons of the First World War were clear: “Who rules East Europe commands the Heartland; Who rules the Heartland commands the World-Island:

25 Parker, Western Geopolitical Thought, op. cit, p. 188. This is by far the best available introduction to, and overview of, the development of Western geopolitical thought this century.


27 Halford J. Mackinder, Democratic Ideals and Reality, Holt, Rinehart and Winston, New York, 1942

28 Mackinder notes that “[T]he word Heartland occurs once in the 1904 paper, but incidentally and as a descriptive and not a technical term.” He goes on to observe that “[A]t the end of the First World War, my book, ‘Democratic Ideals and Reality’, was published in London and New York. Clearly the ‘pivot’ label, which had been appropriate for an academic thesis at the beginning of the century, was no longer adequate to the international situation as it emerged from that first great crisis of our world revolution: hence ‘Ideals’, ‘Realities’ and the ‘Heartland’. But the fact that, even when additional criteria were brought to bear, the thesis of 1904 still sufficed as the background for an estimate of the position fifteen years later, gave confidence that the formula sought had been found.” Sir Halford J. Mackinder, ‘The Round World and the Winning of the Peace’, Foreign Affairs, vol. 21, no. 4 (July 1943), pp. 596 and 597

29 Parker, op. cit., p. 186
commands the world.” In his 1943 paper, ‘The Round World and the Winning of the Peace’, Mackinder claims that the concept of Heartland “...is more valid and useful today than it was either twenty or forty years ago.” He had however changed the boundaries of Eurasia by excluding “Lenaland”, “that part of northern Siberia east of the Yenisei river”. Furthermore, for Mackinder the validity and usefulness of the Heartland now appeared to reside predominantly in the strength and breadth of its defensive position rather than as a platform from which the power that ruled Eurasia could launch its bid for world conquest. Mackinder writes,

[All things considered, the conclusion is unavoidable that if the Soviet Union emerges from this war as conqueror of Germany, she must rank as the greatest land Power on the globe. Moreover, she will be the Power in the strategically strongest defensive position. The Heartland is the greatest natural fortress on earth. For the first time in history it is manned by a garrison sufficient both in number and quality.]

Mackinder’s 1943 emphasis on the defensive strengths of the Heartland meant that his 1919 views on the region had to be revised. According to Gerard Chaliand and Jean-Pierre Rageau, “[I]n 1943, he [Mackinder] repudiated his 1919 theory (the state that controls the Heartland will dominate the World Island).” Saul Cohen also observes that in ‘The Round World and the Winning of the Peace’, Mackinder “...consigned to the ashes his famous 1919 dictum about the rule of the Heartland meaning command of World-island.” Says Cohen, the 1919 dictum might be rephrased “to state that who rules the Heartland commands Eastern Europe” but that this does not “...mean automatic command over Maritime Europe or other parts of the Rimland”.

30 Mackinder cited in Ibid., p. 22. The “World-Island” was the single landmass which included Europe, Asia and Africa.
32 Parker, op. cit., p. 187
After Mackinder, Nicholas Spykman was probably the most influential of all the geopoliticians, at least as far as American strategy is concerned.\textsuperscript{36} His analysis develops and modifies the ideas of Mackinder as they were expressed in each of the three works already examined. Spykman observes that in *Democratic Ideals and Reality* Mackinder re-emphasized the “conception of the inevitable historical opposition between Russian land power and British sea power.” In rejecting the Mackinderian thesis of a “simple land power-sea power opposition” Spykman adduces compelling evidence: “...in the three great world wars of the nineteenth and twentieth centuries, the Napoleonic Wars, the First World War, and the Second World War, the British and Russian empires have lined up together against an intervening rimland power as led by Napoleon, Wilhelm II, and Hitler.”\textsuperscript{37} For Spykman, the heartland “...is, in effect to be equated with the political extent of the Union of Soviet Socialist Republics.”\textsuperscript{38} It is not the case that, as Mackinder had suggested, the power which rules the heartland will ultimately rule the world. Rather, says Spykman, “[I]f there is to be a slogan for the power politics of the Old World, it must be ‘Who controls the rimland rules Eurasia; who rules Eurasia controls the destinies of the world.’”\textsuperscript{39} The term “rimland” refers to the “those areas lying around the maritime fringes of the Heartland” and includes “Europe, the Middle East, the Indian subcontinent and South-East Asia.” Spykman regarded these as being “...culturally, politically and economically the most significant parts of the world.”\textsuperscript{40}

In the First and Second World Wars, says Spykman, the main security concern for the United States was that a single power threatened to dominate the “rimland

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\textsuperscript{36} Spykman was a Dutch sociologist who moved to Yale by way of California. Kaplan claims that he was “at one time a Wilsonian idealist” but had been converted to a Realpolitik view of international relations by Arnold Wolfers. Kaplan, *op. cit.*, p. 20. Wolfers was one of the authors of ‘A Security Policy for Postwar America’, cited above.

\textsuperscript{37} Nicholas Spykman, ‘Heartland and Rimland’ from *The Geography of the Peace*, Harcourt, Brace & World, 1944 reprinted in Kasperon and Minghi, *The Structure of Political Geography*, *op. cit.*, p. 175

\textsuperscript{38} *Ibid.*, p. 176

\textsuperscript{39} *Ibid.*, p. 176. Leffler is aware of Spykman’s inversion of the importance that Mackiner had attached respectively to the Heartland and Rimland, but makes nothing of it. Leffler, ‘American Conception of National Security’, *op. cit.*, note 30, p. 356

\textsuperscript{40} Parker, *op. cit.*, p. 189
regions of the Eurasian land mass". According to Spykman, the Second World War also gave added emphasis to the global geopolitical importance of a European balance of power. He claims that in the 'Round World', Mackinder himself had come to appreciate just how important the rimland was and the "...necessity of British-Russian-United States collaboration to prevent the growth of German power in this area." Spykman, by inverting the relative importance which Mackinder in his earlier writings had accorded to the heartland and rimland, is able to assert that, "...it is the cooperation of British, Russian, and United States land and sea power that will control the European littoral and, thereby, the essential power relations of the world." In terms of Spykman’s analysis of Eurasian geopolitics, Great Britain and Japan -- the main offshore island powers -- are both important but for different reasons. As seen here, the importance of Great Britain resides in the collaborative role it plays in controlling the European littoral. As for Japan, its importance derives from its attempt to win complete control over the “Asiatic rimland” at the same time as Germany was seeking complete control over the “Atlantic littoral” -- and Eurasian heartland. It was noted in Chapter 2 that, while Great Britain and Japan shared a superficial geopolitical similarity, their situations diverged rather sharply. Britain was predominantly a maritime power, but Japan’s leaders had since the last third of the Nineteenth Century sought to make Japan the dominant power in east Asia. They thus fought a war of conquest on the Asian mainland to give them the control over the Asiatic littoral.

In the section that follows, America’s objectives and strategy in the Second World War will be examined. This will provide a better understanding of why Britain, Russia and the United States did not establish a co-operative arrangement for controlling the European littoral and why Britain and the United States were unable to collaborate with the Soviet Union in preventing the post War renaissance of German economic power. As seen above (and in Chapter 1), German (and Japanese) economic and political reconstruction were be an integral

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41 Spykman, op. cit., p. 176
42 Ibid., p. 177
part of America's Cold War strategy for dealing with the Soviet Union, and in the reconstruction and restructuring of the world-economy under its hegemony.

3.4 America's strategy in the Second World War and its implications for the post War policy of containment

As John Lewis Gaddis points out, the "central dilemma" that confronted the military strategists of the United States during the Second World War centred on the role that they expected and desired the Soviet Union to play in the war against the Axis powers. The defeat of Germany and Japan could not be achieved without Soviet co-operation yet, as seen in the previous chapter, this "...would mean a vast increase in Russian power in Europe and the Far East, a development which might well preclude realization of such vital postwar objectives as self-determination and the revival of multilateral trade."^3

The strength of the American commitment to self-determination, which supposedly derived from a traditional disliking for colonialism (a disliking full of inconsistencies and exceptions), can be seriously questioned. As Clayton James points out, "...despite its own revolutionary origins, the United States condoned and assisted in the restoration of the British, Dutch and French colonial regimes in Southeast Asia upon Japan's capitulation, primarily to get American supplies of the area's natural resources flowing again and to ensure Western European support against possible postwar expansionist moves by the Soviet Union."^4 As seen in Chapter 1, furthermore, while the United States supported the revival of multilateral (that is, intra-European) trade after the War, it remained relatively autarkic. American hegemony was not based upon a preeminence in world trade. Nevertheless, it is certainly true that after the War the United States did seek to

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construct an open and orderly world-economy under its own hegemony. All this notwithstanding, in 1941 the military chiefs of the United States and Great Britain had agreed that "...any war against the Axis Powers would be a ‘Europe-first’ undertaking, with the residual responsibility for Japan to fall primarily to the United States." There were at this time good reasons for the Euro-centrism of Allied strategy:

During 1942 to 1944 the Far Eastern war could not be fought in China, and since there was little military point to fighting in Southeast Asia as long as the United States could block the sea lanes to Japan, cutting off the mineral riches of the region, the Pacific War, as General Douglas MacArthur put it at the time, was "starved". Beyond the limits imposed by political and military necessity...was Washington’s belief that Europe would remain the locus of future world power, and that the political stakes there were greater by far.\(^{45}\)

Even though the Western Allies gave an early commitment to a Europe-first strategy, it was only in July 1944, with the launching of the Normandy invasion, that they delivered the long-awaited second front in Europe.\(^{46}\) The Normandy invasion "...for the time being, relieved Stalin’s doubts regarding the willingness of his allies to fight the Germans on a large scale." According to John Lewis Gaddis, this presented the United States and Great Britain with an opportunity to request that the Soviet Union open a second front in the Far East where, he notes, "...the United States and Great Britain had been fighting Japan without the help of


\(^{46}\) The British and Americans agreed on a Europe-first strategy, and there is little doubt that they co-ordinated their strategic planning far more successfully than their Axis counterparts, yet all was not sweetness and light. While the United States Navy gave priority to the Pacific War, "...the United States always committed the greater part of Army and Air Force resources to the European theater of war. Beyond this global priority, however, the British and American military and their political leaders agreed on little else; they hammered out the grand strategy of the war in Europe in a series of often bitter disputes that ultimately satisfied no one and made Anglo-American strategy a synthesis of grudging compromises." Kolko adds that, "[T]he American political and military leaders almost unanimously agreed that they did not wish to fight a war in the Mediterranean area, much less North Africa, but until 1944 the Mediterranean was their main theater of war. Ideally the United States hoped to marshal its resources for a vast cross-Channel invasion of Europe." *Ibid.*, pp. 20-21. For more on the intra-alliance dispute over the opening of a second front in Europe, see John Lewis Gaddis, *The United States and the Origins of the Cold War*, op. cit., pp. 69-73
the Soviet Union." Nevertheless, between June 1941 and June 1944, the burden of the war against Nazi Germany had been largely shouldered by the Soviet Union. When the Western allies commenced the Normandy invasion, "the Red Army was still confronting more than 250 German and satellite divisions along the thousand-mile eastern front" while in France and Italy the British and Americans "...faced less than 90 enemy divisions." As observed in Chapter 2, while the Soviet Union played by far the greatest part in the defeat of Nazi Germany, up until July 1945 American leaders believed that Soviet entry into the war against Japan would also be necessary. A Soviet invasion of Manchuria would they believed prevent the redeployment of Japanese troops stationed there to the main islands of Kyushu and Honshu which the Americans planned to invade. Moreover, remarks Gaddis, "...Chiang Kai-Shek's reluctance to fight, had dashed hopes of employing Chinese manpower in the struggle against Japan." Russian manpower would be for the Americans a more than acceptable substitute.

Delay in opening the second front in Europe, thus forcing the Soviet Union to bear the brunt of the war with Germany, largely explains as Kennan so eloquently puts its, the inability of the British and Americans "to get to Central Europe faster than the Russians did in 1945". The "indispensable help" that the Russians afforded in defeating Germany, then, led to the "unstable situation of Germany and Europe" at the end of the War. In the Far East, too, the situation was not entirely within the compass of American control.

The Americans firmly and rightly, says Kennan, "...refused to permit the Russians to have a part in the occupation of the defeated Japan." Kennan fails to mention that the Chinese and British were also not permitted by the Americans to play a part in the Japanese occupation. Kennan draws a parallel between the post War situation in Europe and Asia when he remarks that "...on the Korean peninsula we

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47 Gaddis, ibid, p. 77
48 Ibid., p. 79
49 Ibid., p. 80
50 George F. Kennan, 'Reflections on the Walgreen Lectures' in Kennan, American Diplomacy, op. cit., p. 160
ended up, as we did in the center of Europe, with the Soviet forces taking the Japanese surrender in the northern part of the peninsula, and we taking it in the south, but with no agreement as between the two powers about the future of that country.”

Of course, as was seen in the last chapter, the expansion of Soviet power in east Asia extended beyond the northern half of the Korean peninsula. Nevertheless, Kennan’s implicit point is a good one. In order to realise its post War goals in Europe and Asia, and given the expansion of Soviet power into central Europe and east Asia, the United States would have to rely on Germany and Japan, the two most important Eurasian rimland-offshore island powers. The devastation of the War in Europe extended to the “prewar structure of European politics and economics” which, by 1945, was in ruins and without significant “social backing”. European capitalism could only be saved with “external intervention” but, more importantly, the pervasive economic and political instability in central Europe “required the United States to aid the resuscitation of cooperative conservative elements of Europe”. In Europe and Asia, the United States had to prevent “a total collapse of the Old Order” for such a debacle could have allowed the Soviet Union to extend its power and influence there or even bring about the “complete transformation of whole nations”. It was for this reason, says Kolko, that the “...United States did not advance a truly permanent stern peace for Germany or Japan”. By the end of the war, at the very latest, American policy makers had come to believe that in order to contain Soviet power and to advance their own objectives in Europe and Asia it was imperative that Germany and Japan both be rehabilitated and reformed.

Thus in the long run, the objectives of the United States in the Second World War were increasingly pervaded by a deep ambiguity that derived from the expectation of future conflict with the Soviet Union and the realisation that it would be able to

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51 Ibid.
52 Kolko, The Politics of War, op. cit., p. 621
achieve its post War economic and strategic objectives only if Germany’s and Japan’s economic and political viability was assured. “And”, comments Kolko,

this deliberate ambiguity, which permeated all their [the America’s leaders’] wartime considerations of the future role of the defeated Axis, implied that it was not the total destruction of Axis power, but the advancement of American global interests that soon became the preeminent concern in American planning. In this sense World War II was a tragic error to the American government in that even before the war was over it understood that perhaps a less imperialist Germany and Japan would be preferable to the U.S.S.R. as allies in the future.53

The ambiguity in America’s War aims with respect to Germany and Japan established or revived an important geopolitical, strategic and ideological linkage between Europe and Asia that became a “fundamental pattern” in shaping the development of the policy of containment. The revolutions that took place in the period 1944-54 had a decidedly Eurasian “geopolitical orientation” (the Balkans 1944-48 and East Asia 1946-54).54 These revolutions “...were centred in the historically contested borderlands (especially in the Lower Danube Valley [Bulgaria, Romania, Yugoslavia, Albania] and Manchuria) where Russia since the Tsars had confronted and battled German and Japanese expansion -- indeed, all these revolutions germinated as national resistance movements against German and Japanese fascist occupation.”55

The Soviet Union did not always enthusiastically embrace and endorse these revolutions. As the Soviet Union’s geopolitical and strategic circumstances changed so did its view of such revolutions and national uprisings vary

53 Ibid.
54 Giovanni Arrighi broadens the historical perspective in pointing out that 1896-1948 was the “...period of the greatest successes of socialist revolution, the period when self-proclaimed revolutionary vanguards of the proletariat took control of the means of rule over almost half of Eurasia.” Giovanni Arrighi, ‘Marxist Century, American Century’ in Robin Blackburn (ed.), After the Fall: The Failure of Communism and the Future of Socialism, Verso, London and New York, 1991, p. 140
accordingly. Stalin at times sought an accommodation with the United States and the West when the immediate or short term security needs of the Soviet Union recommended it as a course of action.\textsuperscript{56} This strategic manoeuvre had been employed by Stalin since the 1930s. With uneven success, he had attempted to “trade away” the popular revolutions in Spain, Greece, Vietnam and China in pursuit of better relations with the United States and the West.\textsuperscript{57} But later, as the Cold War developed and intensified, strategic and geopolitical imperatives forced the USSR to change tack and selectively provide support including arms to indigenous nationalist and socialist forces.\textsuperscript{58}

\textsuperscript{56} The Russo-German Non-Aggression Pact of 1939 was obviously motivated by the same sorts of security concerns as were behind Stalin’s attempts to reach some sort of accommodation with the West.

\textsuperscript{57} With regard to Greece, in the their famous “percentages agreement” of October 1944, Churchill and Stalin had settled on a mutually acceptable division of influence in the Balkans. “Let us settle our affairs in the Balkans”, Churchill had proposed to Stalin, and the two had agreed to acknowledge ’90 per cent’ Soviet influence in Rumania in exchange for ’90 per cent’ British influence in Greece. Additionally, Soviet influence was defined as ’80 per cent’ in Bulgaria, ’80 per cent’ in Hungary, and ’50 per cent’ in Yugoslavia. Churchill had thus recognized varying degrees of Soviet predominance in three Balkan countries in exchange for a free hand in Greece and joint responsibility for Yugoslavia.” In December 1944, when British troops temporarily put down the uprising in Greece, Stalin offered the Greek communists no assistance. Gar Alperovitz, Atomic Diplomacy: Hiroshima and Potsdam. The Use of the Atomic Bomb and the American Confrontation with Soviet Power (expanded and updated ed.), Elisabeth Sifton Books, Penguin Books, New York and Harmondsworth, 1985, pp. 181 & 182. In the case of China, at Yalta in February 1945, Roosevelt accepted Stalin’s territorial demands “and undertook to secure Chiang Kai-shek’s approval of them. In return, Stalin promised to go to war against Japan within ‘two or three months’ after Germany’s defeat, and to conclude a pact of “friendship and alliance” with Chiang’s Nationalist government in China.” Gaddis, The United States and the Origins of the Cold War, op. cit., p. 78. Later in 1945, in a conversation with US Secretary of State James F. Byrnes, “Stalin (also) reaffirmed his tepid support for Chiang as unifier-to-be of China. China clearly remained an American client, which was the American goal.” Yergin, op. cit., p. 150. Comments Fred Halliday, “[T]he Origins of the Sino-Soviet dispute go back at least as early as the Stalin period: yet it was not the lukewarm Soviet support for the Chinese revolution after 1945, nor the difficulties between Mao and Stalin after 1949, which led to the breach. What appears to have caused the break, beyond historical and personal antagonisms, was Khrushchev’s desire in the late 1950s to alter China’s foreign policy in line with the accommodations which the USSR itself was seeking with Washington and the Soviet criticism, openly made to western listeners, of China’s economic policy at the time, in the Great Leap Forward. The Russians were particularly intent on denying China the ability to produce nuclear weapons.” Fred Halliday, The Making of the Second Cold War (2nd ed.), Verso, London, 1986, p. 160

\textsuperscript{58} John Lewis Gaddis observes that, “...the Soviet autocrat [Stalin] did remarkably little to advance the interests of the proletarian revolution in the Third World. His more animated successors showed no such inhibitions, though, and over the next few years the [Eisenhower] administration was to find its fears [of an expanding sphere of Soviet authority] confirmed, justifiably or not, in such diverse regions as Iran, Guatemala, Indochina, Egypt, Iraq, Lebanon, and Cuba.” John Lewis Gaddis, Strategies of Containment, op. cit., pp. 176-177
In contrast to the revolutions that took place in Yugoslavia, China, Vietnam and so on, the founding of communist states in the countries of central and north eastern Europe (including Poland, Czechoslovakia, and Hungary) immediately after World War II was made possible by the presence of the Soviet Army. By engineering the founding of these states, Stalin was able to erect a "protective glacis" on the western frontier of the Soviet Union. The fact of the matter was, however, that eastern Europe was generally far poorer and less economically and politically developed than western Europe. The "forcible sovietization" of eastern Europe by an "even poorer" USSR "...logically implied a corresponding US sphere of interest in the far richer Western half of the continent; more, it actually consolidated capitalism in the latter half by the spectre of authoritarian austerity it henceforward presented."

The pacification of the relations between the core capitalist states under the hegemony of the United States was an essential element in the consolidation of capitalism in western Europe. Without such a pacification—or, to put it another way, establishment of the conditions allowing for the "peaceful co-existence" of states in the capitalist core--a sphere of United States interest in western Europe and American hegemony over the capitalist world-economy would both have been little more than a pipe dream. The formal division of Germany into eastern and western halves, the provision of Marshall Aid by the United States to the former combatant nations of western Europe, and the creation of the North Atlantic Treaty Organisation were among the most important factors in the pacification and redevelopment of the core of the capitalist world-economy. American occupation of Japan after its unconditional surrender was also highly significant in this regard. The creation of the German Federal Republic (23 May 1949) and the victory of the communists led by Mao over the nationalists under Chiang Kai-Shek’s leadership were, according to Davis, the "...two events which totally undermined the Soviet effort to establish a durable accommodation with the United States." On the

59 Davis, op. cit., p. 48
60 Ibid., p. 49. Alfred Grosser comments, "[W]hen the North Atlantic Treaty and treaties between the three western occupying powers [in Germany] that would help launch the new Bundesrepublic...were signed in Washington on April 4 and 8, 1949, a twofold filiation became apparent: the Atlantic Pact and the Bonn government were the twin children of the Cold War, as it
other side, of course, was the successful Soviet atomic test of August 1949 (conducted somewhere in "Asiatic Russia", probably central Siberia) which did not so much signal the beginning of the nuclear arms race as indicate that the race had started at Hiroshima in August 1945 or perhaps even in the New Mexico desert during July of the same year. In any case, this event sharpened and alarmingly increased the danger of the inability of the United States and the Soviet Union to reach some sort of accommodation. Perhaps on the Soviet side there was now less perceived need for an accommodation, on the American certainly a hardened unwillingness to find one.

In the section that follows, the geopolitical and ideological factors that accounted for the inability and unwillingness of the United States to reach an accommodation with the Soviet Union after the Second World War will be identified and accounted for. These factors were therefore also highly influential on the process of development of the policy of containment and strategy of nuclear deterrence.

3.5 The ideological and geopolitical orientations of the policy of containment

Writing in 1977, Colin Gray remarks that “today as in 1944” “[T]he principal American political objective in world affairs...must be the containment of Soviet (Heartland) power well short of its achievement of hegemony over the Eurasian-

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were.” Alfred Grosser, The Western Alliance: European-American Relations Since 1945. Vintage [a division of Random House], New York, 1982, p. 82. The role of the Soviet blockade of Berlin and the winter 1948-49 American airlift to relieve Berlin in the creation of West Germany and the formation of NATO is discussed by Grosser on pp. 82-87. He remarks, “[O]vernight, as it were, Berlin, once a symbol of Prussia and the Hitler dictatorship, had become a symbol of freedom.” p. 83 The German Democratic Republic became an independent state on 7 October 1949. Creation of the German Federal Republic also dashed Stalin’s hopes for the “neutralization” of Germany. By 1955, when West Germany formally became a member of NATO, the Russians had “...withdrawn an offer Stalin had made in 1952 regarding the possibility of a unified but neutral German state.” Gaddis, Strategies of Containment, op. cit., p. 191.

African World-Island and the adjacent seas. The "compelling logic of geopolitics" should convince "any American capable of reading a map and drawing fairly elementary policy lessons from recent history" that no "single political will" should be allowed to control the heartland and rimlands on the World-Island. Behind the policy of containment are the three "core beliefs" of the "American Cold War consensus". The first of these is that only the United States is strong enough to be able to counterbalance "pressure from the Heartland". The second core belief is that, while several of the "Rimland allies" of the United States "might be politically odious", nevertheless it is certain that "any Socialist-Communist successor regimes would be no better, and would probably be worse." The final belief in the American Cold War consensus is that "Western defeat" anywhere will in the "medium term" inevitably "weaken resistance elsewhere". This, the domino theory, "amounts to little more than common sense" when it is not interpreted too mechanistically. Notwithstanding the compelling geopolitical logic of the policy of containment and the core beliefs of the doxa, the policy was of a considerably longer vintage than Gray acknowledges.

John Lewis Gaddis puts the policy into historical perspective and eloquently testifies to its longevity:

Containing the Soviet Union, together with the ambitious ideology it created, has been the most durable foreign policy priority of the United States in the twentieth century. Each presidential administration since Woodrow Wilson's has devoted itself in one way or another to this task, and during the Cold War containment became a national fixation. Historians, political scientists, and journalists have hardly neglected the subject either; entire forests have become victims of their successive attempts to explain on paper what containment "really meant".

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63 Ibid., p. 54
64 Ibid., p. 57
The "ambitious ideology" that was associated with the policy of containment was foreshadowed in the articulation and enunciation of America's objectives with respect to Germany in the First World War. Indeed, Gaddis credits Woodrow Wilson as being the figure who first gave American foreign policy a clear ideological orientation. After all, as he points out, "[I]t was Wilson who publicly defined the nation's objective in entering World War I as making the world 'safe for democracy'; it followed that Germany was the enemy because it was not democratic." In drawing a distinction between German government and German people, Wilson characterised the former "...as the embodiment of autocracy, as a regime with which one could have no dealings if one was to build the foundations for a lasting peace." The overthrow of the German government was, therefore, in Wilson's mind an essential condition that had to be met before a ceasefire was accepted.66

At the very beginning, America's relations with the Soviet Union were ideologically oriented in the same direction as its wartime dealings with Germany. This led Wilson and his supporters to concentrate on the autocratic and revolutionary nature of the Bolshevik regime and therefore to neglect the "...possibility that the United States might still share certain interests with it, notably the need to restrain Germany"--especially over the long term. (Walter Lippmann was one commentator who did acknowledge that restraining Germany was in the interests of both Russia and the United States.) Seen in this light, the ultimately abortive intervention of the United States and its First World War allies in Siberia and North Russia during the summer of 1918 was, as Gaddis observes, "one of the least productive political-military enterprises of the century."67 However, during the 1920s, the ideological orientation of American foreign policy became less virulent, or at least less visibly so.

66 John Lewis Gaddis, 'The American Foreign Policy Style in the Twentieth Century' in Ibid., p. 11
67 Ibid., p. 12
As Gaddis observes, "...American trade, investment, and -- at a critical moment in 1921-22 -- famine relief, had by that time [the mid-1920s] played a major role in the stabilizing the new Soviet government." While the Roosevelt Administration formally recognized the Soviet regime in 1933, and normalised diplomatic relations with it -- William Bullitt, the first American ambassador to the Soviet Union arrived in Moscow in December 1933 -- it was not until early in the Second World War that the Soviet Union and the United States collaborated to "restrain Germany". Roosevelt's endeavours to establish a lasting and workable wartime relationship with the Soviet Union are impressive in number and scope:

He took the consistent position that Germany posed the greater threat to world order than did the Soviet Union; he resisted pressures to break diplomatic relations with Moscow following the pact with Germany and the attack on Finland; he ran considerable risks both politically and constitutionally to get military assistance to Britain for use against the Germans; he went out of his way to share with Stalin intelligence pointing to the likelihood of a German attack; and when that attack finally came, in June, 1941, he immediately embraced the Russians as allies and within months made them eligible for Lend Lease, on the grounds that defense of the Soviet Union was now vital to the security of the United States.  

There is no doubt that each of these measures was quite significant in its own right and that together they eased to some extent the burden borne by the Soviet Union in standing virtually alone before the ferocious German onslaught. Nevertheless the problems associated with opening a second front in Europe, and of coalition war in general, that were mentioned above did not make for completely plain and harmonious sailing during the war. One notable incident in this regard was the justifiably bitter Soviet reaction to their exclusion by the Americans from negotiations with S.S. General Karl Wolff in March 1945 over a possible surrender of German forces in northern Italy. The prospect of negotiations with the Germans had first been raised by the American Office of Strategic Services (forerunner of the Central Intelligence Agency) in response to a proposal made by Wolff. The Soviet leadership understandably feared that this would present the Nazis with an opportunity to send three divisions then caught up in the stalemate

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68 Gaddis, 'Objectives of Containment', op. cit., p. 22
of northern Italy to the Russian front. While the surrender negotiations were unsuccessful, the incident would have a profound and lasting impact on Soviet-American relations.\(^{69}\) Despite the enormous implications of the episode itself, it was symptomatic of a much deeper malaise contaminating these relations.

Roosevelt’s approach to the Soviet Union since 1933, but especially during the war, had been representative of a style of American foreign policy that lost its currency with the assumption of Truman to the Presidency after Roosevelt’s death in April 1945. Perhaps the Wolff incident and the damaging fallout from it indicate that even had Roosevelt been able to stay on as President, there would have been little to cement the alliance relationship between the United States and the Soviet Union after the War. The resurfacing of deep and virulent ideological currents that pervaded American society (currents that made up the *doxa*), like anti-communism and anti-Sovietism, would probably have been a powerful influence on Roosevelt’s foreign policy in the post-War environment. These currents or tendencies would likely have aggravated already profound disagreements over, for instance, the future of Germany and Japan. In any event, while Roosevelt’s dealings with the Soviet Union before and during the War were not guided by “ideological zealotry”, his approach to Nazi Germany and Japan was more in keeping with Wilsonian ideas and values. The 1938 Munich Agreement, in which the British and French capitulated to Hitler thus allowing Germany to annex the Sudetenland, played a big part in the revival of the Wilsonian themes in American foreign policy. According to Gaddis, it was in the wake of the debacle at Munich that “...the realization of a connection between internal repression and external aggression burned itself deeply into the American mind”. The United States had not until Munich recognized Hitler for what he was and “...sought to atone for that error by assuming ideological zealotry on the part of all of its major adversaries for decades afterwards.” For the United States, the lesson of Munich was that “...aggression anywhere, left unrestricted, threatened the interests of stability everywhere.” In the Asia-Pacific, although the Japanese raid on Pearl Harbour was the immediate *casus belli*, ultimately America went to war.

with Japan because it "...equated the Japanese effort to dominate Asia with the Nazi attempt to dominate Europe".\textsuperscript{70}

The Munich and Pearl Harbour episodes notwithstanding, with respect to the Soviet Union Roosevelt, and Wilson and Truman represent divergent American foreign policy styles. The tenor of Roosevelt's dealings with the Soviet Union during the 1930s, and especially in the early stages of World War II, was markedly different from that which characterised Soviet-American relations during the Truman Administration. The two distinctive foreign policy styles are discussed by Daniel Yergin in terms of what he dubs the Riga and Yalta axioms. The Riga Axioms conceived of the Soviet Union "...as a world revolutionary state, denying the possibilities of coexistence, committed to unrelenting ideological warfare, powered by a messianic drive for world mastery." The Yalta axioms, on the other hand, "...downplayed the role of ideology and the foreign policy consequences of authoritarian domestic practices, and instead saw the Soviet Union behaving like a traditional Great Power within the international system, rather than trying to overthrow it."\textsuperscript{71} The two sets of axioms were really collections of sweeping generalisations about Soviet intentions and capabilities. Yet Yergin is surely correct in highlighting the influence that they had on policy makers and in his assertion that the Riga axioms became dominant towards the end of World War II and early on in the Cold War. During the interwar years the Americans operated a Soviet observation post from their mission in Riga the capital of Latvia. It was here "...that much of the research on the Soviet Union was conducted, personnel trained, and fundamental attitudes formed and nurtured; and it was from the mission that there issued constant warnings against the international menace."\textsuperscript{72} With the opening of the American embassy in 1933, a number of those who had trained in Riga moved to Moscow. As will be seen in the following section, George Kennan was undoubtedly the most prominent and influential figure in this group. In any event, when Germany invaded Russia in June 1941, the Riga axioms

\textsuperscript{70} Gaddis, 'American Foreign Policy Style in the 20th Century', op. cit., pp. 12 and 13. See Chapter 2 for more on the historical background to the US-Japan conflict.

\textsuperscript{71} Yergin, \textit{Shattered Peace}, op. cit., p. 11

\textsuperscript{72} \textit{Ibid.}, p. 19
became even more marginal to the actual process of policy making in Washington than they had been since Roosevelt was first elected president. They were not only to re-emerge after the War but to do so in a new and virulent form.

The Yalta axioms had their day at the conference held in February 1945 in the Crimean resort of the same name. The leaders of the three member states of the wartime Grand Alliance, the Soviet Union, the United States and Great Britain, attended the conference. The agreements struck at Yalta bore on several important issues. First, as was noted in the last chapter, the Soviet Union agreed to enter the war against Japan approximately three months after the war ended in Europe. Again as noted, Stalin's agreement came in return for a number of territorial concessions in the Far East. Plans for a new international organization to replace the League of Nations were also discussed at Yalta. It was agreed that each of the Great Powers (including Chiang Kai-Shek's China) would exercise a right of veto in the Security Council of the United Nations, as the replacement organization was to be known "...and the Western leaders agreed to support the admission of two or three constituent Soviet republics." The British were able to obtain from the United States and the Soviet Union "...assent to a modified Great Power role for France, including both a zone of occupation in Germany and participation in the German Control Commission."73

During the conference, Roosevelt won the agreement of Stalin and Churchill to the so-called "Declaration on Liberated Europe". According to Gar Alperovitz, the Declaration "...vaguely promised consultation on how to achieve free elections in Eastern Europe in the future, but (with the understanding of all parties) specifically eliminated any definition of precisely what was intended when, and contained no enforcement procedures."74 Roosevelt had proposed the Declaration in order to allay fears back home in the United States that the Soviet Union was carving out a sphere of interest in Eastern Europe.75 Convincing the Congress and the American people of the merits of the Declaration was all the more important

73 Ibid., pp. 62-63
74 Alperovitz, op. cit., p. 46
75 Gaddis, The United States and the Origins of the Cold War, op. cit., pp. 163-164
considering that he “had indeed made concessions to Stalin on Eastern Europe”\(^\text{76}\). Less than two weeks after the end of the Conference, the Soviet Union installed a “puppet government” in Rumania. Roosevelt was reluctant to invoke the declaration in this situation and, says, Gaddis, this “...doubtless indicated to Moscow that the President did not expect literal compliance with the terms of the agreement.”\(^\text{77}\)

But things did not go all the Soviet Union’s way. Kolko claims that, at Yalta, the Soviet Union failed to exploit fully its “tactical military superiority” in central and eastern Europe. This was clearly demonstrated in the manner in which the German question was handled at the conference. In spite of the fact that, to use Kennan’s words again, the Russians had got to central Europe faster than the British and Americans, the Soviet Union “did not exploit its advantage on the German question”. The Russians naturally favoured Germany’s dismemberment, but the United States and Britain were able to “postpone the details of agreement” on the future of Germany.\(^\text{78}\) With regard to Poland, “[T]he Allies did agree that the Russian-Polish border should be moved westward, to the Curzon Line, and, though not in very precise terms, further consented to compensation for Poland in the form of what had been German territory on its west.”\(^\text{79}\) There was implicit recognition at the conference that the Oder-Neisse Line should mark Poland’s western boundary. Stalin was also intent on receiving reparations for the massive slaughter and devastation that the German armies had perpetrated on Soviet territory. Churchill opposed any agreement on reparations, and Roosevelt characteristically attempted to hedge his bets. A total amount of $20 billion dollars for reparations was suggested by Roosevelt “as a basis for further discussions”. Half of this amount would be ear-marked for the Soviet Union on the understanding that “...reparations were to be in goods, production, and equipment, not in cash.”\(^\text{80}\)

\(^{76}\) Alperovitz, *op. cit.*, p. 46

\(^{77}\) Gaddis, *The United States and the Origins of the Cold War*, *op. cit.*, p. 164

\(^{78}\) Kolko, *The Politics of War*, *op. cit.*, p. 368

\(^{79}\) Yergin, *op. cit.*, p. 63

\(^{80}\) *Ibid.*, p. 65
The significance of Yalta is that Roosevelt, in rejecting or ignoring the Riga axioms, was able to come to terms with the Soviet Union on the basis of the realities of the balance of forces that then obtained in Europe. Criticism has been levelled at Roosevelt, and to a lesser extent Churchill, for selling out western interests and values to Stalin at Yalta. The vagueness and weakness of the Declaration on Liberated Europe are at the centre of these allegations. But such misguided accusations completely fail to take account of the situation in Europe in early 1945. Fred Halliday well understands the historical context and post-War implications of Yalta. Halliday observes that the post-War system of spheres of interest and alliance relationships is often referred to as the Yalta system in the belief that the agreements reached at the summit actually created the system. It is on the basis of the belief that the Yalta Conference did in fact divide Europe into Soviet and American spheres of influence that,

...those who reject the system have blamed the western powers for ‘agreeing to’ Soviet demands. In reality, however, the pattern of peacetime Europe had already been fixed two years earlier, and somewhat to the northeast, in the battles of Stalingrad and Kursk, when the Red Army finally broke Hitler’s forces. There was no ‘arguing with’ Stalingrad. Yalta merely recognized the balance of forces then existing in Europe...Critics of Yalta also tend to overlook the significance of Soviet military power in another respect: the defeat of Hitler not only guaranteed Soviet control of eastern Europe, but also enabled the re-establishment of democratic government in Western Europe...it needs recalling just what the strategic arithmetic of 1944-45 reflected -- 80 German divisions on the eastern front, with only 20 on the western to say nothing of the comparative casualty figures of the Soviet and Western armies. It is on this historic basis that both parts of modern Europe were built.81

As noted above and in Chapter 2, the balance of forces that obtained in Europe and in Asia between 1943 and 1945 and that was sanctioned at Yalta not only shaped the post-War world, it also established the Eurasian, and broadly global, scope within which the policy of containment and the strategy of nuclear

deterrence would have to operate. In a way paradoxically, but in another quite
understandably, the so-called Yalta system sounded the death knell for the
influence of the Yalta axioms on the formulation of US foreign policy and military
strategy. Henceforward, the Riga axioms would serve as an increasingly
influential and unquestionable set of guidelines by which America policy makers
would chart the course of their dealings with the Soviet Union. This marked a
return to the ideological orientation of US foreign policy that in Gaddis’ view had
been pioneered by Woodrow Wilson.

As Yergin had noted, the Riga axioms had interpreted the revolutionary origins of
the Soviet state as a grim premonition of the way in which the Soviet Union would
conduct itself on the world stage. In terms of what might be called the Riga
mindset, the accuracy of the premonition had been confirmed by subsequent
events. According to the Riga axioms, the Soviet leadership had actually been
engaged in a struggle for world domination since the Bolshevik seizure of power.
If these axioms were to be taken as useful guidelines for interpreting Soviet
behaviour, all Soviet words and actions, even those that seemed on face value to
be accommodating and conciliatory, were skillfully conceived to play their part in
ensuring the success of the ideological warfare relentlessly being waged by the
Soviet Union against its Western adversaries. For the Riga adherents, this was
what was so loathsome about the Yalta agreements. Thus, in contrast to the Yalta
axioms, the Riga generalisations conformed with the American tendency to
“confuse forms of government with the behavior of governments”. Even well into
the Cold War, the United States still “...officially took the view that adherence to
Marxism-Leninism not only made governments internally repressive but also --
through their presumed subservience to Moscow -- a threat to the global balance
of power.” As seen above, the American view of the relationship between the
Soviet Union and the People’s Republic of China long laboured under this
misapprehension. There was a distinct lack of evidence to support the view that
Marxist-Leninist regimes were always slavishly subservient to Moscow and
“[E]ven at the height of the Cold War, few Soviet specialists or intelligence
analysts accepted the view that communism was monolithic". As early as 1948, Tito's declaration of Yugoslav independence from Moscow confirmed that these specialists and analysts had been correct.

The Yalta axioms, then, were undermined by the ideological reorientation of American foreign and military policy that had been occasioned by the unwelcome balance of forces that existed in Europe (and Asia) in 1945. Now the Soviet Union and its fictional and non-fictional allies would bear the brunt of American ideological zealotry. The Wilsonian association between the form and behaviour of governments had been set in concrete at Munich and been greatly hardened during the Second World War. In the Cold War, it would turn out to be a heavy millstone around the neck of American policy makers and strategists, but one which they mostly proved to be unwilling or incapable of shrugging off. The post-War ideological orientation of American foreign and military policy was complemented by the geopolitical orientation of that policy. As had already been noted in this chapter and the last, American policy makers and strategists had long been very attentive to events taking place on the land mass of Eurasia. The United States intervened in the two great Euro-Asian wars of this century, the First and Second World Wars, in order to prevent powers whose interests were hostile to it from taking control of Eurasia. The rehabilitation and restructuring of the world-economy were also concerns of fundamental importance to the United States. The Eurasian rimland powers whose actions were potentially most damaging to the world-economy were Germany and Japan. With both of them defeated and compliant at the end of the Second World War, but the Soviet Union as a result sprawled across nearly the entire extent of Eurasia, the ideological and geopolitical orientations of American policy became more completely and firmly fused together than they had been in the entire course of the history of the United States. It was appropriate, then, that George Keenan, the person whose name is most often and closely associated with the policy of containment, himself embodied these ideological and geopolitical orientations.

—82 Gaddis, 'American Foreign Policy Style in the Twentieth Century', op. cit., p. 13
3.6 Kennan and containment

Lloyd Gardner observes that, “[I]n George Frost Kennan the Presbyterian elder wrestled with the Bismarckian geopolitician: that struggle produced the “X” article.”[^83] The “X” article, titled ‘The Sources of Soviet Conduct’ and published in the establishment journal *Foreign Affairs* in July 1947, articulated publicly for the first time the longstanding ideological and geopolitical impulses behind Kennan’s recommendation to American policy makers policy that they adopt forthwith a policy of containment of the Soviet Union. To these Presbyterian and Bismarckian influences on Kennan’s thinking, Daniel Yergin adds what he terms “Freudian concepts” that can perhaps more accurately be called vague and inapposite psychoanalytical notions. Kennan was representative of those American officials who “…believed that the Soviet outlook reflected a merger of Bolshevik doctrine and practice with Russian national character.” For them, it was therefore more appropriate to ask “‘how far Russia has changed Bolshevism’” than “‘how far Bolshevism has changed Russia’”.[^84]

Kennan voiced thoughts of this kind in a 1938 lecture which, says Yergin, is important “because it shows the origin of his postwar ‘Mr X’ article and the Freudian concepts that influenced it.” According to Kennan, the Russian personality, its fears and neuroses, had been shaped by a number of environmental and historical factors: “The natural environment, especially the Asiatic frontier (generating fear, concern for ‘face’, and a ‘vague feeling of universalism’); the Black Sea civilization; the Byzantine Church (with its adherence to dogma and its intolerance and intrigues); the backwardness of the country as compared to the West”. Thus Kennan was able to discern “...powerful continuities, both in internal and foreign affairs, of life under the Czars and under Stalin.”[^85] It should not be thought that Kennan’s 1938 search for the pre-Bolshevik sources of Soviet conduct was a Freudian-induced aberration or “slip”. In ‘The Soviet Union: The Reality’ (originally published in 1977) Kennan observes that,

[^85]: *Ibid.* The lecture from which Yergin quotes was delivered to the Foreign Service School in May 1938.
In the period of the Grand Duchy of Muscovy the intolerant religious orthodoxy on which, in part, the grand dukes based their claim to the legitimacy of their power had global implications. It is also true that in both periods of Tsarist history -- Muscovite and Petersburg -- the Russian state showed a persistent tendency to what might be called border expansion, extending its power time after time, to new areas contiguous to the existing frontiers.86

According to Kennan, because the "religious orthodoxy" of the Tsars was, like the "ideological orthodoxy" of the Soviet period, "remote from any possibility of realization" it was largely irrelevant "as a guide to action". However, the "tendency to border expansion" is more serious for it "affected both Muscovite and Petersburg statesmanship, and has indeed manifested itself in the Soviet period as well."87 In the Soviet period, Russian expansion into Western Europe and the "Scandinavian North" has been held in check by the NATO Alliance. The "serious responsibility" and "burden" of the Soviet Union's eastern European "satellite area" has played its own part in the containment of its westward expansion. As for the "Asiatic border", "...the stalemate in Korea (after 1952) and the anxious vigilance of the Chinese made further expansion impossible except at the risk of a major war." The situation faced by the Soviet Union early on in the Cold War did not "invite" or "justify" expansion into Afghanistan, and the high risks and likelihood of inordinately small benefits accruing to it from expanding into Iran precluded the Soviet Union from doing so.88

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86 George Kennan, "The Soviet Union: The Reality" in Kennan, The Nuclear Delusion, op. cit., p. 79
87 Ibid., pp. 79-80. In 1946, in pursuing a policy of "Patience and Firmness" with the Soviet Union (precursor of the more global Truman Doctrine of 1947) the Truman Administration had "...not only induced the Russians to withdraw troops from Iran and to give up demands for boundary concessions and base rights from Turkey, but in addition committed itself to support the government of Greece against an externally supplied communist insurgency and to make the presence of the Sixth Fleet in waters surrounding the latter two countries a permanent fixture of the postwar world." Gaddis, Strategies of Containment, op. cit., p. 22. The strategic importance of the Middle East, and the United States' eagerness to gain secure sources of oil there were behind the "Iranian crisis". Yergin, op. cit., pp. 179-184 discusses these aspects of America's policy in Iran and the eastern Mediterranean. In an April 1947 report of the Joint Strategic Survey Committee to the Joint Chiefs of Staff, written just after the Truman Doctrine (to be examined below) had been proclaimed, the authors state that after Western Europe, "[T]he area of secondary strategic importance to the United States in case of ideological warfare is the Middle East, not only because of the existence of great oil reserves and processing facilities in this area but also because it offers possibilities for direct contact with our ideological enemies. However, a program of aid to
Over a period spanning nearly forty years, Kennan had not markedly changed his views on the allegedly powerful continuities of the domestic and external life of Russia under the Tsars and under Soviet rule. In the “X article” these themes are also present, but so is much evidence of the ideological and geopolitical orientations of American foreign policy. On a personal level, the Presbyterian and Bismarckian (and Freudian) sides of Kennan’s character are also revealed in the article. However, given the purposes of this chapter, the seemingly incompatible elements that made up Kennan’s personality are of little concern here. Of much greater interest and importance is the manner in which Kennan wove geopolitics and ideology into a compelling argument for a policy of firm containment of the Soviet Union. Equally interesting and important, is the way in which his ideas were received and interpreted by American policy makers and strategists. This after all is all part of the story of how the Riga axioms became such dominant influences on those who had responsibility for the formulation and implementation of American foreign and military policy in the early Cold War.

The immediate background to the publication and dissemination of the “X article” is the February 1946 transmission to the State Department in Washington of Kennan’s so-called “Long Telegram”. The telegram was sent from the Moscow embassy of the United States where Kennan was chief of mission. He drafted and sent the telegram -- 8000 words in length -- in an attempt to explain the motivations and intentions behind Soviet behaviour to his colleagues in the State Department who were apparently then in some confusion about how effectively to deal with the Soviet Union. The telegram was also “...ostensibly in reply to the
Treasury Department's plea for detailed information on Moscow's refusal to join the International Monetary Fund and the World Bank.\(^90\)

In the telegram, Kennan, once again employing Freudian or psychoanalytical terminology, claims that “[A]t bottom of Kremlin's neurotic view of world affairs is traditional and instinctive Russian sense of insecurity”. This insecurity had its origins in the experience of a “peaceful agricultural people” who inhabited a “vast exposed plain” and therefore were vulnerable to attack by “fierce nomadic peoples” from neighbouring areas. These fundamental insecurities were aggravated by contact with the “more competent, more powerful, more highly organized societies” of the “economically advanced West”. The insecurities arising from Western contact were felt by Russia’s rulers more keenly than its people because, says Kennan, these rulers “...have invariably sensed that their rule was relatively archaic in form, fragile and artificial in its psychological foundation, unable to stand comparison or contact with political systems of Western countries.” Fear of contact with and penetration by the West has led Russian leaders to seek security “...only in patient but deadly struggle for total destruction of rival power, never in compacts and compromises with it.”\(^91\)

As seen above, Kennan saw no real difference between Russia under the tsars and Russia under Stalin. Therefore, his warning about the way in which Russian leaders attempted to allay their fears and insecurities was as valid and relevant in 1946 as it would have been in pre-Bolshevik Russia. Later on in the telegram, Kennan gravely warns that in dealing with the Soviet Union, the United States is confronted by “…a political force committed fanatically to the belief that with US there can be no permanent modus vivendi, that it is desirable and necessary that the internal harmony of our society be disrupted, our traditional way of life be destroyed, the international authority of our state be broken, if Soviet power is to

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\(^90\) Gardner, op. cit., p. 277

be secure.” In bringing this ideological orientation of his telegraphic tocsin into line with the geopolitical, Kennan observes that, “[T]his political force has complete power of disposition over energies of one of world’s greatest peoples and resources of world’s richest national territory, and is borne along by deep and powerful currents of Russian nationalism.” While Soviet power is “[i]mpervious to the logic of reason” it does understand and respond to the “logic of force”. Thus it is prepared to withdraw when and wherever it encounters “strong resistance”. Implicitly recommending a strategy of containment (and deterrence) of the Soviet Union, Kennan observes that “...if the adversary has sufficient force and makes clear his readiness to use it, he rarely has to do so.”

Yergin describes ‘The Long Telegram’ as the “most important work that Kennan himself ever wrote”. It was a “classic restatement of the Riga axioms” and the “...most important such statement of those attitudes ever made.” The “X article” was a “...retitled copy of a paper, ‘Psychological Background of Soviet Foreign Policy’, which Kennan had originally privately submitted to [Secretary of the Navy, soon to be first Secretary of Defense James] Forrestal on January 31, 1947.” Forrestal had read The Long Telegram’ with enthusiasm and avidly endorsed the thrust and conclusions of Kennan’s analysis of Soviet behaviour. That ‘Psychological Background’ paper found its way “virtually unchanged” into Foreign Affairs, appearing as ‘The Sources of Soviet Conduct’ authored by “Mr X”. The Foreign Affairs article, however, also continued the “line of argument of the Long Telegram” where Kennan had “...made the case that the United States was dealing not with a Great Power pursuing imperial powers, but principally with a messianic religion, an ideological force, for which co-existence was always a threat.”

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92 Ibid., p. 61
93 Yergin, op. cit., p. 168
94 Gardner, op. cit., p. 276. Kennan notes, “I...crossed out my own name in the signature of the article...replaced it with an ‘X’ to assure anonymity, sent it on to Mr [Hamilton Fish] Armstrong, and thought no more about it.” Kennan, cited in Gardner, Ibid. Armstrong was then editor of Foreign Affairs.
95 Yergin, op. cit., p. 323. The full bibliographical details of the “X article” are: “Mr X”, ‘The Sources of Soviet Conduct’, Foreign Affairs, XXV, No. 4 (July, 1947), pp. 566-82. Also reprinted in Kennan, American Diplomacy, op. cit., pp. 107-128
appeared in print, Kennan had been appointed to head the new Policy Planning Staff in Secretary George C. Marshall’s State Department thus putting him in the “front rank of Cold War policy-makers”.96

Many of the underlying themes of Kennan’s 1938 lecture to the Foreign Service School that had resurfaced in ‘The Long Telegram’ made yet another appearance in ‘The Sources of Soviet Conduct’. Kennan again runs the line that fear and insecurity breed fanaticism. For this reason he says, “Stalin, and those whom he led in the struggle for succession to Lenin’s position of leadership, were not the men to tolerate rival political forces in the sphere of power which they coveted.” “Any permanent sharing of power with Stalin and his cronies” was put out of contention by their “fierce” and “jealous” “brand of fanaticism” which was “unmodified by any of the Anglo-Saxon traditions of compromise”. The “Russian-Asiatic world” of their origins had left them with a legacy of “skepticism as to the possibilities of permanent and peaceful coexistence of rival forces.” Their fanatical ideology, sustained by the “powerful hands of Russian history and tradition” “taught them that the outside world was hostile and that it was their duty eventually to overthrow the political forces beyond their borders.”97

According to Kennan, if the Soviet government occasionally “sets its signature to documents” which suggest that the “aims of the capitalist world” are not necessarily imimical to the Soviet Union, “...this is to be regarded as a tactical maneuver permissible in dealing with the enemy (who is without honor) and should be taken in the spirit of caveat emptor.”98 This was for Kennan and other high-ranking foreign policy makers the very reason that the so-called Yalta axioms had to be jettisoned and the Riga axioms reinstated. Experience had shown that the agreements reached with Stalin at the Yalta conference, and by implication anywhere else, were in the end worthless because they were, from the Soviet point of view, merely tactical manoeuvres. The leadership of the Soviet Communist

96 Gardner, op. cit., p. 276

97 Kennan, ‘The Sources of Soviet Conduct’ in Kennan, American Diplomacy, op. cit., pp 110 & 111

98 Ibid., p. 115
Party, claims Kennan, regards itself as being omnipotent and infallible. For this reason, “[O]nce a given party line has been laid down on a given issue of current policy, the whole Soviet governmental machine, including the mechanism of diplomacy, moves inexorably along the prescribed path, like a persistent toy automobile wound up and headed in a given direction, stopping only when it meets unanswerable force.” Thus, by using the quaint imagery of a harmless toy car, Kennan tacitly introduces the notion of containment into his analysis. This is where analysis becomes recommendation, description almost subliminally moves on to prescription.

The Soviet automaton had to be controlled or contained and this in Kennan’s view could be done only by confronting it with “unanswerable force”. Later in the article, Kennan is much more explicit in the advice he proffers to American policy makers. As he says, in light of the analysis of Soviet power and conduct he has provided, “...it will be clearly seen that the Soviet pressure against the free institutions of the Western world is something that can be contained by the adroit and vigilant application of counter-force at a series of constantly shifting geographical and political points, corresponding to the shifts and maneuvers of Soviet policy, but which cannot be charmed or talked out of existence.” Earlier on in the article, Kennan had been even more direct: “...it is clear that the main element of any United States policy toward the Soviet Union must be that of a long-term, patient but firm and vigilant containment of Russian expansive tendencies.”

The proclamation of the Truman Doctrine on March 12, 1947 appeared to accord with the universalistic tone of Kennan’s “influential but as yet unpublished analysis of Soviet behavior”.

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99 Ibid, p. 117
100 Ibid., p. 120
101 Ibid., p. 119
102 Gaddis, “Truman Doctrine’, op. cit, p. 389. Neither Gaddis, Truman nor Kennan was prepared to admit that, in the words of Jerry Sanders, “[C]ontainment’s origin is rooted in the Truman Administration’s decision in 1947 to hold up a corrupt and oppressive dictatorship in Greece under the pretense of halting communist expansion.” Jerry W. Sanders, Peddlers of Crisis: The Committee on the Present Danger and the Containment of Communism, Pluto Press, London,
announced that "it must be the policy of the United States to support free peoples who are resisting attempted subjugation by armed minorities or outside pressures." The "sweeping rhetoric" in which Truman couched the American commitment to "resist communism wherever it appeared" papered over quite large "gaps between rhetoric and reality in U.S. foreign policy". The Truman Doctrine in reality extended the "Patience and Firmness" approach that the United States was already pursuing in its dealings with the Soviet Union. In addition to American actions in the eastern Mediterranean and Near East that were mentioned above, patience and firmness had been the guiding principle in a number of other negotiations and confrontations with the Soviet Union:

It ["Patience and Firmness"] showed up in the Far East, where Washington continued to resist any substantive role for the Russians in the occupation of Japan, while at the same time making clear its determination to prevent a Soviet takeover of all of Korea. It showed up in Germany, where the United States cut off reparations shipments from its zone and began moving toward consolidating it with those of the British and French, while at the same time offering the Russians a four-power treaty guaranteeing the disarmament of Germany for twenty-five years. It showed up in the Council of Foreign Ministers, where Byrnes firmly resisted Soviet bids to take over former Italian territories along the Mediterranean, while at the same time patiently pursuing negotiations on peace treaties for former German satellites.

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1983, p. 15. The only quibble with Sanders worth noting is that the United States had begun holding up oppressive dictatorships in Greece well before proclamation of the Truman Doctrine and that the situation in Greece was simply the catalyst for the adoption of the policy. As seen above, containment of the Soviet Union in one form or another had been practised by the United States ever since the Bolshevik Revolution.

103 Presidential address to Congress, March 12, 1947 outlining the "Truman Doctrine" excerpted in Thomas G. Paterson (ed.), Major Problems in American Foreign Policy, Documents and Essays (vol. II): Since 1914 (2nd ed.), D.C. Heath & Co., Lexington Mass. & Toronto, 1984, p. 309. In the speech, Truman also claimed that, "[T]he Government of the United States has made frequent protests against coercion and intimidation, in violation of the Yalta agreement, in Poland, Rumania, and Bulgaria. I must also state that in a number of other countries there have been similar developments." Ibid., p. 308. Of the Truman Doctrine, V.G. Kiernan observes that "[N]o nation was to be allowed to quit the capitalist -- or feudal -- camp, whether it wanted to or not. (Marxism was to follow suit with a similar ban, though it was not invariably enforced.) America had fought its own civil war to prevent any member states from going their own way, and the memory had a tenacious hold; the same principle was now to be enlarged to global dimensions." V.G. Kiernan, America: The New Imperialism from White Settlement to World Hegemony, Zed Press, London, 1980, p. 212

104 Gaddis, "Truman Doctrine", op. cit., p. 386

105 Gaddis, Strategies of Containment, op. cit., p. 22
Elsewhere, Gaddis observes that another manifestation of the policy of "Patience and Firmness" was the Truman Administration's "refusal to compromise on the Baruch Plan" for international control of atomic weapons. As Gregg Herken points out, "[T]he creators of the Baruch plan guaranteed that international control would be entirely on American terms -- or not at all." The plan "...did not differ in substance from an ultimatum the United States might have given Russia to forswear nuclear weapons or be destroyed." This illustrates the validity of Gaddis' assertion that, in adopting a policy that ostensibly called for both patience and firmness, the United States had actually been more inclined to emphasize the latter than the former.

The Truman Doctrine was, then, in many respects a continuation and extension of "Patience and Firmness", not a departure from it. Proclamation of the doctrine was precipitated by a "crisis caused by the British withdrawal of aid to Greece and Turkey early in 1947". According to Gaddis, the Truman Doctrine was a product of the "...belief, then almost a half-century old, that American security depended upon maintenance of a European balance of power." Indeed, says Gaddis, "[F]or the United States, in the twentieth century, the most important requirement for a congenial international environment has been that Europe not fall under the domination of a single, hostile state." In an article written in 1958, Robert Strausz-Hupe, one of the geopoliticians cited above, comments that "American foreign policy, from the late 1940s onward, was presumably designed to counter the Stalinist policy in Europe". Containment, even though it was "cast in a global
mold”, was a “bland doctrine” the “principal objective” of which was to contain "...what it conceived to be the main thrust of Soviet expansionism directed at central and western Europe.” Containment’s “principal tools”, says Strauss-Hupe, were the Marshall Plan and the Atlantic Alliance.111 The Marshall Plan, and Kennan’s reasons for recommending its implementation, will now be analysed in order to highlight its geopolitical aspects.

Insofar as the implementation of the Truman Doctrine was concerned, so-called “special appropriations” were needed to put it into effect, and “[I]t was this need for congressional sanction for policy already in effect which caused the Administration to state its intentions -- or overstate them -- in universal terms.”112 In keeping with the recurring Freudian themes in Kennan’s analysis of the motivations and intentions of Soviet power holders, he employed psychological terms in considering the problem of how the Soviet Union could be most effectively contained. A restoration of Western European and Japanese “self-confidence” would be the most appropriate measure that could be taken to counter the ideological warfare waged by the Soviet Union. This would “avoid a direct confrontation with Soviet power” while at the same time lessening the vulnerability of “neighbouring states” to Soviet advances.113 For Kennan, self-confidence would return to the Western European and Japanese peoples only if their economic circumstances were improved. The United States had to accept the responsibility for initiating this improvement. In 1947 Kennan had recommended the announcement by the United States “...of a long-term program of American economic assistance” to restore European self-confidence. But such a programme would be effective, in the view of Kennan, only if it treated Western Europe as a unit and “allowed considerable responsibility for planning and implementation.” There were two primary reasons for Kennan insisting on a single, unified approach to the countries of Western Europe. The first was that “...together the states of that

113 Gaddis, ‘The Strategy of Containment’ in Etzold and Gaddis, Containment, op. cit., p. 30
region could better withstand Soviet pressure than if they acted separately” and the second was that “it was an indirect means of reintegrating Germany into European society.” By directing aid to Western Europe as a whole, “...then the British, French, and American zones of occupation in Germany could be included as well.”

The European Recovery Program (or, “Marshall Plan”), was initiated in 1948. According to Gaddis, Kennan’s advocacy of the Marshall Plan reflected his belief that the “most effective instrument the United States had for projecting influence in the world was its economic power”. Initially, therefore, the Marshall Plan “...did not call for a permanent United States military commitment to Europe.”

But this is at best tells only half the story, which misses the importance of the linkage between containment and deterrence. As seen in Chapter 1, Jerry Sanders cogently argued that the policy of containment depended upon the “indissoluble projection” of economic, political (and ideological), and military power. The Marshall Plan, the universalistic language in which the Truman Doctrine was couched, and the use of the atomic bomb against Japan (and the implied threat this represented in the context of the Cold War) were mutually reinforcing supports or pillars of the policy of containment and therefore all played an indispensable part in buttressing and giving effect to that policy.

Kennan’s recommendations for American policy toward Japan followed the same logic as his proposals for Western Europe. Here too, though Gaddis does not mention it, deterrence was a mainstay of containment. For Japan, Kennan “...proposed a reorientation of occupation policy away from the punitive approach of the early postwar period toward measures designed to encourage that country’s emergence as an independent center of power in the western Pacific.” In the Far East, Kennan, like General Macarthur, favoured the “defense of islands”, in particular Okinawa and the Philippines, in preference to committing American forces to the Asian mainland.

114 Gaddis, Strategies of Containment, op. cit., pp. 37 and 38
115 Gaddis, 'Strategy of Containment', op. cit., p. 31
116 Ibid., pp. 30 and 31
permanent American military commitment to Japan but disregarded the importance of the strategy of nuclear deterrence in buttressing the policy of containment.

As noted in Chapter 1, there were other more prosaic, less ideological and psychological, reasons behind the implementation of the European Recovery Program than those proffered by Kennan, and these were very much in accord with the circumstances surrounding America’s hegemonic position in the capitalist world-economy. One of the main objectives of the Marshall Plan was to correct the European-American trade imbalance that prevented the Europeans from earning sufficient dollars to buy American goods. The Marshall Plan also sought closer economic and political integration of the Western European countries and the quickening of the pace of their integration. Pacification and reconstruction of the capitalist core were heavily dependent upon Western European economic and political integration, the integration of Western Europe and the United States (and the political and economic integration of Japan and the United States).

If Kennan regarded the policy of containment as being a response to the ideological warfare he believed the Soviet Union was waging, then he was not above advocating that the United States play the same game itself. He believed that Russian influence could be reduced “...by exploiting actual and potential splits between the Soviet leadership and the international communist movement.” Offering Marshall Plan aid to the Soviet Union and the countries of Eastern Europe formed part of this strategy. The aid was offered, “...not with any expectation that the Russians would accept it, or allow their neighbors to, but in the hope that a Soviet rejection would strain Moscow’s relations with its satellites.”17 The Marshall Plan, the reaction of the United States to the Tito-Stalin split, “and its attempts, in 1949 and early 1950, to encourage dissension between the Soviet Union and the newly victorious Chinese Communists” can all be regarded as attempts to implement that part of the strategy of containment that “...involved aligning the United States with the forces of nationalism to resist

17 Ibid, p. 32
Soviet expansionism." With respect to Eastern Europe and China, these attempts were undermined by the persistent tendency of US policy makers to regard international communism as a monolithic force under the direction of Moscow. As seen above, at the end of the Cold War even Gaddis had to concede this point. The tendency to regard the Soviet Union as the unquestioned leader of a monolithic bloc was aggravated as Cold War tensions intensified—at home as abroad.

For Kennan, "[Industrial capacity, together with the access to the raw materials necessary to sustain it, was the key to power in the world."

On the basis of this criterion of power, it was possible to differentiate between those areas of vital concern to the United States and those that were not so important. Thus, notwithstanding the "sweeping rhetoric" used by Kennan in 'The Sources of Soviet Conduct' (and also by Truman in proclaiming the Truman Doctrine), Kennan did acknowledge that "...not all parts of the world were equally vital to American security." In a 1948 lecture to students at the National War College, Kennan observed that from the "standpoint of national security" there were "only five centers of industrial and military power in the world which are important to us." Besides the United States, these centres of power were Great Britain, Germany and central Europe, Japan and the Soviet Union. This was an important adaptation of Spykman's emphasis on the rimlands of Eurasia, that also preserved Mackinder's early insistence on the geopolitical and strategic importance of the power that controlled the Heartland. Noting in his Memoirs that "only one of these [centres of power] was under communist control", Kennan asserted that the "main task of containment" was to prevent any of the others from going the same way.

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118 Ibid., p. 33
119 Ibid., p. 27
120 Ibid.
121 Kennan, cited in Gaddis, Strategies of Containment, op. cit., p. 30. In his Memoirs Kennan did not speak of Germany as such but rather of the "Rhine valley with adjacent industrial areas". Kennan, Memoirs 1925-1950 cited in Gaddis, 'Strategy of Containment', op. cit., p. 27
122 Kennan cited in Gaddis, 'Strategy of Containment', op. cit., p. 27
Kennan's identification of these "vital power centers" did come with a caveat. Vital they might be, but they did not represent the sum total of America's security concerns and interests. Remarks Gaddis,

...Kennan recognized the need for a secure sphere of influence in the Western hemisphere, as well as access to centers of industrial power, sources of raw materials, and defensive strongpoints elsewhere in the world. What he was saying was that of the varieties of power that existed on the international scene, industrial-military power was the most dangerous, and hence primary emphasis should be placed on keeping it under control.123

Of the five centres of industrial-military power that had been identified by Kennan, the Soviet Union was unique. This uniqueness was a product of the potent combination of its heartland location, its formidable industrial and military power, and the ideologically driven hostility of its leaders towards the other, rimland centres of power. Of the rimland centres of power, the countries of Western Europe and Japan were the most susceptible to Soviet encroachment. However, Kennan thought that the Soviet Union would be more likely to use psychological means than employ military force in attempting to achieve its objectives in these countries. He feared that the debilitating effects of the "dislocations of war and reconstruction" on the European and Japanese peoples might render them "...vulnerable, through sheer lack of self-confidence, to communist-led coups, or even communist victories in free elections." In Kennan's view, "[S]ince both European and Japanese communists were, at this time, reliable instruments of Soviet policy, such developments would have meant in effect the domination of Europe and much of Asia by a single hostile power".124

Many of these sentiments had appeared in a document written for Secretary of State George C. Marshall in 1947 when Kennan was director of the Department of

123 Gaddis, Strategies of Containment, op. cit., p. 31. Like the authors of the memorandum to the JCS cited above, Kennan regarded the Mediterranean and the Middle East as being at least of secondary importance to the United States. It is also noteworthy that of the five centres of power, one is a challenger (actual or would-be) to the hegemonic power and the world-economy it leads.

124 Gaddis, 'Strategy of Containment', op. cit., pp. 29 and 30
State’s Policy Planning Staff.125 In that document, Kennan admitted that the danger of war was being “vastly exaggerated in many quarters” and that the Soviet Union “...neither wants nor expects war with us in the foreseeable future”. Nevertheless, he remained firmly convinced that the “world situation” in 1947 was “...still dominated by the effort undertaken by the Russians in the post-hostilities period to extend their virtual domination over all, or as much as possible, of the Eurasian land mass.”126 In their efforts to dominate Eurasia, the Russians were seeking to take advantage of the “power vacuum” that had been left by the defeat of Germany and Japan and the “natural wave of radicalism” that had followed in the wake of the upheaval caused by the World War.127 Kennan notes that the United States had borne almost single handedly the “burden of the international effort to stop the Kremlin’s political advance” and warns that this had “...stretched our resources dangerously far in several respects.” The United States could not continue to carry this burden alone and therefore it was “urgently necessary” that “something of the balance of power in Europe and Asia be restored by strengthening local forces of independence and by getting them to assume part of our burden.”128

Kennan was representative of a school of geopolitical thought which became dominant in the United States during the Second World War. According to this school of thought, it was imperative that the foreign and military policies of the United States be dedicated primarily to maintaining a balance of power in Europe and Asia. As noted in Chapter 2 and above, Kennan argued that this had actually been an overriding concern of US and British policy throughout most of the Twentieth Century. Nevertheless, there can be little doubt that in the latter stages of World War II and in the immediate post War years America’s preoccupation

125 The immediate background to Kennan’s appointment as the first Director of the Policy Planning Staff in Marshall’s State Department is provided in Wilson D. Miscamble, George F. Kennan and the Making of American Foreign Policy, 1947-50, Princeton University Press, Princeton N.J., 1992, pp. 3-11. Miscamble also discusses Kennan’s appointment to the PPS and his influential role there against the wider background of Kennan’s long diplomatic career, pp. 11-40
127 Ibid., p. 91
128 Ibid., pp., 92-93
with the geopolitical situation on the Eurasian rimland and offshore island groups became more deeply ingrained than it had ever been before. It was not until the collapse of the Soviet Union in 1991 that American policy makers had any reason to abandon this idee fixe that had sustained them for the entire duration of the Cold War.

The Marshall Plan was part of the policy of containment that had come to emphasise the geopolitical, strategic and economic importance of the key centres of power on the Eurasian rimland-offshore islands. These powers not only constituted the core of the world-economy, they were also the bastions of defence against aggression and expansion from the Heartland. The containment of militarism in the capitalist core and containment of Soviet expansionism were mutually reinforcing objectives of the policy of containment—and strategy of nuclear deterrence. Both containment and deterrence, then, reflected and powerfully asserted America’s hegemonic position in the capitalist world-economy. Containment of the Soviet Union and the core capitalist powers were underpinned by America’s strategy of nuclear deterrence. In the following chapter, the technocratic, technological and bureaucratic impulses that propelled the strategy of deterrence will be considered in some detail. It will be seen that these impulses interacted with one another to produce a strategy that was dangerously escalatory and exterministic.

3.7 Kennan and the militarisation of containment

George Kennan has long denied any responsibility for the militarisation of containment, and regarded such militarisation as being the unfortunate result of a misinterpretation of his recommendation that the United States adopt and rapidly implement a policy of containment. Unfortunately for Kennan, the tendency to interpret containment in largely military terms was, if not initiated, then strongly reinforced by the sweeping rhetoric and constant reiteration of his recommendation, and the dire predictions of Soviet intentions and behaviour on which it was based.
In effect, Kennan interpreted the geopolitical displacement in the Soviet-American relationship that accompanied the end of the War in Europe and Asia as representing a grave threat to the security of the United States and its European and Asian allies. This interpretation of the geopolitical displacement was motivated by a deep, ideologically-based animosity toward the Soviet Union that Kennan shared with many of the other senior policy makers in Washington. The displacement, and in some respects the ideological interpretation of it, was a product of the end of the benevolent dictatorship of the distances that separated the United States and the Soviet Union on either side of the Eurasian land mass. The significance of this was magnified out of all proportion by the cartographic revolution that was referred to above and was in turn accentuated by the technological triumph over distance that was largely brought about by the expanding range and increasing speed of bombing aircraft, and the destructive power of the atomic bomb. Kennan’s rhetoric and predictions, the ideological hostility toward the Soviet Union they voiced, the geopolitical displacement and the way in which it was interpreted, and the new geographical and technological realities all had strategic consequences, the most important of which was the militarisation of containment.

As containment became more militarised so did the nuclear means of deterring Soviet aggression increasingly usurp the economic, diplomatic and psychological means of containing Soviet expansionism. While Kennan did regard this as a fundamental distortion of the policy of containment as initially conceived, he did very conditionally approve of deterrence. His inability to give categorical approval to nuclear deterrence was the result of the genuine and extremely well-founded misgivings he had about the moral implications of the strategy, its objectives and manner of implementation. Had he given full vent to these misgivings, his partial endorsement may well have turned to unconditional disapproval of the strategy of nuclear deterrence, for they touched on some of the most problematical aspects of the strategy.
For Kennan, one of the most significant and worrying of these aspects was the refusal of the United States to renounce first-use of nuclear weapons. This was so significant precisely because the refusal seemed to undermine the whole idea that the United States possessed nuclear weapons only to deter their use by the Soviet Union and other powers. As if this weren’t enough, Kennan believed that the strategic bombing campaigns conducted by the United States during World War II had set a dangerous precedent for its nuclear strategy. Both he thought were predicated on maximum destructiveness and wholesale slaughter of the enemy’s civilians in the pursuit of unconditional surrender. On both counts, Kennan revealed that he had seen and understood the realities of the military strategy of nuclear deterrence.

The analysis which follows of George Kennan’s role in the militarisation of containment will lead into an examination of his views on the strategy of nuclear deterrence. His critique provides a very good introduction to the more extensive study that follows in the next chapter of the elements of the mature doxa that helped to justify the United States’ adoption of the strategy. At every step, the military and strategic realities beneath these myths and illusions will be exposed. What will be of most concern in this regard are the inflated strategic intentions and objectives of the United States and its acquisition of an offensive military capability to match and even outstrip them. As the realities are exposed so will the strategy of nuclear deterrence be revealed in its true colours. The escalatory effect on the strategy of deterrence of the longstanding technocratic tendencies in American military strategy that were discussed in Chapter 1 will also be considered.

George Kennan has since the late 1940s sought to distance himself from what Jerry Sanders calls “containment militarism”. It is not entirely clear whether

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129 Sanders coined this term to describe the product of the mutation of the policy of containment as originally proposed by Kennan into what was in effect a military strategy. He regards NSC 68 as being particularly influential in this regard. This document, which was discussed in Chapter 1, will also be examined in the following chapter. Sanders not only largely ignores Kennan’s own contribution (intentional or unintentional) to the militarisation of containment, he does not give enough attention to the military dimension of containment in its formative years. See Sanders, op. cit., especially pp. 23-50.
Kennan has been claiming innocence or seeking absolution for the militarisation of containment. It is however beyond dispute that the rhetoric he employed particularly in 'The Long Telegram' and 'The Sources of Soviet Conduct' played an important part in pushing containment in this direction. For example, while his likening of the Soviet Union to a wind-up toy in 'The Sources of Soviet Conduct' was a seemingly innocuous analogy that reduced the Soviet state to the scale of a child's plaything, it was used by Kennan as a sort of rhetorical feint to provide cover for the main thrust of his argument. As seen above, Kennan's prime objective was to convince American policy makers to adopt a policy of firm and vigilant containment of the Soviet Union. Kennan argued that the only way to block the Soviet Union's "expansive tendencies" was to confront it with "unanswerable force". The reduction of the scale of the Soviet Union exaggerated the viability and chances of success of the proposed policy. Moreover, the rhetoric employed by Kennan reflected and reinforced the geopolitical and ideological elements of the doxa, elements that were already clearly evident in American foreign policy and military strategy.

It was argued above that an implied nuclear threat had underpinned the policy of containment from the time of its inception. However, in the early stages the nuclear threat was overshadowed by the more visible economic and diplomatic initiatives associated with the policy. Of these initiatives, the Truman Doctrine and the Marshall Plan are the most noteworthy. By the late 1940s, the militarisation of containment was rapidly gathering momentum under the impact of events like the Berlin blockade, the successful Soviet atomic test, and the Communist victory in China. Nevertheless, this was a shift in emphasis, not a wild or erratic change in direction. Not only had containment always depended on a nuclear threat, but the technological, institutional and administrative apparatus of nuclear deterrence was firmly in place and already well developed. Kennan could not disclaim all responsibility for this shift in emphasis, no matter how much he regretted it, for he had in his published and unpublished works helped to establish its preconditions.
However, in 'Reflections on the Walgreen Lectures' Kennan forswears *any* culpability for the militarisation of containment. Claiming that he had been "bold" in putting forward the "concept" of containment in 1947, Kennan asserts that it had in fact been addressed to the "danger of the political expansion of Stalinist communism". He had been especially worried by the "...danger that local communists, inspired and controlled by Moscow, might acquire dominant positions in the great defeated industrial countries of Germany and Japan." While Kennan claims he did not believe "that there was the slightest danger of a Soviet military attack against the major western powers or Japan"--a belief borne out by the historical record, he says--in 1949 unaccountably "...something had happened in Washington that was to have a profound effect on all our postwar policies." For whatever reason, in 1949 a large number of people "in the Pentagon, the White House and even the Department of State" apparently came to the "...conclusion that there was a real danger of the Soviets unleashing, in the fairly near future, what would have been World War Three."\(^\text{130}\)

There is little point here in casting doubt on Kennan's claim that all along he regarded the Soviet threat as being primarily a political and psychological one. But something more can be said of the tone of 'The Long Telegram' and the "X" article. Like fast food, these pieces were concocted for the instant gratification of their readers. Kennan's telegraphic dispatch was meant to provide his readership in the State Department (and beyond in Washington) with an accessible, appealing and readily digestible guide to Soviet motivations and intentions. Thus there was no place for equivocation and qualification either in the 'The Long Telegram's' analysis of Soviet behaviour or in the policy recommendations that followed from it. This observation applies equally to 'The Sources of Soviet Conduct'.

In a concise but accurate summary of the contents and tenor of the latter document, Quincy Wright observes that,

> Mr X has argued for containment on the ground that the Soviet state by its ideology, by its need of maintaining domestic authority, and by the requirements of a monolithic party, is irrevocably committed to the

\(^{130}\) Kennan, 'Reflections on the Walgreen Lectures', *op. cit.*, p. 161; emphasis added.
proposition that the capitalistic world is its enemy. According to this opinion, Soviet conciliation with the West is impossible. The Soviets must continually strive to conquer.\footnote{Quincy Wright, ‘On the Application of Intelligence to World Affairs’ in Wright, Problems of Stability and Progress in International Relations, op. cit., p. 208}

Proffering advice of this nature to American policy makers and military strategists would have done little to dissuade them from concluding that the threat presented by the Soviet Union was imminent, potentially overpowering and, most importantly, fundamentally military in nature. They were increasingly inclined to that view anyway. The reckless and deliberately provocative rhetoric employed by Kennan in describing the Soviet Union and its leadership simply confirmed these policy makers and strategists in their prejudices. Wright also astutely points out that containment is a dangerous policy because it runs the risk of releasing forces which it ostensibly seeks to control and suppress. Indeed, it could be that, by providing a “justification for the Soviet theory that the world is their enemy”, containment actually “...strengthens their will to expand and stimulates them to develop the means for implementing that will.”\footnote{Ibid., p. 209} In other words, for Wright containment was a dangerous policy because the prophecy of Soviet behaviour upon which it was based virtually compelled the United States to adopt measures that ran the distinct risk of forcing the Soviet Union to behave as predicted, that is, to present a military threat that could only be overcome with military means (“unanswerable force”). The American military threat to the Soviet Union was likely to beget a military response which in turn called for heightened military preparations by the United States.

Wright’s critique of containment does not directly take issue with the geopolitical or ideological orientations of Kennan’s analysis and interpretation of Soviet behaviour. It simply raises the question of whether the containment policy might be self-defeating from a tactical and strategic point of view. Walter Lippmann did, however, find much fault with the “ideological underpinnings” of containment and also the “tactical prescriptions for checking the Soviets” that had been advanced
by Kennan. It was for both ideological and tactical (and, perhaps strategic) reasons, then, that he, like Wright, found the policy of containment to be self-defeating. As seen above Kennan had discerned powerful continuities that bound the Stalinist regime to its Tsarist predecessors. He had for instance found in the “religious orthodoxy” of the Tsars a precedent for the suffocating “ideological orthodoxy” of the Soviet period. Nevertheless, in his most influential papers Kennan had particularly emphasised the importance of ideological fanaticism to an understanding of Russian foreign policy under Stalin. This is where Lippmann most clearly parted company with him. In comparing Russia with the British empire, Lippmann had concluded that, “[I]deologies might come and go, but Russian national interests (like those of the British Empire) were eternal.” For this reason he believed that, “Soviet foreign policy was the same as Russian foreign policy under Peter the Great”. Daniel Yergin points out that Lippmann was one of the “declining number” of influential commentators on foreign policy in the United States who were “...interested less in the theology of confrontation than in the diplomacy of Great Powers.” Notwithstanding Lippmann’s views, the ideological orientation of American policy makers was leading them to exaggerate the significance of the ideological and doctrinal elements in Soviet foreign policy. Ironically perhaps, this only served to reinforce and deepen the ideological orientation of America’s own foreign policy. Put another way, the doxa became more dogmatic and firmly entrenched than it had ever been before and as this trend intensified so did the strategy of deterrence increasingly displace the policy of containment.

134 Yergin, op. cit., p. 261
135 Seen in this light, American policy makers were committing the “...popular fallacy of equating the foreign policies of a statesman with his philosophic or political sympathies, and of deducing the former from the latter.” Hans J. Morgenthau, op. cit., p. 7. Morgenthau, however, does not interpret post War policy of containment in this way, but merely has this to say: “The policy of containment erects a wall, either a real one, such as the Great Wall of China or the French Maginot Line, or an imaginary one, such as the line of demarcation drawn in 1945 between the Soviet orbit and the Western world. It says in effect to the imperialistic nation [in this case, the Soviet Union]: ‘Thus far and no farther’, warning it that a step beyond the line entails the virtual certainty of war.” Ibid., p. 59
From a geopolitical point of view, the sweeping, universalistic rhetoric of the Telegram and the “X” article also seemed to suggest that American and Western security depended on much more than building up the strength of the major centres of power on the rimland and off-shore island groups of Eurasia. As seen above, in some of his other documents and publications Kennan had emphasised the importance of the rimland and offshore island powers. He had identified five major centres of industrial and military power and of these, one was a rimland power (Germany) and two off-shore island groups (Great Britain and Japan). Kennan’s emphasis on the rimland and off-shore centres of power was an adaptation of Spykman’s view that the rimland of Eurasia was the key geopolitical region of the world.

But American strategy was also based on a Mackinderian belief in the heartland power’s potential for world domination. This presented something of a dilemma for American policy makers. There was a fundamental inconsistency in the geopolitical reasoning that underpinned American strategy. The Truman Doctrine had, despite its universalistic rhetoric, concentrated on Greece and Turkey which were, along with the Middle East, “logistically vital” to the centres of military and industrial power. The Marshall Plan and American occupation policy in Japan were predicated on the importance to the security of the United States of the Eurasian rimland and offshore island powers. But, according to the analysis in ‘The Long Telegram’ and ‘The Sources of Soviet Conduct’, the Soviet threat was so grave precisely because it had virtually no geographical limits. According to the latter document, for example, the Soviet Union had to be confronted with “counter-force” at a “series of constantly shifting geographical points”. As Gardner points out, “[T]he author of the “X” article had not limited himself geographically to five regions in 1947, because, given his interpretation of Soviet behavior, he simply could not do so.”136 The geographical open-endedness of containment was perfectly in accord with Kennan’s belief that Soviet foreign policy was driven by the fanatical ideology of the Stalinist leadership. Not only

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136 Gardner, op. cit., p. 281
was this a misreading of Soviet foreign policy under Stalin, it was also in keeping with the American tradition of confusing forms of government with behaviour of governments or, in Morgenthau’s terms, of fallaciously equating the foreign policies of a head of state with their political sympathies. In short, containment’s ideological underpinnings—and the more compelling half of its geopolitical foundations—ensured that it would be a strategy without fixed and definable geographical limits. This, as Gardner notes, was behind Lippmann’s belief that, “[C]ontainment gave an opponent shorter logistical limes of communication; it saddled the U.S. with unreliable allies to hold the line; it meant, in sum, trying to police the world.” In policing the world, military instruments would take clear precedence over economic and diplomatic initiatives.

According to Gaddis, Lippmann “inaccurately but understandably” regarded ‘The Sources of Soviet Conduct’ “as an expression of Administration policy” and “blasted” the policy of containment as a “‘strategic monstrosity’”. Gaddis bases his charge of inaccuracy against Lippmann on the selectivity of the Truman Doctrine (the singling out of Greece and Turkey), and on Kennan’s writings in which he preferred to emphasise the strategic importance of the five major centres of military and industrial power rather than insist on the need for a policy of global containment of the Soviet Union. Lippmann was “wide of the mark”, says Gaddis, because “...despite the universal rhetoric of the President’s address, the U.S. government at that time had neither the intention nor the ability to police the world against communism.” However, from the point of view of the military strategy of the United States, Lippmann was much nearer the mark than Gaddis. By concentrating on the economic, political, diplomatic, and vaguely

137 In ‘America’s Unstable Soviet Policy’ (originally published in 1982, cited above) Kennan suggests that, after the Second World War, the United States had to deal with the Soviet Union as a “traditional military great power” rather than as a “revolutionary political force”. This is completely at odds with his 1940s analysis of the sources of Soviet foreign policy and the advice he offered to America’s policy makers after the War.

138 Gaddis, op. cit., p. 298


140 Gaddis, ‘Truman Doctrine’, op. cit., p. 390
psychological features of the policy of containment, Gaddis lost sight of its military, specifically nuclear, underpinnings. He also disregarded the Eurasian and broadly global scope of the strategic planning of the United States and the rapidly expanding size and extent of its military infrastructure. This expansion, which accorded well with the militarisation of containment, would bring the ambitious strategic intentions and burgeoning military capabilities of the United States increasingly into line.

3.8 Conclusion

While containment was geographically open-ended, it was at the same time a response to the new geographical and technological realities that were considered above. The militarisation of containment ensured that the strategy of nuclear deterrence would be similarly open-ended and that it would also be a response to the contraction of distances which separated the United States and the Soviet Union. Air power helped to obviate the problem of the geographical open-endedness of American strategy precisely because it dramatically shrunk not only the distances that remained between the Soviet Union and the United States at the end of the Second World War but also between the United States and other parts of the world. This was, of course, a two-edged sword but because the United States Air Force then was the most powerful long-range strategic striking force on earth the shrinkage of distances worked much more in America's favour than the Soviet Union's. In short, as the range and speed of bombers increased, and as greater numbers of them were produced, so too were widely dispersed regions of the Soviet Union--and the globe--brought within range of the overwhelming and constantly growing destructive capabilities of the air-atomic striking force of the United States. It is argued in the next chapter that, in essence, this is what worried Kennan (and precisely what is the chief focus of that chapter).

The manner in which the United States conducted its strategic bombing campaigns during World War II had left its indelible imprint on post War American nuclear strategy. Furthermore, the United States had actually used the atomic bomb against Japan, and it refused to renounce first-use of nuclear weapons. In
consequence, not only was the whole rationale for deterrence undermined, but, Kennan also realised, the United States was preparing to wage a war in which the wholesale destruction of the enemy was the immediate objective. As the factors of distance and time ceased to cushion the effect of the political and other differences in the Soviet-American relationship, and while the military forces of the Soviet Union and the United States faced each other in the centre of Europe and in the northern Pacific, so did the fact that America's nuclear forces were being kept for pre-emptive purposes, not their retaliatory capabilities and deterrent purposes, become increasingly worrisome. Under these circumstances and with tensions running high, it could well be the United States that unleashed World War III. As Kennan had admitted in a number of his writings, there was little prospect that the Soviet Union would do so.

Kennan's critique of the strategy of nuclear deterrence is the subject of the first section of the next chapter. The discussion and analysis of his critique will reveal how faithful the strategy was to the modern American military tradition, particularly in its emphasis on overwhelming force and wholesale destruction (and pre-emption) in pursuit of unconditional surrender. It will be seen in the following chapter that as American air-atomic capabilities inexorably grew so did the nuclear destruction of the Soviet Union that was premeditated in America's war plans become increasingly total and exterministic in scope. As this exterministic trend continued and intensified, the objective of unconditional surrender became more and more fanciful—who or what would be left to do the surrendering?. As with the strategic bombing campaigns conducted by the United States in World War II, in America's nuclear strategy the means became increasingly disjoined from the ends. Indeed, strategy became little more than an exercise in the management of complex weapons system. In other words, nuclear strategy was highly technocratic in orientation.
CHAPTER 4

AMERICAN NUCLEAR STRATEGY:
OVERWHELMING FORCE, WHOLESALE DESTRUCTION AND
PRE-EMPTION

4.1 Preface

Kennan’s critique of deterrence, which is examined in section 4.2, is interesting and worthy of close scrutiny from a number of points of view. First, it shows that even a senior American policy maker who was firmly entrenched in the doxa, and, indeed, who had played no insignificant part in articulating the doxa—especially its geopolitical elements—could have profound and genuine moral misgivings about American military strategy. Kennan’s misgivings were first expressed even as the Cold War was getting into high gear in the late 1940s. Within senior policy making circles, his was a lone voice. It also has to be emphasised that Kennan’s misgivings did not lead him into heresy or apostasy. In other words, he did not abandon the fundamental tenets of the doxa. Rather, his critique focused on the means by which containment would be enforced, not on the ends of the policy he had inspired. Even here, however, Kennan realised, partially at least, that as containment became more and more militarised and military, particularly nuclear, means were given priority over the economic, political and psychological instruments of containment he had recommended, so were political objectives increasingly displaced by military ends.

As suggested in the conclusion to the former chapter, the point of examining Kennan’s critique of deterrence is to get to the core of the strategy of nuclear deterrence. The trouble is that his critique only extends as far as the doxa would allow and therefore has to be abandoned when it ceases to offer insights into American nuclear strategy. This is not to deny that his criticisms of American nuclear strategy are, as far as they go, worthwhile, and worthy of the attention they are given here. It is simply that Kennan does not completely lift the lid on
American nuclear strategy for he was not able or willing to do so. This is seen most clearly in the section 4.3. Subjected to critical review there, are Kennan’s and a number of other historians’ arguments on why, after the Second World War, the United States opted for a military strategy that depended on nuclear weapons.

It is argued in section 4.3 that, contrary to Kennan and the other historians cited there, an alleged Soviet superiority in conventional armaments did not compel the United States to formulate a strategy based on the possession and early use of nuclear weapons. As will be seen, while American military planners and analysts were concerned about the implications of the post War demobilization of the American army, the size of the Soviet army, and the “sovietization” of eastern Europe, they were just as impressed by Soviet strategic weaknesses and vulnerabilities, and by the strategic strengths and advantages enjoyed by the United States. Here the most significant factors were the offensive capabilities of the American strategic air force which were vastly superior to those of its Soviet counterpart, and America’s exclusive possession of the atomic bomb. In section 4.4 the early post War military planning of the United States is considered, for it reveals how the policy makers and planners sought to exploit both American strengths and Soviet weaknesses to the advantage of the United States. The point is, however, that the origins and sources of American nuclear strategy are not to be found in American concerns about the military and strategic situation which obtained in Europe at the end of the War but have to be sought elsewhere.

The apparent success of the strategic bombing campaign conducted over Japan by the US Army Air Forces during the Second World War explains why, after the War, the United States opted for a military strategy the centrepiece of which was the early use of nuclear weapons. For the Air Force commanders and their civilian masters, the atomic bombings of Hiroshima and Nagasaki were the climax and crowning glory of the strategic bombing campaign. As seen in Chapter 1, the World War II strategic bombing campaigns were entirely in conformity with, and contributed to the development of, the modern American military tradition that had commenced with the American Civil War. Overwhelming force, wholesale
destruction, and unconditional surrender were the main elements in this tradition. The atomic bombings of Hiroshima and Nagasaki were especially important in establishing in the minds of American policy makers and military planners a causal link between the wholesale destruction so efficiently wrought by atomic bombing and unconditional surrender. In section 4.8 it is argued that this link was at best inaccurate, at worst mythical, for the reasoning upon which it was based failed to take into account other, far more influential, factors that induced the Japanese surrender. The sustained campaign of strategic bombing with conventional and high explosive bombs, and the devastation and dislocation it wrought, was one of the most significant of these factors. Nevertheless, the military planners who actually formulated the plans for war with the Soviet Union, and the senior policy makers who produced the classified statements that were intended to provide the planners with guidance on American nuclear weapons policy, all firmly believed that there was a clear, causal link between atomic bombing and unconditional surrender. Evidence of this line of reasoning is to be found in the war plans and classified statements themselves, a number of which are analysed in sections 4.7 and 4.8 respectively.

The same documents also make it very clear that American policy makers and military planners were interested in the early use of atomic weapons and accordingly gave little or no attention to the retaliatory capabilities and supposed deterrent purposes of these weapons. Before the Soviet Union first successfully tested a nuclear weapon in 1949, the early use of atomic bombs in a war with the Soviet Union was intended to make the most of exclusive possession of the atom bomb and the superiority in the long-range offensive capabilities which the United States enjoyed, and to minimise the military significance of the large Soviet army. After the Soviet Union acquired nuclear weapons, “early use” became “pre-emptive use”. The emphasis which the policy makers and planners put on the pre-emptive use of nuclear weapons accorded well with another element of the American military tradition, one of considerably older vintage than the elements mentioned thus far This had to do with striking the first blow and refusing to relinquish the initiative to the enemy. Its incorporation into American nuclear
strategy was just as complete as was the integration into the strategy of the other elements of the modern American military tradition. This raises the important question of how the adoption in 1948 of a national strategy of “deterrence” by the senior policy makers of the United States is to be explained and understood.

At least it is clear that they could not have meant by “deterrence” the same thing as was meant by Bernard Brodie. But what could they have meant? At this stage, “deterrence” for these groups was the foreseen but largely unintended by-product-intimidation of the enemy—of the planning for the early use of nuclear weapons. After 1949, “deterrence” became the unintended by-product of planning for the pre-emptive and massive use of nuclear weapons. Still later, by the mid-1950s when the United States and the Soviet Union both had acquired thermonuclear weapons and both had a strategic air force of intercontinental range, “deterrence” became squarely equated with pre-emption. As noted above, the statements of high policy on nuclear weapons produced by the senior policy makers were intended to provide guidance to the strategic (JCS) and military (SAC and the USAF) planners on the nature and objectives of American nuclear weapons policy. Yet these statements made no explicit decision either on the timing and circumstances in which nuclear weapons would be used or on pre-emption.

It is argued on the basis of the documentary evidence which is cited and analysed in sections 4.7 and 4.8 that no decision on use or pre-emption was required of the senior policy makers because the statements on nuclear weapons policy they produced were prepared in the certain knowledge that the military and strategic planners were planning for the pre-emptive and massive use of nuclear weapons. The senior policy makers did not direct the planners to do otherwise so, in effect, they sanctioned indirectly or by default the planning for the pre-emptive and massive use of nuclear weapons. It is further argued in sections 4.7 and 4.8 that the decision to make no decision on use or pre-emption was intended to maximise the uncertainty and unpredictability faced by Soviet policy makers and planners when they attempted to ascertain the strategic intentions of the United States.
From as early as 1948, American policy makers sought a strategic advantage for the United States in bewildering the leaders of the Soviet Union with regard to the exact nature of American strategy—and the exact meaning of “deterrence”. This was the objective of the “stated” or “declaratory” nuclear weapons policy of the United States which in the late 1940s and through the 1950s amounted to saying virtually nothing openly or in public about American plans for using nuclear weapons. Action or employment nuclear weapons policy was contained in the high policy documents and strategic and military plans. While the distinction between stated/declaratory and action/employment policy is considered more fully in the following chapter, it is introduced in section 4.7 for it highlights the full extent of “the gap” which divided the deterrence paradigm from the intellectual framework of pre-emption and of the widely divergent concepts of “deterrence” they contained.

Saying nothing about American intentions on use or pre-emption, and therefore failing to define or clarify what the policy makers and planners meant by “deterrence”, presented considerable difficulties for the Soviet Union. The prodigious and relentless growth in American offensive nuclear capabilities from the late 1940s through the 1950s which is traced and quantified in section 4.8 proceeded unaccompanied by any statements on use from the high policy makers. Nevertheless, these capabilities were fully consistent with the strategic intentions and objectives of actual or employment policy. It is argued through sections 4.7, 4.8 and 4.9 that the strategic theorists’ concept of “deterrence” took the place, virtually by default, of an American declaratory nuclear weapons policy, but was entirely inconsistent with the strategic nuclear capabilities of the United States. Moreover, it gave a completely false impression of actual policy and of American strategic intentions. Thus, Soviet policy makers and planners were forced to operate in a dangerously unpredictable and uncertain strategic environment. The theorists, on the other hand and as will be seen in the following chapter, put great emphasis on the rationality of policy makers and, after the Soviet Union acquired its own nuclear and thermonuclear capability and long-range strategic striking force, on the stability of the mutual deterrence relationship between the United
States and the Soviet Union—and therefore on the certainty and predictability of nuclear weapons policy and strategy. For the moment, however, Keiman’s critique of deterrence will be analysed in order to begin the task of analysing the development of the strategy of nuclear deterrence.

4.2 Kennan and the strategy of nuclear deterrence

George Keiman expresses regret that during the Second World War the United States readily opted for the practice of waging war against non-combatants, indeed entire civilian populations. The destruction of civilian populations was related to the adoption of a strategy of unconditional surrender. Both the First and Second World Wars, says Kennan,

...ended in unconditional surrender, encouraging us in the view that the purpose of war was not to bring about a mutually advantageous compromise with an external adversary seen as totally evil and inhuman, but to destroy completely the power and the will of that adversary. In both these wars, but particularly the second, we departed increasingly from the principle, embodied in the earlier rules of warfare, that war should be waged only against the armed forces of an enemy, not against the helpless civilian population. And it was by our wholehearted acceptance of the practice of waging war against civilians as well as against soldiers, and especially by our commitment to the so-called area bombings of World War II, that we were led into the terrible bewilderments we are confronting today.

By these “terrible bewilderments” Kennan means essentially the problems of nuclear strategy. He implies that the nuclear strategy of the United States is a product of its political and military leaders’ devotion to a strategy of unconditional surrender, a strategy which entails the wholesale destruction of the enemy. It also owes much to their willing adoption during World War II of the practice of “area bombing” which, as follows logically, also entails wholesale destruction of the enemy. Area or strategic bombing was adopted because it was thought to be the most efficient and effective means of bringing about the

enemy’s destruction, and therefore of forcing the enemy into unconditional surrender. The reasoning is simple and brutal, and therefore appealing: bombing equals destruction which in turn begets surrender. As will be seen below, after the atomic bombings of Hiroshima and Nagasaki this had been simplified to “atomic bombing induces unconditional surrender”.

For Kennan, it was this line of reasoning which had led American policy makers and strategists into the gravest of errors. According to Kennan, one of the “great postwar mistakes” made by the United States was to embrace the “nuclear weapon as the mainstay of our military posture”. American policy makers and military strategists wrongly believed that the atomic bomb would assure the post War “military and political ascendancy” of the United States. They made the “primitive error”, reckons Kennan, of “supposing that the effectiveness of a weapon was directly proportionate to its destructiveness—destructiveness not just against an enemy’s armed forces but against its population and its civilian economy as well.”

Kennan reports that he first personally confronted the problems of nuclear strategy in 1946-47 when he was a deputy commandant of the National War College. He had responsibility for designing the College’s “political-military course of instruction”. As it happened, one of the other four “civilian instructors” with whom Kennan worked at the National War College was Bernard Brodie. Brodie had just completed editing The Absolute Weapon which, as Kennan observes, was a “pioneering work” on the atomic bomb. 3 In any event, Kennan was not even at that early stage in the thrall of atomic weapons. He regarded the use of the atomic bomb in the war against Japan “...as a regrettable extremism, born of the bad precedent of the conventional strategic bombings of the war just then ended and

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Nevertheless, as with Brodie, Kennan believed that the value of nuclear weapons resided in their retaliatory capabilities and deterrent purposes.

In ‘The Atomic Bomb and the Choices for American Policy’ (first published in 1950), Kennan observes that “...barring some system of international control and prohibition of atomic weapons, it is not questioned that some weapons of mass destruction must be retained in the national arsenal for purposes of deterrence and retaliation.” However, in a much shorter article, published in 1954, Kennan tacitly admits that American nuclear weapons were not then being held only for deterrent purposes, but for other, more malevolent and aggressive reasons that were reminiscent of the objectives and conduct of American strategy during the Second World War. He professes to his readers that the “weapons of mass destruction” should be cultivated only for their “deterrent value” (as the strategic theorists understood it)—thus suggesting that nuclear weapons then had other purposes—and insists that the “principle of ‘first use’ of such weapons” should be abandoned. The sooner that is done, he says, the “...sooner we can free ourselves from the false mathematics involved in the assumption that security is a matter of the number of people you can kill with a single weapon”.

4 Ibid.
5 George F. Kennan, ‘The Atomic Bomb and the Choices for American Policy’ in Ibid., p. 4
6 In ‘International Control of Atomic Energy’, begun as a State Department Policy Planning Staff study in the autumn of 1949 and submitted to Secretary of State Dean Acheson in January 1950 as a “personal paper”, Kennan observes that the military planning of the United States was oriented to the “‘first use’ of weapons of mass destruction”. Kennan, ‘International Control of Atomic Energy’, January 20, 1950 excerpted in Thomas H. Etzold and John Lewis Gaddis (eds.), Containment: Documents on American Policy and Strategy, 1945-50, Columbia University Press, New York, 1978, p. 376. As Kennan appreciated, this orientation of military planning would be entirely inconsistent with any American proposals for the international control of atomic energy. He was also worried about the development of the hydrogen bomb, which Truman gave the Atomic Energy Commission authority to proceed with later the same month.
7 George F. Kennan, ‘The Nuclear Deterrent and the Principle of ‘First Use’ in Nuclear Delusion, op. cit., p. 6. In August 1949, the American National Security Council endorsed the document NSC 57, a plan for the defence of Europe which “sanctioned the first-use of nuclear weapons by the United States. It was also the first to encompass the ‘umbrella’ concept of NATO, in which U.S. atomic hegemony would provide not only the principal deterrent against a Russian attack on Europe but also the means of halting Soviet aggression if deterrence failed.” Gregg Herken, The Winning Weapon: The Atomic Bomb in the Cold War 1945-1950, Vintage Books [a division of Random House], New York, 1982, p. 301. By the early 1960s, “...NATO nuclear strategy, to which the US was the main contributor, was not rigidly oriented towards the use of nuclear weapons solely for the purposes of retaliation. On the contrary, despite considerable pressure in
later), Kennan points out that it has been the United States which “at almost every step of the road” has taken the lead in the development of the weapons of mass destruction. Moreover, the list of American initiatives and innovations is a long and disturbing one: “It was we who first produced and tested such a device; we who were the first to raise its destructiveness to a new level with the hydrogen bomb; we who introduced the multiple warhead; we who have declined every proposal for the renunciation of ‘first use’; and we alone, so help us God, who have used the weapon in anger against others, and against tens of thousands of helpless noncombatants at that.”

If Kennan was worried about the American refusal to renounce first use, then Curtis Le May, the Commanding General of the Strategic Air Command (SAC), was positively sanguine about it. (SAC was America’s nuclear strike force and Le May was appointed its Commanding General in 1948.) Indeed, Le May seemed to regard striking the first blow as being an important part of the American military tradition. In responding to the question (asked by a Navy Captain) of whether the Strategic Air Command’s plans for war with the Soviet Union were consistent with the “stated national policy that the U.S. will never strike the first blow”, Le May had this to say:

I have heard this thought stated many times and it sounds very fine. However, it is not in keeping with United States history. Just look back and note who started the Revolutionary War, the War of 1812, the Indian Wars, and the Spanish-American War. I want to make it clear that I am not advocating a preventive war; however, I believe that if the U.S. is pushed in the corner far enough we would not hesitate to strike first.

international fora, NATO had refused to make a pledge of ‘no first use’ of nuclear weapons on the grounds that deterrence rested on that very possibility.” Lawrence Freedman, The Evolution of Nuclear Strategy, MacMillan, London & Basingstoke, 1981, p. 242


Le May's observations on striking the first blow relate to larger issues and problems associated with the pre-emptive uses of nuclear weapons that will be considered below. His views are interesting, for they are drawn from the military planners' intellectual framework that stood between the *doxa* and the planning for pre-emptive uses of nuclear weapons. Although Le May and Kennan held opposing opinions on the first or pre-emptive uses of nuclear weapons, both apparently were convinced (one regretfully, the other happily) that the United States would not resile from using nuclear weapons even before the enemy did so. Both appealed to American military tradition and historical precedent to support their views. While Le May found positive and worthwhile precedents for striking first, Kennan discovered worrying and dangerous trends that put the practicability and morality of American nuclear strategy in serious question.

It has to be emphasised that Kennan was no less immersed in the *doxa* than Le May. After all, the "Long Telegram", 'The Sources of Soviet Conduct' and his other articles and documents drew on and contributed to the development of some of the most important elements of the *doxa*—both that part of it dealing with the expansionist and aggressive tendencies of the Soviet Union and the part dealing with the fitness of the United States to lead the global struggle against Soviet communism. Kennan had probably done more than anyone in Washington's policy making circles to articulate clearly, indeed systematise, the geopolitical assumptions and beliefs of the *doxa*. He had also helped to ensure that those assumptions and beliefs were fully integrated into the *doxa* and were not simply some detachable or dispensable part of it. The post War policy of containment was a longstanding tribute to his advocacy.

In a sense, Kennan worked within the same paradigm as the strategic theorists. He conceded that nuclear weapons could be made to serve a useful purpose. As with

Moore adds "or words to this effect" after Le May's answer. The title of the paper comes from Moore's "final impression" after hearing SAC's "Optimum Plan" that "...virtually all of Russia would be nothing but a smoking, radiating min at the end of two hours." *Ibid.*, p. 25 According to Le May, SAC's mission was to conduct "strategic air warfare" against targets in the "Soviet complex" that had been selected by the Joint Chiefs of Staff. SAC would conduct the strategic air offensives against the Soviet Union that were contemplated in American war plans, several of which are considered later in this chapter.
the strategic theorists, Kennan regarded this purpose as being the “deterrence” of Soviet aggression, a purpose, moreover, which was to be achieved not by the planning for the pre-emptive use of nuclear weapons or pre-emption itself but by enhancing their retaliatory capabilities. Unlike the strategic theorists, however, his view of the capabilities and purposes of nuclear weapons was based on despairing hope not on theoretical fixity or academic certitude. Kennan and the strategic theorists all knew that policy making and military planning sanctioned, either by default or directly, the pre-emptive use of nuclear weapons but differed on how possible it was to change official conduct. The theorists believed in the superiority and eventual triumph of their analytical methods over the outdated and dangerous practices and habits of mind of the military profession but Kennan thought that the heavy weight of military tradition and practice rendered the pre-emptive thrust of nuclear war planning immune to remediation by rational argument or moral suasion. It was no wonder, then, that at the end of 1949 he resigned as Director of the Policy Planning Staff in the State Department, for at this level of policy making Kennan would have found it impossible to resist the tide of offensive nuclear militarism that was sweeping across Washington in the late 1940s.

Kennan displayed considerable insight in identifying and highlighting the links between American military strategy during the Second World War and US post War nuclear strategy. In particular, the practice of strategic bombing, by which amongst other things wholesale destruction of the enemy’s civil society and population was carried out, did have a profound and lasting impact on American nuclear strategy. Nowhere is this more evident than in American plans for war with the Soviet Union, a number of which will be considered in sections 4.7 and 4.8. But, as seen in Chapter 1 and noted above, a military strategy based on the enemy’s wholesale destruction and unconditional surrender has a considerably longer pedigree than Kennan acknowledges. While he does note that America’s Second World War strategy was in some respects prefigured in World War I, he does not delve deeper than that. Had he done so, he would have discovered that United States strategy in the Twentieth Century was foreshadowed in the military
strategy conducted by Lincoln, Grant and Sherman during the American Civil War.

American nuclear strategy was heir to both Grant's and Sherman's style of warfare. The strategy was based on the superior resources of the United States: its ability to mobilise and deploy far greater quantities of industrial, scientific and technological resources than the Soviet Union was able to marshal to its cause. As will be seen in section 4.7, the air-atomic offensive to be conducted by the Strategic Air Command, as outlined in American war plans, was a combination of a Grant-style massive frontal assault on the Soviet Union and a Sherman-style campaign that was planned to destroy the Soviet Union's war-making capacity by annihilating the urban-industrial sector of Soviet society. It was also confidently expected by American military planners that this would help to weaken the will of the Soviet people to resist—and exterminate exceedingly large numbers of them in the process. Unlike Soviet military strategy, American military strategy was capital not labour intensive relying as it did on American industrial power and technological know-how more than its reserves of manpower. This was especially true of American nuclear strategy which, in keeping with this technological inclination, was also extremely technocratic. That is to say, the making of nuclear strategy became little more than an exercise in the management of complex weapons systems. In other words, and as anticipated by the strategic bombing campaigns conducted against Japan during the Second World War, military means dictated military ends and these ends displaced, indeed effectively eliminated, any political objectives. But what precisely does it mean to say that means dictated ends?

The large, unwieldy and compartmentalised bureaucratic machinery of American nuclear war planning, which is studied in sections 4.5 and 4.6, greatly contributed to the severing of the military means from the strategy's political objectives and to the virtual elimination of those objectives. The building of an extremely hierarchical and highly bureaucratised nuclear war planning machine had the inevitable effect of fragmenting the tasks and compartmentalising the
responsibilities of the civilian and military personnel who ran it and worked within it. The dis-integration of an overall political objective of strategy—in line with fragmentation and compartmentalisation—its usurpation by a strictly military end, and a fixation on the means for bringing it about were all similarly inevitable. These tendencies intensified as the capability (that is, the means) for inflicting wholesale destruction increased.

From about 1948 onwards the size of the American atomic arsenal and strategic striking force grew prodigiously—and continued to do so without much interruption for the remainder of the Cold War. The constantly expanding capacity for wholesale destruction put the political objective of the enemy’s unconditional surrender under a cloud (a very large mushroom one). In other words, the military end of wholesale destruction increasingly displaced the political objective of unconditional surrender—whether or not American policy makers and military planners acknowledged this to be the case. The means of inflicting wholesale destruction were consciously sought by policy makers and military planners, but as they were acquired in greater and greater numbers and greater and greater capacities, so they increasingly dictated a strategy of wholesale destruction and utter devastation. Indeed, they foreclosed almost any other option. As will be seen in the following chapter, deterrence theory and strategic studies also concentrated far more on the military means than the political objectives of strategy. The main concern of the strategic theorists was with having enough destructive capacity ready at hand and protected from enemy attack to deter the enemy from launching a first-strike in the first place. However, by focusing on the deterrent purposes of nuclear weapons, which were to be achieved by protection of their retaliatory capabilities, they condemned themselves to virtual exclusion from the nuclear weapons policy and strategy making process in which pre-emption was the order of the day.

The following section will critically review the views of a number of historians and commentators, starting with Kennan himself, who have argued that, because of Soviet conventional military superiority in Europe after the Second World War,
the United States was compelled to adopt a military policy based on the
possession and early use of nuclear weapons. The myths peddled by these
historians obscure the sources and origins of American nuclear strategy which are
to be found in the strategic bombing campaigns of the Second World War which
grew out of, and in turn contributed to the development of the modern
American military tradition. As already noted, the main elements of this tradition
were constitutive of the intellectual framework of pre-emption. The point of
reviewing the views of these historians is that they reveal the pervasive influence
outside official policy and planning circles of the theory of “deterrence” and of the
assumptions which constituted the deterrence paradigm, a pervasiveness which
owed much to the “declaratory” policy of silence on use and pre-emption. One of
the fundamental assumptions of the theory was that American nuclear weapons
had solely “deterrent” purposes. Beneath the theory was the deterrence paradigm
which drew from the doxa the belief that the Soviet Union was inherently
expansionist and aggressive. American nuclear weapons would “deter” the Soviet
Union from using its bloated army to put its malevolent intentions into effect and,
when it was nuclear-armed itself, from launching a devastating first strike against
the United States. Thus, according to the theory, at the beginning of the Cold War
the United States found itself in a dangerous adversarial situation that pointed to
and strongly recommended the deterrent purposes of nuclear weapons, purposes
that could be achieved by protecting the retaliatory capabilities of the weapons.
The historians whose work will be reviewed in the following section uncritically
accept this line of reasoning. As will be seen, the theory and the work of these
historians are well out of step with the estimations of comparative Soviet and
American strategic strengths and weaknesses that were produced by American
military analysts and planners immediately after the end of the Second World
War. Thus, they provide further evidence of the early origins of the gap which
stood between the deterrence paradigm and the intellectual framework of pre-
emption.
4.3 The provenance of the strategy of nuclear deterrence: myths and realities

Mixed in with George Kennan’s well-intentioned reflections on his early views about the militarisation of containment, and about atomic weapons and strategy, that were discussed above, are a number of observations on the reasons the United States opted for a military strategy that was based on the possession and “first-use” of nuclear weapons. The simplistic equation of wholesale destruction with unconditional surrender, and a belief that forcing the enemy into unconditional surrender was the purpose of war were, in Kennan’s opinion, two of the primary reasons for the United States’ going down the nuclear road with such reckless abandon. Atomic bombing was regarded by America’s political leaders and military strategists as being merely an extension of the practice of bombing with “conventional” high explosives and incendiaries, and that practice was itself predicated on the supposed military and strategic utility of the wholesale destruction of the enemy. While Kennan reluctantly endorsed the strategy of nuclear deterrence, his opinions on nuclear weapons are in general well-considered, even balanced. Nevertheless, he could be quite blunt and on occasion openly display a large measure of geopolitical cynicism -- or perhaps bravado.

As was noted in Chapters 2 and 3, at the end of the Second World War the Soviet-American relationship underwent a fundamental change that was the result of a major geopolitical displacement. But, as Kennan observes, this new displacement was complicated by a number of military factors:

The end of the war...had left the United States with little in the way of military manpower (in view of its precipitous demobilization) but with a bloated military superstructure, and particularly with an expanded apparatus for military planning, for which use now had to be found. With Germany and Japan out of the way, there was need of a new prospective opponent with relation to whose military personality a new American posture could be designed. The Soviet Union was the obvious, indeed the only plausible, candidate.10

There are several noteworthy points in this quote. One that unfortunately cannot be taken up at length here is Kennan’s tacit acknowledgment that, at the end of the war, America’s “bloated military superstructure” and “apparatus for military planning” made it almost imperative for the United States to find a new enemy which had the requisite “military personality” for giving the American arsenal a post War raison d’etre. It was bad luck for the Soviet Union that it was the only power then able to fit the bill. This is, to say the least, a curious reconstruction of the early history of the Cold War. However, Kennan’s more serious point, again implicit, is that because of the precipitate demobilisation of American military manpower at War’s end, the security of the United States became heavily dependent on the atomic bomb and the other components of its military superstructure (heavy bombers, for instance). In other words, it was virtually by default that the United States remained an atomic power and developed a post War military strategy in which nuclear weapons took centre stage (as it was virtually by default that the Soviet Union was its post War enemy).

As a pretext for relying on the atomic bomb, strategic bombing and so on, the alleged precipitate rate of demobilisation was extremely flimsy. This is not to deny that after the War the United States did demobilise considerably in terms of troops numbers. But, as will be seen below, the retention of a bloated military apparatus for waging air and atomic warfare was a more than adequate offset to these cuts—a point overlooked by Kennan. Nevertheless, there is a school of American liberal Cold War historiography which does, like Kennan, insist that the extent of America’s demobilisation did force it into dependence on atomic weapons. Not only does this school almost completely disregard the extent of the Soviet Union’s own troop reductions at the time, it is also myopic with respect to the longstanding American military tradition in which overwhelming force, wholesale destruction, unconditional surrender and a refusal to relinquish the initiative to the enemy were the key elements. As America’s World War II strategic bombing campaigns had clearly demonstrated, the continuation of this tradition did not always have to rely on labour-intensive armed forces. Indeed, the
strategy of nuclear deterrence was highly capital-intensive but remained faithful to the tradition.

John Lewis Gaddis is entirely representative of those American Cold War historians who make a good deal out of American force reductions at the end of World War II. Oddly, though, he also argues that throughout the Twentieth Century the United States has been more dependent on its economic and technological resources than manpower for the conduct of its foreign policy. Gaddis claims that after the War, “[N]o serious attempt had been made to reverse the headlong rush toward demobilization in the light of the Soviet threat: the nation’s armed forces, which had stood at 12 million at the end of the war with Germany, were down to 3 million by July 1946, and to 1.6 million a year later.” He does acknowledge that “Washington officials relied heavily on the atomic bomb as the ultimate deterrent to aggression” but tempers this by claiming that these officials “...differed over how it would be used if war came with the Soviet Union, or whether it would be effective." This acknowledgment, and the claim about the significance of American force reductions, sits uncomfortably with Gaddis’ admission that “[O]ne of the most persistent ideas in American thinking about international affairs in the twentieth century had been that of using economic and technological resources, but not manpower, to maintain the balance of power overseas.” While this relates to the enduring features of the American military tradition that were considered in Chapter 1, it is also relevant to the strategy of nuclear deterrence which is of more immediate concern.

The idea that technological and economic means were more effective instruments of policy than manpower resources appeared, says Gaddis, “...as early as the turn of the century in the Open Door policy; it certainly existed in the mind of Woodrow Wilson between 1914 and 1917; it was also behind the ‘arsenal of

12 Ibid., p. 63
13 Ibid, p. 61
democracy’ concept in the early 1940’s.” It also helped to shape the nature of America’s involvement in the two world wars, where “dollars and hardware” were employed more copiously than men. After the war, of course, the United States enjoyed an unprecedentedly wide margin of economic and technological superiority over both its allies and enemies. It was fitting, therefore, that US policy makers remained faithful to the tradition and sought economic and technological fixes rather than manpower solutions to their foreign policy problems. As Gaddis observes, Kennan’s insistence that the “economic rehabilitation of Western Europe and Japan” should be the centrepiece of the overall policy of containment of the Soviet Union was “...very much in the mainstream of official thinking at the time.” For precisely the same reasons, though Gaddis does not seem to think it worthy of mention, so was the strategy of nuclear deterrence. Not only was this a highly capital-intensive strategy--its viability was, after all, a function of the possession of a large number of aeroplanes and bombs (atomic and conventional), and a preparedness to use them--it was also predicated on the traditional belief that the purpose of war was to wreak wholesale destruction on the enemy in the process of bludgeoning its leaders into accepting unconditional surrender. This notwithstanding, deterrence increasingly became surrounded by a deep ambiguity because it was not clear whether surrender or annihilation was the ultimate objective of US nuclear strategy. As the Cold War progressed and the nuclear arsenal grew so did the capability of inflicting total devastation expand accordingly. Under these circumstances, surrender and annihilation became increasingly incompatible with one another.

The point is, however, that both Kennan and Gaddis use the pretext of precipitate American demobilisation at the end of World War II to account for containment, containment militarism and nuclear deterrence. And while they are not alone in this, theirs is at least a more circumspect interpretation of the historical record than that produced by a number of other authors and commentators. David MacIsaac is one of these. MacIsaac points out that, “…theorizing about air warfare

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14 Ibid.
between 1945 and 1953 took a back seat to the more urgent problems of postwar recovery and the hardening Cold War between the United States and the Soviet Union.” According to Maclsaac “[D]emobilization to the point of disintegration of American military forces” was one such problem. The government, he says, was “quickly led” to seek and find a solution in a “policy of deterrence through the threat of atomic, later nuclear, retaliation”. While this “posture” has over the years “gone through innumerable convolutions of form and detail”, none has been of “conceptual substance”.15

Following much the same line of argument as Maclsaac, David Alan Rosenberg observes that “...the American military was deeply concerned about the power of Soviet conventional forces [that is, its army] in the 1945-1950 period.” This concern was heightened by misgivings about the extent of American demobilization: “American military planners believed as early as December 1945 that rapid demobilization of its armed forces had left the United States able to defend only the Western Hemisphere, while carrying out occupation duties in Germany and Japan and small offensive operations overseas if necessary.” However, as will be seen, the military planners also knew that, despite having a large army, the Soviet Union was weak and vulnerable in terms of other military capabilities, in particular its strategic air force. While there may have been some substance to their concerns about the capabilities of the demobilized American army--especially given the extent of American interests and “responsibilities” after the Second World War--they also knew that the Soviet Air Force paled in comparison with the United States Air Force. Moreover, the Soviet Union did not then have a nuclear capability. Like MacIsaac, Rosenberg fails to acknowledge this. Thus his claim that the Soviet army had been only “partially demobilized” and was “judged capable of taking Western Europe (except Great Britain), Turkey, Iran, the Persian Gulf, Manchuria, Korea, and North China in a matter weeks or months”16 is not set against the more sober estimates of Soviet


capabilities (and intentions) that were produced by American military analysts in the early post War years (and which are discussed below). Furthermore, he observes that,

Although the United States had greater resources available for industrial mobilization than any other nation in the world, military planners were convinced that there would not be time enough to mobilize in the event of war. It seemed unlikely that the Soviet Union would initiate an armed conflict until it had at least partially recovered from damage suffered in World War II. But the American military could not ignore the threat posed by Soviet capability regardless of Soviet intentions. From 1945 on, the realization that the United States was unprepared to counter Soviet conventional forces shaped military strategy.17

Rosenberg follows the lead of the military planners and makes the error, so much lamented by Kennan in his dealings with American policy makers, of portraying the perceived Soviet threat largely in military terms. Unlike the military planners and analysts, however, his portrayal of Soviet capabilities is not leavened with balanced assessments of actual Soviet strategic weaknesses and actual American strategic strengths. Rosenberg, as with other American liberal historians and the strategic theorists, looks at American strengths through the wrong end of a telescope and views Soviet capabilities through a microscope—and with predictable results: Soviet capabilities are magnified out of proportion while those of the United States shrink alarmingly. As if by magic, America's vast industrial and military resources were dwarfed by the swollen ranks of the Soviet army. On this view, then, the United States was left with no other choice than reluctantly to implement a strategy of nuclear deterrence to restore the balance.

The military historian Michael Howard also locates the origins of the strategy of nuclear deterrence in Soviet conventional superiority in Europe. In his view, the problem this superiority presented to American policy makers and military planners deepened after the ending of America's atomic monopoly later in 1949. According to Howard, American policy makers and strategists were faced with a

17 ibid., p. 64
dilemma that remained with them and became more intractable during the course of the Cold War: “Given that Soviet superiority in ‘conventional’ weapons could not be matched by the West Europeans, how could American nuclear superiority be harnessed to the defence of their continent once the Russians had developed the capacity to deter its use by a substantial retaliatory capability of their own?”18 Howard, like his American counterparts, then, seeks and finds the origins of deterrence in the retention by the Soviet Union of superior conventional forces in Europe after the ending of the Second World War. However, for Howard, the strategy of nuclear deterrence really got under way only after the Soviet Union had developed its own effective retaliatory (or deterrence) capability. This post-dated by some years the first successful Soviet atomic test. But a history of American nuclear strategy and deterrence must begin well before this time. And due attention must also be given to Soviet troop reductions prior to 1948. None of the above authors, save Rosenberg who speaks only of a partial Soviet demobilization, seems the least interested in these reductions. Moreover, while Kennan, Gaddis and Rosenberg do mention the magnitude of American military and industrial strength at the end of the Second World War (and even Howard mentions American nuclear superiority), they make virtually nothing of it for, in their view, it amounted to very little in the face of Soviet conventional superiority in Europe. These authors have, however, produced a very incomplete and partial picture of the relative standings of Soviet and American military forces at the end of the Second World War.

Daniel Yergin points out that in May 1945 the army of the Soviet Union “...reached its maximum size of 11,365,000.” Demobilization of the Soviet army began on June 23, 1945 and thereafter proceeded apace. At the beginning of 1948 it stood at 2,874,000 — a composite figure “including, apparently”, air force personnel. According to Yergin, the figure does not seem so large when it is considered that “…a significant part of the Russian forces were, like the American Army, engaged in occupation and police functions in conquered territory”. For comparative purposes, the “ceilings for the American military for July 1, 1947”

were “1,070,000 in the Army, 558,000 in the Navy; 108,000 in the Marines.” At this time, “[T]he British armed services contained well over a million men” and “...the United States held sole claim both to the atomic bomb and to an effective striking force in its strategic bombing units.” Melvyn Leffler observes that, “[A]lthough American defense officials recognized that the Soviets had substantial military assets they remained confident that the Soviet Union did not feel extremely strong.” During 1946-48 the Soviet Union had taken steps to upgrade its armed services in the critical areas of mechanized infantry forces, jet fighters and intermediate range bombers, and, with the assistance of captured German scientists, rocketry and missile technologies. Moreover, the winter 1946-47 estimates of American “military analysts” also concluded that the “...Soviets could mobilize six million troops in thirty days and twelve million in six months, providing sufficient manpower to overrun all important parts of Eurasia.”

In spite of these prima facie alarming assessments, “...American military analysts were most impressed with Soviet weaknesses and vulnerabilities.” In the spring of 1948, the Joint Intelligence Committee at the Moscow Embassy of the United States had concluded that, should war erupt, the United States would emerge victorious because of the inability of the Soviet Union “to carry the war to U.S. territory”. Even if the Soviet Union were able to overrun and occupy Europe, it “would be forced to assume the defensive and await attacks by U.S. forces which should succeed primarily because of the ability of the U.S. to outproduce the U.S.S.R. in materials of war.” Key American defense officials like Secretary of War Patterson and Secretary of the Navy Forrestal also “...believed that Soviet forces would encounter acute logistical problems in trying to overrun Eurasia -- especially in the Near East, Spain, and Italy.” But the assessments of Soviet weaknesses and vulnerabilities went even further than estimates of its

21 Ibid., p. 361
22 Joint Intelligence Committee, Moscow Embassy, ‘Soviet Intentions’, April 1, 1948 cited in Ibid., p. 362
23 Ibid., p. 361
comparatively weak productive abilities and potential logistical problems. Remarks Leffler, "[T]he Soviets had no long-range strategic air force, no atomic bomb, and meager air defenses" and the "...Soviet navy was considered ineffective except for its submarine forces." Many American experts also believed that the Soviet Air Force lagged well behind its American counterpart in almost all critical areas, including the obsolescence of its aircraft, inadequate airfields and supplies of aviation fuel, and had "serious problems" in the "instrumentation and construction" of even its new aeroplanes. The situation was well summed up by the United States Joint Intelligence Staff in January 1946: "the offensive capabilities of the United States are manifestly superior to those of the U.S.S.R. and any war between the U.S. and the U.S.S.R. would be far more costly to the Soviet Union than to the United States."24

The point missed by the historians cited above was that the post War military strategy of the United States, especially its nuclear component, reflected and sought to exploit America's acknowledged superiority in offensive capabilities. These historians, like Brodie and later strategic theorists, imagined or believed that Soviet conventional superiority in Europe forced the United States to adopt what was essentially a defensive strategy, that is, a strategy of "deterrence" (as conceived by Brodie). Thus, not only do they ignore the revealing and balanced estimates that were produced by America's own military analysts, estimates which American policy makers apparently had no difficulty in accepting and factoring into their strategic calculations. They also fail to notice that the planning for the early use of the atomic bomb was an application of a key element of the modern American military tradition--and the intellectual framework of the planners--to the strategic situation in which the United States found itself at the end of the War. American planning for the early use of the atomic bomb clearly indicates that, in the event of war, America's policy makers and planners were not intending to relinquish the initiative to the Soviet Union. Given America's superiority in offensive capabilities and exclusive possession of the atomic bomb, it would have defied explanation for them to have planned meekly to hand the initiative to the

Soviet Union. It is no wonder, then, that they did not adopt a strategy of “deterrence” as prescribed by Brodie and the later theorists.

The American military analysts’ estimations of comparative Soviet and American strengths and weaknesses were produced at a time when the size of the American stockpile of atomic bombs was still surprisingly small and the numbers of available long-range strategic bombing aircraft quite low—at least when they are judged according to later standards. Nevertheless American capabilities, and intentions, still outstripped those of the Soviet Union. Indeed, the main problem for the military planners of the United States was to match American intentions—in terms of the perceived strategic requirement to develop the capacity to project American military power around the rimlands of the Soviet Union, and the globe—with American offensive capabilities. American capabilities were only limited in comparison to the intentions and objectives of its foreign policy and military strategy. As will be seen in sections 4.7 and 4.8, 1948 marked a turning point for it was from this time that the United States began to acquire an offensive capability that outstripped even its own already-inflated intentions. This notwithstanding, in the following section in will be shown that even early post War US military planning was predicated on the perceived need to maintain, augment where possible and exploit the superior offensive capabilities of the United States.

4.4 Early post War military planning in the United States

The acquisition by the United States during and after World II of sites for forward basing of its strategic bombing force around the rim of the Soviet Union was fully in accord with its strategy for the rimlands and offshore islands of Eurasia. It was also an unambiguous expression of its offensive capabilities and intentions. On this score, Mike Davis observes that,

[In the endless debate about the nuclear numbers game, the Russians have always insisted that it is essential to take into account the unequal geo-military positions of the USSR and the United States. What underlies the claim is the fundamentally asymmetrical character of the overall balance of military power. The United States has forward-based nuclear striking capacity, the Soviet Union has]
none. The USSR is surrounded by thousands of miles of hostile borderlands, from Turkey to Japan, while the United States enjoys the security of three oceans and the largest of all satellite blocs, the Western hemisphere.25

Roy and Zhores Medvedev point out that after the Second World War, "...the war-devastated countries of Western Europe and the Mediterranean basin, who desperately needed American economic aid, opened the door to the creation of US airbases encircling the Soviet Union." They add that "[E]ventually this ring of bases extended from Iceland, Britain, France, Italy, Greece and Turkey to Japan and Alaska." This system of forward bases for United States bombers was constructed in spite of there being "...no Soviet nuclear threat to the United States in the early fifties, since the USSR did not have a single bomber which could cross the ocean."26 The Soviet Union's only long-range bomber, the "...TU-4 was a copy of the B-29 and entered service in 1948." Its replacement was the TU-16 ('Badger') which was a medium bomber that entered into service in 1955. According to Lawrence Freedman, both bombers were produced in "large numbers" and were capable of reaching targets in Western Europe. As he points out, "[F]or attacks across the ocean, however, the USSR lacked the compensations of overseas bases on the periphery of the United States and a capacity for in-flight refuelling."27

This puts into high relief the so-called "bomber and missile gaps" of the mid- and late 50s. These contrived scares, bred in a climate of suspicion and ignorance of the Soviet Union, were based on faulty, incomplete or inconclusive intelligence estimates of Soviet weapons capabilities. Such intelligence estimates were produced at precisely the time when the offensive capabilities of the United States were at their zenith. To a far greater extent than the estimates of Soviet conventional superiority directly after the War, then, these estimates (more like

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26 Roy and Zhores Medvedev, 'The USSR and the Arms Race' in Ibid., p. 160.
27 Freedman, op. cit., p. 64. Freedman also observes, "[I]t was not until 1956/7 that intercontinental bombers (the TU-20 Bear and MYA-4) Bison entered the Soviet inventory. However, if both the aircraft and crew were considered expendable, the TU-4 and TU-16 could reach the continental United States on a one-way mission."
guesses) magnified non-existent Soviet strengths out of all proportion and converted actual and considerable American strengths in weapons numbers and pre-emptive capabilities into relative weaknesses. As will be seen in the following chapter, the bomber and missile gap scares were based largely on Air Force intelligence estimates which were consistently more pessimistic—that is, had a tendency to magnify Soviet and shrink American capabilities—than those provided by the CIA or the other military services.

The same intelligence estimates which suggested the existence of the gaps were also interpreted by Wohlstetter as meaning that the advanced overseas operating bases which would be used by SAC's bombers in the event of war were vulnerable to surprise Soviet attack. Thus, in an inversion of the strategic thinking of the military planners and analysts directly after World War II, according to Wohlstetter (whose thinking was structured in terms of game theory) the overseas bases of the United States did not enhance its offensive capabilities but left it vulnerable to a Soviet first strike. Nevertheless, the idea of vulnerability gained plausibility with defence and foreign policy makers in the climate of rancour, hostility and suspicion occasioned by the gap scares. (Of course, the climate of growing rancour, hostility and suspicion allowed the scares to be raised and given credibility in the first place.) This was so even though the bombers were to be used pre-emptively—in other words, at or before the outbreak of hostilities the bombers would be well on their way to targets in the Soviet Union not idly sitting by on the ground waiting for an enemy attack. Thanks largely to Wohlstetter, the

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28 For an analysis of the bomber and missile gaps see Fred Kaplan, *The Wizards of Armageddon*, Touchstone (Simon & Schuster), New York, 1984, Chapter 10, 'The Missile Gap' pp. 155-173 passim. For more on the "bomber and missile gaps" see John Ranelagh, *The Agency: The Rise and Decline of the CIA*, Sceptre (Hodder and Stoughton), 1987, pp. 172-73 and pp. 322-324. According to Desmond Ball, the "'missile gap' myth" of 1958-1961 was finally "laid to rest" in the second half of 1961 when a then recently launched CIA satellite system began to return more accurate data on Soviet weapons capabilities than that previously available. Says Ball, "[A]t the end of 1961...the Soviet Union had only 4 SS-6 ICBMs [Intercontinental Ballistic Missiles] operational, whereas the US had 54 ICBMs and 5 FBMs [Fleet Ballistic Missile] submarines with 80 Polaris SLBMs [Submarine Launched Ballistic Missiles]. At the end of 1962, the respective figures were 30 Soviet ICBMs as against 200 US ICBMs and 144 US SLBMs. Moreover, the NIE's [National Intelligence Estimates] of late 1961 and late 1962 projected a US superiority of 2-4 to 1 by the mid-1960's." Desmond Ball, 'Strategic Nuclear Targeting', Strategic and Defence Studies Centre, Reference Paper, no. 98, Research School of Pacific Studies, ANU, Canberra, 1981, pp. 27-28. In the Reagan era, such fictional gaps were to be known as "windows of vulnerability"—in fact perpetuating a myth first begun by Wohlstetter in the 1950s.
notion of "vulnerability" and the cognate ideas of "delicate balance of terror" and "stable deterrence" also gained currency and legitimacy amongst the other strategic theorists. "Vulnerability", "delicate balance of terror" and "stable deterrence" were entirely consonant with and fitted snugly into the deterrence paradigm -- and thus became in the mid-1950s and after important working concepts in articulations and explications of the theory of nuclear deterrence. (It should not be forgotten that all these concepts had to some extent been anticipated in the earliest work on atomic strategy of Bernard Brodie written at a time when the deterrence paradigm and the theory of deterrence were in embryonic form.) The point to bear in mind is that these very same concepts were freely used by policy makers and military planners. It was in the Air Force's and SAC's interests, for example, to peddle the idea of vulnerability, for it could be used to support arguments for larger budget appropriations to provide the funds for purchasing more, bigger and better bombers and bombs--that is, to reduce SAC's vulnerability by enhancing its already impressive capability for delivering a devastating pre-emptive strike against the offensive forces of the Soviet Union. As for the policy makers, vulnerability provided them with the rationale for supporting bulging defence budgets, conducting an aggressive anti-Soviet foreign policy, and stifling domestic dissent. Vulnerability was, after all, completely in keeping with the doxa.

While the United States had an acknowledged offensive capability far superior to that of the Soviet Union, fears of Soviet expansionist intentions were being voiced even before the end of World War II and, as reiterated many times before, the warnings grew more shrill throughout the remainder of the 1940s and on into the 1950s. This was also entirely in keeping with the doxa. Melvyn Leffler observes that, "[C]oncern over the consequences of Russian domination of Eurasia helps explain why in July 1945 the joint chiefs decided to oppose a Soviet request for bases in the Dardanelles; why during March and April 1946 they supported a firm stand against Russia in Iran, Turkey, Tripolitania; and why in the summer of 1946 Clark Clifford and George Elsey, two White House aides, argued that Soviet incorporation of any parts of Western Europe, the Middle East, China, or Japan
into a communist orbit was incompatible with American security.”29 Even before the Berlin blockade of 1948 when the militarisation of containment began in earnest, the “...United States was already providing military assistance on a country-by-country basis to the Philippines, Greece, Turkey and certain Latin American countries.”30 The reasons for America’s concern with the countries of the Near and Middle East and eastern Mediterranean “...were Iranian oil, protection of approaches to Saudi Arabian oil and provision for bases and staging areas near the Soviet Union.” “However”, as Yergin points out, “the extension of American power around the Soviet rim could only increase the Soviet sense of danger, leading the Russians to respond in such a way as to increase, rather than decrease, the very range of dangers the United States had sought to forestall.”31 Yergin’s comments about the establishment of a ring of bases around the Soviet Union are reminiscent of the views of Quincy Wright with regard to the self-defeating nature of the policy of containment that were cited in the previous chapter.

During the latter stages of the Second World War, the Joint Chiefs of Staff and other agencies responsible for military planning had concluded that after the War an extensive system of air bases in the Pacific and Atlantic Oceans, the Western Hemisphere, and east and south east Asia would have to be constructed to ensure the security of the United States. As Melvyn Leffler observes, “[B]elieving that atomic weapons would increase the incentive to aggression by enhancing the advantage of surprise, military planners never ceased to extol the utility of

29 Leffler, op. cit., pp. 356-357. The conclusion to the Clifford and Elsey memorandum, titled ‘American Relations with the Soviet Union: A Report to the President by the Special Counsel to the President’, is reprinted in Etzold and Gaddis (eds), Containment, op. cit., pp. 64-71. The authors of the memorandum observe that “[T]he main deterrent to Soviet attack on the United States, or to attack on the areas of the world which are vital to our security, will be the military power of this country.” They point out that, while Soviet vulnerability is limited by its vast territorial extent and the wide distribution of its industries and natural resource deposits, nevertheless “...it is vulnerable to atomic weapons, biological warfare, and long-range air power.” They also argue that “...the United States must be prepared to wage atomic and biological warfare if necessary” because American preparedness “...may be the only powerful deterrent to Soviet aggressive action and in this sense the only sure guaranty (sic)of peace.” Ibid., p. 66

30 Editors’ introduction to NSC 14/1, ‘The Position of the United States with Respect to Providing Military Assistance to Nations of the Non-Soviet World’, July 1, 1948, in Etzold and Gaddis, Containment, op. cit., p. 128

31 Yergin, op. cit., pp. 269 and 270.
forward bases from which American aircraft could seek to intercept attacks against the United States." But such forward bases would also give the United States an augmented offensive capability. The need for an offensive capability was in keeping with the "basic strategic concept" which underlay "all American war plans". These plans "...called for an air offensive against a prospective enemy from overseas bases." Writing in 1958/59, Townsend Hoopes observes that ten years earlier the United States "...had only three base agreements, in addition to simple transit rights at designated airfields in Iceland and Saudi Arabia." However, the bases situation really was not as derelict as Hoopes makes out. Besides firm agreements, the United States had concrete plans in place for the extension of its system of overseas bases around the rim of the Soviet Union. Melvyn Leffler points out that in late 1947 and the beginning of 1948 the Truman Administration responded to "pleas" from the Joint Chiefs of Staff for augmentation of the bases system and for the United States "to acquire bases in closer proximity to the Soviet Union." Accordingly, negotiations were conducted with the British to gain access to bases in the Middle East and an agreement was concluded for the acquisition of air facilities in Libya. Admiral Conolly made a secret deal with the French to secure air and communication rights and to stockpile oil, aviation gas, and ammunition in North Africa. Plans also were discussed for postoccupation bases in Japan, and considerable progress was made in refurbishing and constructing airfields in Turkey. During 1948 the Turks also received one hundred eighty F-47 fighter-bombers, thirty B-26 bombers, and eighty-one C-47 cargo planes. The F-47s and B-26s, capable of reaching the vital Ploesti and Baku oil fields, were more likely to be used to slow down a Soviet advance through Turkey or Iran, thereby affording time to activate a strategic air offensive from prospective bases in the Cairo-Suez area.

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32 Leffler, op. cit., p. 350. For more on the early plans for an overseas system of bases, see Michael Sherry, Preparing for the Next War: American Plans for Postwar Defense, 1941-45, New Haven, 1977, pp. 204-205
33 Leffler, op. cit., p. 351
35 Leffler, op. cit., pp. 372-373. Admiral Richard L. Conolly was commander of American naval forces in the eastern Atlantic and Mediterranean. In May 1947 the Joint Staff Planners noted that the "...Caucasus and Ploesti areas, where so much of the Soviet oil industry is located, can be subjected to air bombardment most effectively from bases along the eastern shore of the
Hoopes claims that the “rapid development of overseas bases” began in 1949. The accelerated pace of development of the bases system outside of Western Europe was spurred by the Korean War and also “...proceeded from the need to accommodate the flight characteristics of the B-47 bomber, which is the jet-propelled successor to the ponderous, propeller-driven B-36”. Actually the first deliveries of the B-36, the world’s first intercontinental bomber, were made in late 1948, but it only became “fully operational” in 1951. However in 1950, “Aviation Week reported in mid-March that the ‘nonstop flight around the world of a Boeing B-50A bomber had strong military and political repercussions’ since it proved the feasibility of mid-air refuelling for medium bombers -- a necessary step for the air force to reach targets deep within Russia.” As Herken remarks, this remarkable flight, and the “air force’s announcement that it had 390 such bombers ‘on order’”, clearly signalled its “commitment to the doctrine of air-atomic attack”. The earlier model B-50 had been in operation since 1948, and was a “longer-range derivative” of the B-29.

Mediterranean or from the Cairo-Suez area. The Moscow area, where bombing would produce the most widespread morale effect, is within B-29 range of bases in the British Isles or the Cairo-Suez area. The vital Ural and Kuzbass areas could be reached from bases in India. For the most effective prosecution of a strategic air campaign, therefore, base areas should be secured in the Near East, the British Isles and India. Base areas selected for the support of strategic air operations should, in so far as possible, serve also for the support of surface operations.” The Joint Staff Planners had noted earlier on that, “[A]pproximately 80 per cent of the entire industry [of the Soviet Union] is within the radius of B-29's operating from bases in the British Isles and the Cairo-Suez area.” Appendix A to JCS1725/1, ‘Strategic Guidance for Industrial Mobilization Planning’, May 1, 1947, excerpted in Etzold and Gaddis, Containment, op. cit., pp. 306-307

36 Hoopes, op. cit., p. 70. The factors which Hoopes identifies to account for the rapid acceleration in the development of overseas bases had, as he acknowledges, no bearing on the “military build-up in the NATO area.”
37 Herken, op. cit., note 12, p. 392
38 Ibid. p. 286. The B-50[A] was a prototype named “Lucky Lady Two” and its “23,452 mile flight took ninety-four hours.” After the flight, Commander of the Strategic Air Command, Curtis Le May, commented “the United States could ‘deliver an atom bomb to any spot on earth where it may be required.’” As for the flight capabilities of the two bombers, “[T]he B-36 had a range of 8,000 miles at 40,000 feet, or 8,800 miles at 30,000 feet. The medium B-47 had a range of 5,600 miles using one in-flight refuelling, or 7,800 miles using two refuellings.” Peter Pringle and William Arkin, SIOF: Nuclear War from the Inside, Sphere Books, London, 1983, p. 32. Le May is quoted on the same page.
In spite of the development of the intercontinental bomber, the need for overseas air bases remained critical. The intermediate range aircraft like the B-29 had to be based at fields within striking distance of the Soviet Union or else be equipped with an in-flight refuelling capacity. As for the B-50s and the B-47s, they too required mid-air refuelling to allow them to reach the outer limit of their quoted range, and the refuelling aircraft required basing at sites along the flight paths of the bombing aircraft. Otherwise they also needed to be based at sites within striking range of Soviet targets. Those aircraft based within range of the Soviet Union obviously also needed accessible bases to return to after they had flown their bombing missions! It is no surprise, then, as Hoopes notes that the "...requirements of our strategic air forces have provided the greatest single impetus to the development and expansion of the base system". Lawrence Freedman claims that the Air Force’s in-flight refuelling capability was never developed to the extent that it was able to cut completely its dependence on bases in Europe. These bases put the Air Force’s bombers within range of their targets within the Soviet Union. While the Air Force did acquire a bomber (the B-47) that was capable of considerably higher speeds than either the B-49 or B-50, its range was only intermediate and thus European bases remained important to the viability of American military and nuclear strategy. Remarks Freedman,

[In 1949, the first deliveries were made of a new medium-range bomber (the B-46) (sic) which could fly at much higher speeds than the B-29 and B-50 and so was more able to penetrate air defences. This aircraft became the mainstay of SAC for the first half of the 1950s. The first long-range (over 8000 miles) bombers was the B-36, first introduced in 1948. This was not a popular plane with the USAF [United States Air Force] because of the altitude at which it flew, and it was acquired only in small numbers. It was not until the B-52 became operational in

39 Hoopes, op. cit., p. 69. According to the 1954 SAC briefing given by SAC’s Major General Old to the representatives of all services at SAC Headquarters that was cited above SAC then had "...31 operational and staging bases for 2,005 aircraft in the U.S. and overseas. In 1950 SAC had 18 such bases for 850 aircraft. Later General Le May remarked that he will be happier when he has a few more bases." Memorandum ‘Op-36C/jm’, op. cit. p. 22. Apparently "there were 29 active continental U.S. bases and 10 active overseas bases (in North Africa, Puerto Rico, and England) available to SAC in December 1953." Office of the Historian, Headquarters, Strategic Air Command, Development of Strategic Air Command, 1946-1976, Omaha Nebraska, 1976, p. 36 cited by Rosenberg, ‘A Smoking Ruin’, note 9, p. 22.
1955 that a satisfactory long-range bomber was available.40

The numbers and locations of bases, and the numbers, capacities and ranges of bombers were all critically important factors for they bore heavily on the ability of the USAF, more specifically the Strategic Air Command, to put into operation the strategic bombing offensives it planned to conduct against the Soviet Union in the event of war. As seen earlier, the Strategic Air Command was the United States' strategic nuclear striking force. As such, it occupied a unique and privileged position in the bureaucratic hierarchy of nuclear war planning. Curtis Le May, its Commanding General, was a skilled bureaucratic in-fighter who helped the Strategic Air Command attain its privileged position and worked single-mindedly to ensure that its position was not eroded. This became more difficult at the end of the 1950s and early 1960s when the first ballistic missile submarines became operational (ballistic missile submarines became the mainstay of American nuclear strategy). However, that is another story.

The following two sections deal with the Strategic Air Command and its place in the American war planning bureaucracy. It is important to understand the structure of the American war planning bureaucracy, and SAC's place in it. The analysis of the war planning bureaucracy will reveal how, in the overall process of war planning, tasks were fragmented and responsibilities compartmentalised. As was the case with the bureaucratic organisation of the strategic bombing campaigns conducted during the Second World War, this increased the distance between the planners and the would-be victims of the destruction they planned. Fragmentation of the war planning process also had the effect of severing the military means from the political objectives of strategy. Indeed, military means dictated military ends which all but eliminated political objectives. Under these circumstances, war planning was reduced to little more than an exercise in assigning sufficient numbers of aeroplanes and bombs to targets (or, "target systems"") which had been identified in the target selection process and in ensuring

40 Freedman, op. cit., p. 64. It was not the "B-46" which became available in 1949, but the B-47. This is, no doubt, a typographical error. According to Pringle and Arkin, "[T]he first B-52 squadron was not operational until 1956." op. cit., p. 32.
that there were adequate numbers of appropriately located, sized and serviced bases for the bombers. Obviously, this was particularly true of the war planning undertaken by the Strategic Air Command.

4.5 The Strategic Air Command (SAC), operational war planning and the intellectual framework of pre-emption

While the Strategic Air Command came into existence in March 1946, it "...was largely neglected through 1948 as air leaders worked to establish a separate Air Force within a unified National Military Establishment". In October 1948 Curtis Le May was appointed the Commanding General of SAC. He, like other post War "air planners", had become devotees of the doctrine of strategic bombing during the Second World War. Indeed, it was Le May who, in the war against Japan, had perfected the 'science' of the fire-bombing of cities in his role as commander of the U.S. Army Air Forces' XXI Bomber Command, which was part of the Twentieth Air Force. Le May and his peers were absolutely "...convinced of the efficacy of strategic bombing, and believed that the Air Force must serve as the nation's new first line of defense."41

The Strategic Air Command did not suffer as a result of neglect. As it developed, and particularly after Le May was appointed its Commanding General, it asserted its independence of the Air Force and of the other services. SAC's privileged and unique position in U.S. "operational war planning" gave it unequalled influence over American nuclear war plans. SAC "was both a separate major Air Force administrative command under the Air Force Chief of Staff and a specified command within the JCS national unified and specified command system." Not only did SAC have "primary responsibility for carrying out the time-urgent massive nuclear strikes on the Soviet homeland" which were called for by JCS war plans, in addition it annually submitted its own war plans to the JCS for "review and approval." Given these bureaucratic and administrative advantages, the other services, including the Air Force itself, could not easily compete with

SAC in the process of compiling target lists and preparing war plans. Thus SAC was the most powerful player at the operational planning level of the nuclear strategy making bureaucracy. There were however a number of levels above SAC and it is important to understand how the organisations and agencies on the different levels interacted with one another in the making of nuclear strategy. As suggested above, because the making of nuclear strategy was a fragmented and compartmentalised process there were no clear or certain lines of authority and responsibility. It should come as no surprise, then, that the military means were sharply severed from the political objectives of strategy, that military ends displaced political objectives, and that means were allowed to dictate ends. The strategy making process was one from which the strategic theorists were excluded. Bernard Brodie was certainly aware of the existence and extent of “the gap” which divided the strategic theorists from the military planners (and the policy makers).

In the last article Brodie was ever to publish, he frankly and publicly acknowledged that theorising about nuclear weapons and deterrence was at some remove from the actual processes of nuclear weapons policy formulation and strategy development. According to Brodie, “[V]irtually all the basic ideas and philosophies about nuclear weapons and their use have been generated by civilians working quite independently of the military, even though some resided in institutions like Rand which were largely supported by one or another of the services.” Brodie concedes that these civilians were kept at arm’s length by the services, and therefore left in a position where they had little impact on the process of preparing and planning the use of nuclear weapons, when he observes that “...the military have been, with no significant exceptions, strictly customers, naturally showing preference for some ideas over others but hardly otherwise affecting the flow of those ideas.” As far as the military services are concerned, he says, “deterrence comes as the by-product, not the central theme” of the “strategic structure” of which they are a part and in which they operate.

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42 Ibid., p. 10
The extent to which the deterrence paradigm and the theory of deterrence diverged from American nuclear strategy, the intellectual framework of pre-emption and the modern American military tradition, is neatly summarised by a military writer cited by Brodie: ""The obvious difficulty with deterrent theory...is the yielding of the initiative to the adversary."

For this writer initiative was the "sine qua non of success". This writer's views seem to be entirely representative of strategic thinking within the military. As seen above, for example, Curtis Le May believed that striking the first blow was part of an American military tradition that stretched right back to the War of 1812. Here, then, is one very important reason that the military services hardly affected the flow of strategic ideas and concepts—deterrence as the strategic theorists understood it was not their primary concern for they were opposed in principle to relinquishing the initiative to the enemy. The military planners understood deterrence to be the by-product, largely unintended, of the planning for the early, and later the pre-emptive, use of nuclear weapons. Understood in this way, deterrence certainly did not involve relinquishing the initiative to the enemy. While nuclear weapons policy making and military planning remained largely independent of the civilian strategists, it cannot be said that the latter remained independent either of the services which directly funded their research or of the over-arching strategic structure of which the services were a part. More will be said on this in the next two chapters where the work of Bernard Brodie, Albert Wohlstetter and Thomas Schelling will be studied.

4.6 The American war planning bureaucracy and SAC's place in it

David Alan Rosenberg has identified the key institutional participants in the process of the development of American nuclear strategy. Preparing and planning for the use of nuclear weapons is a process that is "for the most part" undertaken by military officers and civilian bureaucrats who work under the direction and in conjunction with the "...elected and appointed officials who are in a position to order their use." Nuclear strategy, says Rosenberg, should be treated "as a

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governmental process rather than an intellectual exercise”. The theoretical constructs devised by the strategic theorists “may have little real impact” on actual strategy, which consists of “concrete decisions regarding war plans, budgets, forces, and deployments” rather than “concepts or even policy statements”. The failure of the policy makers and military planners to define “deterrence”, and the complete irrelevance of the strategic theorists’ concept to the practical concerns of the policy makers and military planners, certainly prevented the constructs of strategic theorists from having any real impact. However, as will be seen below and in the following chapter, the importance and influence of policy statements could be considerably greater than Rosenberg acknowledges.

The president and his key advisors in the National Security Council and the Departments of State and Defense are responsible for the development of “high policy” which theoretically “…establishes the context for strategy making at all the subsidiary levels.” Thus, high policy was supposed to provide guidance for the making of actual policy at the lower levels. Ultimately, the decision to use nuclear weapons constitutionally and statutorily rests with the executive authority—devolution of authority and delegation of responsibility notwithstanding. At the highest level, policy is shaped not only in accordance with “strategic and political interests, objectives and ideas”, but also with an eye to “pragmatic political and economic considerations.” In the 1945-1960 period, it was the National Security Council (NSC) that with Presidential authority had responsibility for such matters of high policy as the setting of “national security objectives”, and the promulgation of “policy guidance” with respect to the role of nuclear weapons in foreign policy and military strategy. The key members of the National Security Council were the Secretaries of State and Defense and the Chairman of the Atomic Energy Commission. These officials took a leading role in discussions and decisions surrounding issues like the “…the expansion of nuclear production, the deployment of nuclear weapons in the U.S. and abroad, and the sharing of

46 Ibid.
47 Ibid.
nuclear weapons information with allies.' Policy on the use of nuclear weapons contained in the “classified statements” produced at this level often had a longer shelf-life than the Administration that was responsible for it and thus could well be a factor in shaping the development of nuclear strategy over the terms of subsequent administrations. A number of these classified statements will be examined in sections 4.8 and 4.9, for they reveal the sort of guidance which the Joint Chiefs of Staff (JCS) and SAC received from the high policy makers and the context in which it was able to plan for the pre-emptive use of nuclear weapons. They also provide the basis for an understanding of an important distinction, that between actual/employment and stated/declaratory nuclear weapons policy. While this distinction will be taken up in the final section of this chapter, it will be considered at much greater length in the following chapter. It is important to realise, however, that both actual and declaratory policy were made (or made up) at this level.

At the next level down in the nuclear strategy hierarchy “...were the military planners who attempted to translate high policy guidance into strategic plans and concepts.” Beginning in 1948, the Joint Chiefs of Staff generally produced strategic plans on an annual basis. Before 1952, the plans which directly addressed the use of nuclear weapons were the Joint Outline Emergency War Plan which “prescribed courses of action for immediately available forces in a global war during the current fiscal year” and the Joint Mid-Range War Plan which “attempted to set force requirements over a four to six year period.” In 1952 these became respectively the Joint Strategic Capabilities Plan (JSCP) and the Joint Strategic Objectives Plan (JSOP). Annex C to the JSCP laid down “[T]argeting and damage criteria for the use of nuclear weapons.” Rosenberg notes that strategic planning not only involved the Joint Chiefs but also the individual services whose “military philosophies” particularly with respect to “nuclear targeting strategy” (counterforce or countervalue) did not always fully accord with

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49 Rosenberg, 'Theory vs. Practice', op. cit., p. 20
50 Rosenberg, 'Origins of Overkill', op. cit., p. 9
one another. Up until the mid-1950s, the "Air Intelligence Production Division (later Air Targets Division) of the Air Force Directorate of Intelligence prepared the target lists" according to the guidance provided in the Joint Chiefs' capabilities and objectives plans and Annex C to the former.

According to Rosenberg, it was at the strategic planning level that "strategic theory had its greatest impact" even if this was more "diffuse" than "direct". While "[S]ome of the most innovative strategic analyses of the 1950s and 1960s were produced by the Rand Corporation under contract to the Air Force" it was not until 1961, under the tutelage of Secretary of Defense Robert McNamara, that a select few strategic theorists began to occupy positions of "significant civilian or military responsibility" within the Office of the Secretary of Defense (OSD), the attached Office of Systems Analysis, the National Security Council, and in the individual military services. Says Rosenberg, "[O]nly under McNamara did defense intellectuals move into positions of real power and influence in those bodies, where they attempted to effect real changes at the strategic planning level through analysis directed at programming." The programming level of nuclear strategy was introduced by McNamara as part of his effort to restructure and transform the role of the OSD. Programming involved the "...preparation of a coordinated annual Defense Department budget and a five-year weapons procurement plan, as well as periodic statements of nuclear policy guidance." The newly transformed OSD was thus supposed to exert civilian control over the strategic planning level of nuclear strategy "...by setting limits on the forces procured to implement those plans."

51 Rosenberg, 'Theory vs. Practice', op. cit., pp. 20-21. "'Countervalue' strikes are those targeted on urban industrial centres" and "'[C]ounterforce' targets are military targets and include, but are not limited to, the enemy's nuclear weapons." Philip Bobbitt, Democracy and Deterrence: The History and Future of Nuclear Strategy, MacMillan Press, London & Basingstoke, 1988, notes 1 and 2, p. 288
52 'Origins of Overkill', op. cit., p. 9
53 'Theory vs. Practice', op. cit., p. 21
54 ibid., p. 20. McNamara came to the post of Secretary of Defense from the Ford Motor Company, where he had been made President just before being appointed. While his management practices had been learnt and honed at Ford during the 1950s, his war time experience had also been important. Fred Kaplan notes that during the Second World War, McNamara had "...worked in the Statistical Control Office of the Army Air Corps as part of an operations-research group from the Harvard Business School that applied new management theories and techniques to make
Operational planning was the lowest but by no means the least level of nuclear strategy. As seen above, up until the early 1960s the Strategic Air Command (SAC) had effective control over operational planning. The operational planning of nuclear strategy was above all a "pragmatic exercise" in solving the problem of how to meet the objectives contained in the JSCP. SAC thus had primary responsibility for preparing "...actual plans for war-time operations and employment, including target specification, weapons and delivery systems to be used, weapons effects, and routes to and times over targets." The intelligence estimates provided chiefly by the CIA and air intelligence gathered by the Air Force and SAC were important at the operational planning level of nuclear strategy. The "targeting estimates" produced by Air Force "analysts" working in Washington and Omaha were less bureaucratically contentious than those produced by other agencies. In any case, "[T]he JCS and the services had neither the time nor manpower to challenge such estimates in detail, and the lists grew unchecked as additional intelligence suggested new possibilities, thus boosting overall estimates of weapons and force level requirements." Rosenberg comments that,

[I]deally, all four levels of strategy making ["high", strategic planning, programming and operational planning] should operate in concert, with the goals established at the top guiding activities at each subsidiary level. In fact, such coordination and integration have never been fully achieved. Each level of strategy making responds to a different set of needs and constraints, producing contradictions and disjunctions and a striking divergence between stated policy and operational planning.


55 'Origins of Overkill', *op. cit.*, p. 10 and Rosenberg, 'Theory vs. Practice', *op. cit.*, p. 21. Rosenberg notes that in 1960 operational planning was further centralised "...with the creation of the Joint Strategic Target Planning Staff, under the commander in chief of SAC, which was directed to prepare a National Strategic Target List and a Single Integrated Operational Plan (SIOP) for U.S. nuclear forces." *Ibid.*

56 Rosenberg, '*Origins of Overkill', *op. cit.*, p. 11

57 'Theory vs. Practice', *op. cit.*, p. 21; emphasis added
Rosenberg may be correct in claiming that there were inconsistencies and divergences between stated policy and operational planning, inconsistencies and divergences that were occasioned by the fragmented and compartmentalised nature of the nuclear war planning bureaucracy and the competition for resources and influence between the various agencies involved. However, he does not mention that, for the most part, the inconsistencies and divergences were trivial and more apparent than real (after all, all the policy and planning agencies worked within the same intellectual framework). The apparent divergences and disjunctions were largely a by-product of the higher policy makers' silence on use, not, as Rosenberg would have it, inter-agency competition and the fragmentation and compartmentalisation to which it gave rise. As will be seen in section 4.8, the silence on use actually amounted to a refusal to give an official definition of "deterrence", a refusal, moreover, which allowed the theorists' conception of "deterrence" to stand in the stead of an official conception and definition and thus to give a completely distorted picture of American nuclear strategy. Nevertheless, American policy makers used the apparent divergences and disjunctions produced by inter-agency competition, hierarchisation and bureaucratisation to the strategic advantage of the United States, for they introduced an element of uncertainty and unpredictability into American nuclear weapons policy and strategy which was manipulated in such a way as to put the Soviet Union very much on the back foot and to force its leadership into being cautious and unadventurous. Put simply, the leaders of the Soviet Union could never be sure if pre-emption or "deterrence" based on the protection of massive nuclear retaliatory capabilities was the essence of American nuclear war planning. They could not even be sure of the meaning of "deterrence". This point will become clearer below and in the next chapter.

The large, unwieldy and compartmentalised nuclear war planning bureaucracy also helped to ensure that the means and the ends of nuclear strategy were sharply disjoined from each other. As seen above, the disjunction between the military means and political ends of nuclear strategy had the effect of replacing the latter with the purely military end of reducing the Soviet Union to a "smoking, radiating ruin", an end that was increasingly dictated by the relentless accumulation of the
means of waging nuclear warfare. This end of strategy was unavoidable given that the inexorably expanding offensive nuclear capabilities of the United States really foreclosed any other option. At every level, the planning and preparation for nuclear war was a highly technocratic exercise in which there was a conspicuous failure to lay down clear, politically possible and morally justifiable objectives. Without such objectives, there was no brake on the nuclear accumulation process, for the military end of wholesale destruction imposed no effective limits or moderating influence on it. Once acquired, uses (targets) for nuclear weapons had to be found and planned for. This is how means dictated ends.

4.7 The nuclear strategy of the United States: SAC’s planned strategic air offensive

Some idea of the nature of the strategic air offensive to be carried out by SAC can be gained by studying a number of the American plans for war with the Soviet Union that were drafted during the late 1940s. ‘Joint Outline Emergency War Plan (HALFMOON)’, for example, “...was approved for planning [by the Joint Chiefs of Staff (JCS)] on May 19, 1948, and, under the name FLEETWOOD, distributed to commands on September 1, 1948, as a guide in preparing detailed operational plans (later still the plan was renamed DOUBLESTAR).”58 (It was not uncommon for war plans to go through several incarnations and to be assigned a different name for each incarnation.) The ‘Brief’ of HALFMOON planned for the “...initiation [“as early as practicable”] and sustaining of an air offensive against vital elements of the Soviet war-making capacity and the regaining of Middle East oil to assure availability of these resources to the Allies during later phases.” Based on the assumption that the approval for the use of atomic weapons had been granted, the ‘Brief’ calls for the deployment of “available units” of the Strategic Air Command to bases in England (or Iceland as an alternative) and the Khartoum-Cairo-Suez area. From these bases, and Okinawa, SAC would conduct

58 Editors’ Introduction, JCS 1844/13, ‘Brief of Short Range Emergency War Plan (HALFMOON)’, July 21, 1948 in Etzold and Gaddis (eds.), Containment, op. cit., p. 315. HALFMOON was also at one time known as SIZZLE, and in the December, 1948 version called for the dropping of 133 atomic bombs (from a stockpile of 150 such weapons) on 70 cities in a “hypothetical attack” during 1952. Michio Kaku and Daniel Axelrod, To Win a Nuclear War: the Pentagon’s Secret War Plans, Zed Books, London, 1987, p. x.
operations "...utilizing available atomic bombs against selected targets." While
the atomic campaign was proceeding, available SAC units "...would operate
against remaining elements of the Soviet petroleum industry and submarine
operating facilities and conduct extensive mining operations in Soviet ports and
waterways." After the early phases of the war, the air offensive against the Soviet
war-making capacity would be "intensified and sustained".59

The JCS approved the 'Joint Emergency War Plan (OFFTACKLE)' on December
8, 1948 (it was later renamed SHAKEDOWN and then CROSSPIECE). In the
words of the 'Brief' of the war plan, the "Basic Assumption" behind
OFFTACKLE was that "[O]n 1 July 1949, war has been forced upon the United
States by acts of aggression by the USSR and/or her satellites." OFFTACKLE'S
mission was to bring about the "...military defeat of the USSR and her satellites to
a degree that will bring about a political and military situation which will permit
the United States to accomplish the national objectives outlined in NSC 20/4 (JCS
1903/3)." (NSC 20/4 will be analysed below.) The "Over-all Strategic Concept"
of OFFTACKLE was, with the help of America's allies, "to impose the war
objectives of the United States upon the USSR". This would be achieved by
"conducting a strategic offensive in Western Eurasia and a strategic defensive in
the Far East" with a view to "destroying the Soviet will and capacity to resist".
With regard to the strategic air offensive to be conducted against the Soviet
Union, OFFTACKLE was quite blunt: "This operation requires immediate
utilization of the forces available as of D-day for a maximum exploitation of the
atomic bomb".60 However, the Air Force (and no doubt SAC) was at odds with
the other services over the allocation of resources and missions for the air
offensive. As a result the war plan, particularly that part dealing with the strategic
air offensive, went through several incarnations (thus its various names). In the
November 1949 version, the passage describing the air offensive read:

A strategic air offensive with atomic and conventional bombs will be initiated at the earliest possible date

59 'Brief' of HALFM00N, reprinted in Etzold and Gaddis, Containment, op. cit., pp. 320, 321,
and 322.
60 JSPC 877/59, 'Brief of Joint Outline Emergency War Plan (OFFTACKLE), May 26, 1949
excerpted in Ibid., pp. 325, 328, 331.
subsequent to the outbreak of hostilities. This offensive will be aimed at vital elements of the Soviet war-making capacity and at the retardation of Soviet advances in western Eurasia. Operational and logistical support priorities will be established to permit the earliest initiation of this effort.61

The demands of the Berlin airlift of 1948/49 (the myths and realities surrounding which will be considered in the next section) raised questions as to whether the United States Air Force, and SAC, would be able to continue the airlift and at the same time conduct a strategic air offensive if so required. As Etzold and Gaddis report, “[I]n answering this question, the Chief of Staff of the Air Force explicated the assumptions and principal features of ‘Strategic Air Command Emergency War Plan [EWP] 1-49’’. ‘SAC EWP 1-49’ did receive JCS endorsement thus making it the first “atomic annex of an emergency war plan [TROJAN, December 1948/January 1949]” to be approved at this level.62 SAC EWP 1-49, which was prepared by Le May immediately after he took over the command of SAC in October 1948, called for SAC’s capability to be increased in order that it would be able to “deliver” the entire atomic stockpile in a “single, massive attack”. The destruction of Soviet urban-industrial concentrations was accorded highest priority, with the Soviet transportation system and petroleum and electric power industries being secondary targets.63

61 JCS 1844/46, 8 November 1949 cited in Ibid., note 16, p. 331. From a stockpile of 250 bombs, the October, 1949 version of OFFTACKLE called for the dropping of 220 bombs on 104 cities in a “hypothetical attack” in 1952. Kaku and Axelrod, op. cit., p. x


63 Rosenberg, ‘Hydrogen Bomb Decision’, op. cit., pp. 70 and 71. Rosenberg observes (p. 70) that, “When combined with JCS targeting requirements, as spelled out in war plan “Trojan,” the SAC plan [EWP 1-49] entailed strikes on seventy Soviet urban target areas with 133 atomic bombs within thirty days.”
The JCS’s ‘Evaluation of Current Strategic Air Offensive Plans’ assumed that war would begin before 1 April, 1949 and that “[A]tonuc bombs will be used to the extent determined to be practicable and desirable.” After consideration of a number of factors such as the numbers of available atomic bombs, estimations of bombing accuracy, and the like -- and echoing SAC EWP 1-49 -- the “highest priority target system” was determined to be the “major Soviet urban-industrial concentrations” the destruction of which would “...so cripple the Soviet industrial and control centers as to reduce drastically the offensive and defensive power of their armed forces.” The ‘Evaluation’ concluded that, even if the strategic air offensive was accorded “first priority” and was delivered as planned, the U.S. Air Force had sufficient resources to enable the Berlin air lift to be continued at its “contemplated level”.64

In the wake of the Soviet atomic test in 1949, the U.S. Joint Chiefs of Staff established a set of three “targeting categories” and ranked in order of importance and precedence the target systems to be destroyed in an American strategic air offensive against the Soviet Union. These targeting categories became part of US war plans in the early 1950s. The JCS gave top priority to the “blunting of Soviet capability to deliver an atomic offensive against the United States and its allies [this mission was code-named BRAVO]”. Given second priority was the “retardation of Soviet advances into Western Eurasia” (the ROMEO mission) and third was the “disruption of the vital elements of the Soviet war-making capacity” (the DELTA mission). By “Soviet war-making capacity” was meant the “Soviet urban industrial base” which, as Rosenberg points out “...had been the focus of U.S. planning estimates and approved war plans since 1945.” He also notes that estimates of the number of nuclear weapons needed for the BRAVO mission had been produced even before the Soviet atomic test.65 In giving the highest priority

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65 Rosenberg, ‘Theory vs. Practice’ *op. cit.*, p. 20 and Rosenberg, ‘Smoking Ruin’, *op. cit.*, pp. 9 and 10. As noted, the three targeting categories, and their associated code names, were introduced after the Soviet atomic test. However, it was also noted that the JCS has been producing estimates of the number of weapons needed to perform the BRAVO or blunting mission prior to the test. The JCS had also been producing strategic plans with what would be known as the blunting mission in mind. The DROPSHOT strategic plan (promulgated in late 1949 but prepared earlier)
to the BRAVO mission the JCS "...in effect chose to prepare the United States' nuclear offensive forces for a preemptive attack on enemy offensive forces, if possible, *in the event of impending hostilities.*"66 The high policy makers sanctioned the preparations for a pre-emptive nuclear attack virtually by default. Truman did not directly authorise a nuclear strategy in which a pre-emptive counterforce attack had the highest priority. Nevertheless, comments Rosenberg,

...the Joint Chiefs were acting in accordance with their understanding of their responsibility to defend the nation. If a preemptive strike was the only means of accomplishing that objective, preemption was an option unless the president specifically directed otherwise. Truman did not so direct -- nor, it appears, have any of his successors. Thus, while deterrence emerged as the central concept in U.S. strategic theory by the 1960s, preemptive counterforce targeting has remained a permanent option in U.S. strategic planning, and by weight of numbers and

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66 Rosenberg, 'Theory vs. Practice', p. 20; emphasis added. In January 1950, a couple of weeks before Truman approved the development of the hydrogen bomb, the Joint Chiefs of Staff had considered a number of questions that might be asked by policy makers about the new weapon. One of the questions which the Joint Chiefs asked themselves was "[I]f the value of the super [hydrogen] bomb is regarded as only that of retaliation, would the atomic bomb also be relegated to that category?" Their answer: "If any type of atomic weapon is to be used for retaliation only, then it must be assumed that all types of atomic weapons will be relegated to this category. However, *the Joint Chiefs of Staff cannot accept as a premise that either the super bomb or the atomic bomb is valuable only as a weapon of retaliation.*" Earlier on, the Joint Chiefs had observed that the super bomb "...would improve our defense in its broadest sense, as a potential offensive weapon, a possible deterrent to war, a potential retaliatory weapon, as well as a defensive weapon against enemy forces." JCS comments on a report to the Secretary of Defense by the General Advisory Committee to the Atomic Energy Commission on the possible development of nuclear fusion, January 13, 1950, excerpted in Etzold and Gaddis (eds.), *Containment*, op. cit., p. 370 and 369-370; emphasis added
types of targets has shaped the 35 years of internal debates on U.S. nuclear strategy.67

Rosenberg’s implicit point is a very important one: because the “central concept” of strategic theory is ‘deterrence’, the theory has remained aloof from the nuclear weapons policy making process in which the pre-emptive and counterforce use of nuclear weapons has dominated. (It should be pointed out that, while “deterrence” lay at the very heart of the deterrence paradigm, “deterrence” was only a subsidiary and peripheral concept in the intellectual framework of the policy makers and military planners.) As will be seen below, the non-decision on pre-emptive counterforce targeting was well in accordance with the decision to make no decision on the use of nuclear weapons which was contained in a number of classified statements on the use of nuclear weapons produced and adopted at the highest level of policy in the late 1940s and which remained current for most of the 1950s. The decision to make no decision on the use of nuclear weapons was explicitly designed to increase the uncertainty and unpredictability of American strategy—to bewilder the leaders of the Soviet Union, not only on the question of whether pre-emption or “deterrence” was at the core of American war planning, but also on the exact meaning of “deterrence”. As noted above, this decision amounted in effect to a refusal on the part of the policy makers and military planners to explain precisely what they meant by “deterrence”. Thus, there was no official acknowledgment of the fact that the policy makers’ and planners’

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67 Rosenberg, ‘Theory versus Practice’, op. cit., emphasis added. Rosenberg points out that, in the early 1960s, a number of factors, such as “increasingly sophisticated U.S. intelligence and [the] small and relatively primitive nature of Soviet strategic forces” would have made it possible for the Americans “…to identify, and destroy, any Soviet forces being readied for a second strike.” That is, such factors allowed the United States to pursue a second-strike counterforce strategy. But, as Rosenberg points out, “…these same factors could also be used to achieve a preemptive first strike, and any forces suitable for second-strike missions had considerable first-strike potential as well. Despite its public as well as its official, classified renunciation of a first-strike option, the Kennedy administration had in fact initiated procurement of an all-new strategic missile force that would preserve that capability for some time to come.”67 Similarly, as Jerry Sanders observes, the critics of Secretary of Defense James Schlesinger’s counterforce strategy pointed out that “…in the case of the weaponry and targeting doctrine required to carry out a counterforce strategy, the power to coerce by means of a first strike of one’s own is indistinguishable from the power to resist by defending against such an effort by an adversary.” Jerry W. Sanders, Peddlers of Crisis: The Committee on the Present Danger and the Politics of Containment, Pluto Press, London, 1983, p. 170. Schlesinger was appointed Secretary of Defense by Nixon in July 1973 and sacked by Gerald Ford in November 1976 (just before Ford himself lost office).
conception of “deterrence” was completely at variance with the theorists’ conception. The theorists’ conception was allowed to take the place of an officially sanctioned conception, but there was no official admission that this gave a highly misleading impression of the actual thrust of American nuclear strategy. Rosenberg completely misses this point.

The process of compiling and preparing war plans was a fairly routine military-bureaucratic procedure that was predicated on the availability, practicability, effectiveness and early/pre-emptive utility of atomic weapons. Little if any distinction seems to have been drawn between such weapons and conventional high explosive and incendiary bombs. The planning agencies (NSC, JCS, USAF, SAC, etc.) took it for granted that nuclear weapons would be used early and to the maximum extent possible in the event of war with the Soviet Union. The conventional bombing campaign would be an adjunct to the strategic offensive. As the size of the atomic stockpile grew, and the numbers and performance of bombing aircraft increased, so did the contemplated strategic air offensive grow in magnitude and scope. The need for a conventional bombing campaign declined accordingly. As more nuclear weapons became available so was the number of targets to be destroyed in the air offensive increased. The growth in size of the atomic stockpile and of the bombing force will be considered in the next section in the light of the myths (and realities) that had surrounded atomic weapons and their effectiveness since their inception. These myths played an important part in shaping the military ends of the strategy of nuclear deterrence.

4.8 High nuclear weapons policy and the strategy of nuclear deterrence

In November 1948 the National Security Council approved a “...national policy of deterrence that required an emphasis on American possession of the atomic bomb.”68 This was the “deterrence” of the policy makers’ and military planners’ intellectual framework. According to Etzold and Gaddis, NSC 20/4 (which Truman had formally endorsed on November 24, 1948), “...remained the definitive statement of United States policy toward the Soviet Union until April

68 Rosenberg, ‘Hydrogen Bomb Decision’, op. cit., p. 75
1950, when NSC 68 appeared." Moreover, observes Rosenberg, "[T]he very
general guidance contained in NSC 20/4 was all the military would receive under
the Truman Administration, and it prefaced all war plans through 1954."
However, this document was preceded by NSC 30 which Truman had approved
on September 16, 1948. It appears that NSC 30 was even more of a landmark
document than NSC 20/4 for, as Rosenberg remarks it "...remained the sole
general NSC statement on U.S. policy for atomic warfare approved by the
President through at least 1959." For this reason, NSC 30 will be considered
before NSC 20/4 is examined in detail.

NSC 30 was written in response to the Soviet blockade of Berlin and the
communist *coup* in Czechoslovakia in February 1948. The document, which was
initiated the Air Force, was actually prepared by the National Security Council in
consultation with the Departments of State, Army, Navy, Air Force, the National
Security Resources Board and the CIA. It expresses the view that "[T]he United
States has nothing presently to gain, commensurable with the risk of raising the
question, in either a well-defined or an equivocal decision that atomic weapons
would be used in the event of war." A decision on the use of atomic weapons was
not required, according to NSC 30's authors, because "...the military can and will,
in its absence, plan to exploit every capability in the form of men, materials,
resources and science this country has to offer." In their conclusion, the authors
stress again that "...in the event of hostilities, the National Military Establishment
must be ready to utilize promptly and effectively all appropriate means available,
*including atomic weapons*, in the interest of national security and must therefore
plan accordingly." They also stipulate that "[T]he decision as to the employment
of atomic weapons in the event of war is to be made by the Chief Executive when
he considers such decision to be required" and reiterate their view that "at the

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69 Editors' introduction to NSC 20/4, ‘U.S. Objectives with Respect to the USSR to Counter
Soviet Threats to U.S. Security’, November 23 1948 reprinted in Etzold and Gaddis (eds.),
*Containment*, op. cit., p. 203.
present time” no decision was required either on the use of atomic weapons or on the time and circumstances in which they might be used.\textsuperscript{71}

NSC 30 is a prime example of decision making by default. Working on the very well-founded assumption that, in the event of war, the armed forces would use nuclear weapons as and when their commanders saw fit, the document’s authors felt that they did not have to make a decision on use. In effect, they made a decision to make no decision. Nevertheless, the authors did make it clear that they assumed, indeed expected, that all available means would be used in the event of war. Here there are parallels with the non-decision on pre-emption. The decision to make no decision was made in the almost certain knowledge that nuclear weapons would be used early and to the maximum extent possible. Similarly, the non-decision on pre-emption was made in the equally certain knowledge that the JCS and SAC were planning for the pre-emptive uses of nuclear weapons. Obviously, therefore, no decision was required of the high policy makers. It will be argued in the following chapter that the decision to make no decision and the non-decision were fundamental elements of the declaratory nuclear weapons policy of the United States for they were intended to maximise the uncertainty and unpredictability of the strategic environment within which the Soviet Union operated. It will also be seen there that the refusal to renounce first-use, to which Kennan had bitterly objected, was designed to bring about exactly the same effect. The uncertainty and unpredictability which confronted the Soviet Union was also heightened by the confusion which surrounded the meaning of “deterrence”.

NSC 20/4’s analysis of Soviet intentions and capabilities is more detailed and in-depth than that which appears in NSC 30. NSC 20/4, prepared at the behest of Secretary of Defense Forrestal, also weighs up American capabilities in the light of those attributed to the Soviet Union. The document notes that “[T]he USSR, while not capable of sustained and decisive direct military attack against U.S. territory or the Western Hemisphere is capable of serious submarine warfare and of a limited number of one-way bomber sorties” However “by no later than

1955”, its authors grimly conclude, it “...will probably be capable of serious air attacks against the United States with atomic, biological and chemical weapons, of more extensive submarine operations...and of airborne operations to seize advance bases.” But, “as long as effective U.S. forces remained in being” the Soviet Union would not even then be able to launch a successful invasion of the United States.\(^\text{72}\)

The authors of NSC 20/4 quote unspecified intelligence estimates to the effect that in 1948 the Soviet armed forces had the capability of “...over-running in about six months all of Continental Europe and the Near East as far as Cairo, while simultaneously occupying important continental points in the Far East.” They also observe that the Soviet Union would be able to subject Great Britain to “severe air and missile bombardment”.\(^\text{73}\) While the authors note that “Soviet domination of the potential power of Eurasia, whether achieved by armed aggression or by political and subversive means, would be strategically unacceptable to the United States” they acknowledge that “...rapid military expansion over Eurasia would tax Soviet logistic facilities and impose a serious strain on Russian economy.” Given that any attempt by the Soviet Union to expand the territory under its control by military means would bring it into direct military conflict with the United States, the authors are able to observe with some relief that “...Soviet capabilities might well, in face of the strategic offensive of the United States, prove unequal to the task of holding the territories seized by the Soviet forces.”\(^\text{74}\)

In specifying the objectives and aims of the United States with respect to the Soviet Union, the authors of NSC 20/4 remained faithful to the Eurasian geopolitical orientation of American strategy that was discussed and examined above. As seen in the last chapter, this geopolitical orientation lay beneath the policy of containment. It was also an important component of the doxa. Because the Soviet Union was the predominant power in the Eurasian heartland, and

\(^\text{72}\) NSC 20/4 in Etzold and Gaddis, \textit{ibid.}, p. 206

\(^\text{73}\) \textit{Ibid.}

\(^\text{74}\) \textit{Ibid.}, pp. 208 and 206
because of the ideological orientation of its leaders, it was believed to present a formidable threat to the Eurasian rimland and offshore powers. Thus in the view of the authors one of the chief aims of American strategy should be “[T]o encourage and promote the gradual retraction of undue Russian power and influence from the present perimeter areas around traditional Russian boundaries and the emergence of the satellite countries as independent entities of the USSR.”

In order to attain its aims and objectives, the United States ought, according to NSC 20/4, “[D]evelop a level of military readiness which can be maintained as long as necessary as a deterrent to Soviet aggression, as indispensable support to our political attitude toward the USSR, as a source of encouragement to nations resisting Soviet political aggression, and as an adequate basis for immediate military commitments and for rapid mobilization should war prove unavoidable.” Here again appears the policy makers’ and military planners’ notion of “deterrence”. “Deterrence”, as they understood it, was a by-product of planning for the early/pre-emptive use of nuclear weapons.

Like NSC 30, NSC 20/4 did not discuss the planned strategic air offensive in any detail. As noted above, NSC 30 was the only general NSC statement on atomic warfare to receive Presidential endorsement before the end of the 1950s. Similarly, the guidance provided to the war planners in NSC 20/4 was very general. However, unlike NSC 30, NSC 20/4 contained authoritative statements of national interest with regard to atomic warfare which in effect established a policy and planning framework for the formulation of emergency war plans (and their so-called “atomic annexes”). Indeed, emergency war plan OFFTACKLE (approved by the JCS on December 8, 1948) was the first such plan “...to have the advantage of proceeding from statements of national interest devised in the State Department and in the National Security Council, notably NSC 20/4.” Thus, NSC 20/4 has to be read in conjunction with OFFTACKLE and the subsequent strategic and war plans that were devised by the military planners. Despite the general nature of the guidance provided to the planners by the high policy makers,

75 Ibid., pp. 209 and 210; emphasis added
76 Editors’ Introduction to ‘Brief of Joint Outline Emergency War Plan (OFFTACKLE)’ in Ibid., p. 324
these plans make it perfectly clear that pre-emption was very much the order of the day.

Curiously, the Harmon Committee report of May, 1949 was highly critical of the view that nuclear weapons would be decisive in a war with the Soviet Union. It was precisely this view which underpinned the strategic analysis and guidance for war planning which appeared in NSC 30 and NSC 20/4. The Harmon Committee, which reported to the Joint Chiefs of Staff and the Secretary of Defense, was comprised of "two officers each from the army, navy, and air force, headed by the senior air force officer, Lieutenant General Hubert R. Harmon." The report, titled 'Evaluation of Effect on Soviet War Effort Resulting from the Strategic Air Offensive', was "based on the best available information" and "one of the major strategic analyses of the early Cold War." It was not until 1953 that a comparable study was prepared.77

The Committee noted that the planned strategic air offensive was divided into two phases. The initial phase would consist of "...a series of attacks primarily with atomic bombs on 70 target areas (presently planned by the Strategic Air Command to be accomplished in approximately 30 days)." The second phase would be a "...continuation of the initial attack with both atomic and conventional weapons." In the view of the Committee, "[T]he initial atomic offensive could produce as many as 2,700,000 mortalities and 4,000,000 additional casualties...A large number of homes would be destroyed and the problems of living for the remainder of the 28,000,000 people in the 70 target cities would be vastly complicated." Nevertheless, thought the Committee, the atomic offensive would not be decisive. It would not "...bring about capitulation, destroy the roots of Communism or critically weaken the power of Soviet leadership to dominate the people." The Committee worried about the psychological effects of atomic bombing. Perhaps, as in the case of strategic bombing of German and Japanese cities during the Second World War, it would for the "majority of the Soviet people" actually "...validate Soviet propaganda against foreign powers, stimulate

77 Rosenberg, 'Hydrogen Bomb Decision', op. cit., p. 72
resentment against the United States, unify these people and increase their will to fight.” The atomic offensive would not “seriously impair” the "capability of Soviet armed forces to advance rapidly into selected areas of Western Europe, the Middle East and Far East". But after the advance Soviet capabilities would “progressively diminish” as a result of the enormous logistical, transportation and other problems produced by sustained bombing.78

The Committee feared that “[A]tomic bombing would open the field and set the pattern for all adversaries to use any weapons of mass destruction and result in maximum retaliatory measures within Soviet capabilities.”79 Nevertheless, despite its doubts as to the efficacy of the air-atomic offensive and about the dangerous precedent it would set, the Committee came down strongly in favour of the early use of atomic weapons by the United States in war with the Soviet Union. In the words of the report,

[However], the atomic bomb would be a major element of Allied military strength in any war with the U.S.S.R., and would constitute the only means of rapidly inflicting shock and serious damage to vital elements of the Soviet war-making capacity...From the standpoint of our national security, the advantages of its early use would be transcending. Every reasonable effort should be devoted to providing the means to be prepared for prompt and effective delivery of the maximum numbers of atomic bombs to appropriate target systems.80

The Harmon Committee report demonstrates just how deeply ingrained the belief in the “transcendental” and apocalyptic powers of the atomic bomb had become in American policy making and strategic planning circles by the late 1940s. Even though the contents of the report undermined the reasoning behind all American war plans—that atomic weapons and a sustained campaign of strategic bombing would be decisive in a war with the Soviet Union -- the report’s authors still felt compelled to endorse not only the massive use of these weapons, but also their

79 Ibid., p. 363
80 Ibid., pp., 363-364; emphasis added
early use. One explanation for the inconsistencies of the Harmon Report is to be found in the American policy makers' and war planners' experience of the atomic bombing of Hiroshima and Nagasaki.

Lawrence Freedman remarks that, in the Second World War, the leadership of the US Army Air Forces regarded the atomic bomb as being a “dramatic supplement” to the campaign of strategic bombing being conducted against the urban-industrial sector of Japanese society.81 The starkest contrast between terror bombing with conventional explosives and that using atomic weapons was that the latter introduced the element of surprise and shock to the campaign. (As seen above, the Harmon Committee recommended the early use of the atomic bomb in war with the Soviet Union on the grounds that it would “rapidly inflict shock”.) If terror bombing with “conventional” high explosive and incendiary bombs had implied a strategy of what Freedman calls “cumulative pressure”, then the use of the atomic bomb without a prior demonstration to the enemy of its destructive capabilities was a clear signal that a strategy of surprise and “maximum shock” had taken its place.82 Given the parlous and abject state to which Japan had already been reduced, the use of the atomic bomb was, as Freedman remarks, “like administering poison on the death bed”.83 (This was, as seen in Chapter 1 (note 121), also the view of the US Strategic Bombing Survey.) Nevertheless American policy makers and military planners appeared to establish a direct causal link between the bomb’s use and Japan’s unconditional surrender. Here is the source of the myth of the bomb’s decisiveness.

The American plans for war with the Soviet Union retained the supposed link between use of the bomb and the enemy’s prompt capitulation, for it was an integral part of the intellectual framework within which the policy makers and military planners worked. However, the war plans reversed the sequence of cumulative pressure and then surprise and maximum shock. Henceforth, shock

81 Freedman, op. cit., p. 18. Freedman also notes the conventional bombing raids “...did not stop as a prelude to the introduction of the bomb; they continued up to the very moment of Japan’s [formal] surrender.” Ibid
82 Ibid., p. 18
83 Ibid., p. 20
and surprise would first be savagely inflicted on Soviet society and people, and then a prolonged dose of cumulative pressure would be ruthlessly administered. American capabilities for inflicting surprise and shock and administering cumulative pressure rapidly expanded as the atomic stockpile grew in size and numbers of bombing aircraft increased. Unconditional surrender became an increasingly unrealistic and unrealisable objective of US nuclear strategy as American capabilities for annihilating the Soviet Union burgeoned inexorably.

David Alan Rosenberg has closely documented the increasing size of the American stockpile of atomic weapons from 1945 through the 1950s. He notes that, "[A]ccording to recent authoritative unclassified estimates, the stockpile grew from approximately 1000 weapons in the summer of 1953 to nearly 18,000 by the end of the decade."84 However, prior to 1948-49 the American nuclear stockpile was surprisingly small—at least in terms of the standards of the late 1950s and after. By June 30, 1946, "...there were only nine implosion nuclear components and an equal number of Mark III 'Fat Man' implosion assemblies in existence." At the same time the next year "...there were only 13 nuclear components available, along with 29 Mark III implosion assemblies."85 David Lilienthal, Chairman of the Atomic Energy Commission (AEC), informed Truman of the size of the stockpile in April 1947. According to Rosenberg, Truman was "...shocked to discover that it was only a fraction as large as he had thought."86 In July 1948 there were fifty weapons in the American atomic

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84 Rosenberg, 'Origins of Overkill', op. cit., p. 23
85 Rosenberg, 'U.S. Nuclear Stockpile, 1945 to 1950', Bulletin of the Atomic Scientists, May 1982, p. 26. For details of the technical problems relating to the assembly of these weapons, the difficulties of loading them on to bombers, and the extensive modifications required to make the B-29s, B-50s and B-36s "atomic capable" see Ibid., pp. 28-29
86 Rosenberg, 'Hydrogen Bomb Decision', op. cit., p. 66. Of Truman's nuclear legacy Rosenberg comments, "Truman established through the Atomic Energy Act of 1946 a system that made atomic weapons a separate part of the nation's arsenal, with the Present of the United States the sole authority over their use. He also presided over rapid expansion of the nuclear stockpile, approved steps which would result in the production of both tactical nuclear weapons and the thermonuclear 'super bomb', and left his successor a pattern of strategic planning which made a first strike on the Soviet Union's nuclear capability the highest priority in the event of war." 'Origins of Overkill', op. cit., p. 11. Truman's is a truly remarkable atomic legacy!
stockpile. Though none of these weapons was assembled, it still represented a significant increase in the stockpile and was a promise of things to come.

As a result of the development of more efficient bomb production methods, the AEC was able to report to the Joint Chiefs of Staff in October 1948 that the "...total of 400 bombs the JCS had requested would be available by January 1, 1951, two years ahead of schedule." Because atomic weapons "...came under the AEC budget, it was not subject to Truman's defense-spending ceiling and could be expanded without necessitating cut-backs in other military programs." The size of the stockpile, the number of targets on the target list, quantities of bombing aircraft, and magnitude of the atomic offensive all expanded accordingly. At the beginning of 1949, "...SAC had more than 120 nuclear capable aircraft, including thirty B-29s and B-50s modified to receive air-to-air refuelling from nineteen B-29s modified as aerial tankers." There were six trained bomb assembly teams on hand and another going through training. Roughly a year later there were in excess of 250 nuclear capable bombers operational. As the stockpile grew, so did the number of targets but at a rate in excess of the arrival of new weapons. This created a need for new weapons, which in turn caused the target list to expand, and so on ad infinitum.

The relatively small number of weapons in the stockpile at the beginning of the Cold War and the relatively slow expansion of the stockpile before 1948-49, have caused some authors to postulate that an "air-atomic" strategy in which air power

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88 Rosenberg, 'Hydrogen Bomb Decision, op. cit., p. 71
89 Ibid.
90 Rosenberg, 'Nuclear Stockpile', op. cit., p. 29
91 David Rosenberg notes that, "[T]he size of the contemplated air offensive expanded along with the nuclear stockpile. The target list which became part of war plan BROILER [March 1948] called for 34 bombs on 24 cities [atomic stockpile 35 bombs]. The Air Force HARROW war plan, which served to support JCS war plans FROLIC [May 1948, atomic stockpile 50 bombs] and HALFMoon [December 1948, atomic stockpile 150 bombs], contemplated dropping 50 bombs on 20 Soviet cities. Joint war plan TROJAN, approved on December 1948/January 1949, atomic stockpile 150 bombs, called for attacks on 70 Soviet cities with 133 atomic bombs [and, as seen in note 63, the attacks were to proceed over a period of thirty days]." 'Origins of Overkill', op. cit., pp. 15-16. Dates and atomic stockpile numbers, Kaku and Axelrod, op. cit., p. x. Herken reports that FROLIC was renamed GRABBER when "wiser heads" prevailed. Herken, op. cit., p. 248
was fully integrated with atomic weapons was similarly slow to develop and gain the acceptance of military planners. According to Gregg Herken, for example, the "modern doctrine of nuclear deterrence", which he says developed from the air-atomic strategy,

also actually followed by some time the practice of deterrence, as represented by Truman's decision to base long-range bombers overseas during the crisis in Berlin. It is only with that crisis, in fact, that the bomb and America's atomic monopoly became integral to U.S. war plans and to the administration's strategy for containing Russian expansion. But even then the shockingly small number of bombs in the U.S. arsenal and the continuing lag in adapting military doctrine to the atomic age meant that America's nuclear deterrent remained a hollow threat during the years that the United States alone had the bomb. And it is likely that the Russians, through espionage, knew well the emptiness of that threat.²²

It would have been remarkable indeed had the Russians been able to ascertain the size of the American atomic stockpile through espionage, considering that many American policy makers and strategists did not have access to this information. Indeed, as was seen above, Truman himself only learned of the size of the arsenal in April 1947. More remarkable is the fact that prior to August 1947, Curtis Le May, who was then the Army Air Force Deputy Chief of Staff for Research and Development and the person responsible for preparing the first air war plan nuclear annex (and future Commanding General of SAC) "...was unable to get information on the size of the U.S. arsenal."³ But it was in this climate of secrecy that the myths surrounding the effectiveness and capabilities of the atomic bomb, so fundamental to the strategy of nuclear deterrence, embedded themselves and became part of the culture of the agencies and bureaucracies that formulated American atomic strategy.

Rosenberg is no doubt correct in observing that "useful insights" into the military planning process in the period 1945-50 are provided by information on growth of the nuclear weapons stockpile and the increasing numbers of operational bombing

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²² Herken, op. cit., p. 6; emphasis added
³ Rosenberg, 'Nuclear Stockpile', op. cit., p. 28
aircraft (the Le May episode recounted above notwithstanding). The most important of these insights is that growth in numbers of atomic bombs and bombing aircraft and expansion of the target list were mutually reinforcing processes that propelled the strategy down an increasingly obvious exterministic path. However, the relationship between foreign policy and the expansion of the United States' air-atomic warfare capability is not nearly as obvious. Given the secrecy that surrounded the size of the American atomic stockpile it seems likely that its actual size did not and could not play a "...significant role in shaping particular Cold War policy decisions." The vacuum created by the absence of reliable information about the stockpile, even at the highest level of policy making, was filled by "myths and assumptions" about the bomb and it was these, claims Rosenberg, that had the "greatest impact on U.S. foreign policy". Nowhere was the role of atomic myths and assumptions more significant than in the American attempt to break the Soviet blockade of Berlin in 1948. In a "hastily convened meeting of military and civilian advisers" held at the Pentagon on 28 June, 1948 Truman approved a proposal to send "sixty B-29 bombers to bases in England and a smaller number to Germany". At the same time, the airlift to relieve the blockade was also upgraded.94 Given that the dispatch of the bombers was presumably a "show of U.S. nuclear might", it is quite surprising that no atomic bombs were actually sent to Britain or Germany and that the bombing aircraft flown over from the United States were not even atomic-capable. It is not certain whether Truman or other members of the National Security Council knew that this was in effect a "nuclear bluff". But that is in some respects beside the point. As Rosenberg points out, the Berlin nuclear bluff, intentional or not, demonstrated that the myths about atomic weapons "could be used to support foreign policy objectives." The release of accurate figures on the size of the American nuclear stockpile, and the policy makers' ignorance of them early in the Cold War, reinforce, says Rosenberg, the "...conclusion that, despite its vast power, the atomic bomb itself is less critical in global diplomacy than the ideas, beliefs and policy choices surrounding it."95 It is for this reason that Herken's

94 Herken, op. cit., pp. 258-259
95 Rosenberg, 'Nuclear Stockpile', op. cit., pp. 29-30. What is often forgotten in all this is that the United States retained a formidable capacity to conduct strategic bombing campaigns using
claim that the American nuclear deterrent remained a “hollow threat” during the years when the United States enjoyed an atomic monopoly has to be rejected. Since both the formal endorsement of the strategy of nuclear deterrence (as the policy makers and military planners understood it) and the seemingly inexorable increase in size of the atomic stockpile clearly bespoke an intention and a determination to use atomic weapons to realise American military and foreign policy objectives, the nuclear deterrent was not a hollow threat at all. That the intention and determination developed in ignorance of the size of the stockpile, and therefore irrespective of it, is deeply disturbing for it reveals how dangerous the situation became as the United States acquired thousands and then tens of thousands of warheads through the 1950s (and the 1960s, 1970s, 1980s). The myths and assumptions about nuclear weapons and their capabilities persisted in the face of the development of a massively redundant overkill capacity, indeed, they were the driving force behind the acquisition of such a capacity. As Kennan noted above, the United States always led the way in the arms race with the Soviet Union—and this was a direct result of the enduring myth established at Hiroshima and Nagasaki about the atomic bomb’s decisiveness (that is, that the wholesale destruction caused by bombing will lead inevitably to the enemy’s unconditional surrender). This myth survived, even in the face of the Soviet Union developing its own overkill capacity in the late 1960s. Again, the myth of the atomic bomb’s decisiveness consolidated the belief in the military and strategic effectiveness of overwhelming force and wholesale destruction that had shaped American military

“conventional” high explosive and incendiary bombs (to which the Koreans, Vietnamese, Cambodians, Laotians and, more recently, the Iraqis and Bosnian Serbs could readily testify). Indeed, as seen above, up until at least 1949 American nuclear war plans included proposed conventional bombing campaigns to be conducted at the same time or as follow-ups to atomic bombing. For instance, the CHARIOTEER war plan approved by the JCS on 10 December 1947, had as its prime objective (and in keeping with the other war plans of the time) the destruction of the capability of the Soviet Union to conduct war. After an initial atomic blitz of 30 days in which 133 atomic weapons were to be “unloaded” on 70 cities (eight for Moscow), 200 more bombs and 250,000 high-explosive bombs would be used in a bombing campaign to be waged over the ensuing 2 years. The DROPSHOT plan of late 1949 called for the “delivery” by SAC of about 300 atomic bombs and 20,000 tons of high-explosive bombs. Desmond Ball, ‘Strategic Nuclear Targeting’, op. cit., pp. 11, 12 and 13.

The Russians lifted the Berlin blockade on May 12, 1949.
thinking and practice since the Civil War. Striking the first blow and refusing to relinquish the initiative to the enemy had an even longer vintage.

4.9 The American conception of national security, NSC 68 and the strategy of nuclear deterrence

By 1948, observes Melvyn Leffler, the American conception of national security had been inflated to include "...a strategic sphere of influence within the Western Hemisphere, domination of the Atlantic and Pacific oceans, an extensive system of outlying bases to enlarge the strategic frontier and project American power, an even more extensive system of transit rights to facilitate the conversion of commercial air bases to military use, access to the resources and markets of most of Eurasia, denial of those resources to a prospective enemy, and the maintenance of nuclear superiority." It should be noted here that the maintenance of American nuclear superiority was a strategic concern at this stage, and therefore a part of the conception of national security, because it was anticipated that the Soviet Union would soon develop its own nuclear weapons. Leffler could also have mentioned that the top priority given to the BRAVO mission in JCS strategic plans and SAC war plans indicated that pre-emptive counterforce targeting was also becoming an extremely important component in the American conception of national security (at least for the policy makers and military planners). On the other side of the ledger, the Americans had reluctantly reconciled themselves to the existence of a Soviet cordon sanitaire in Eastern Europe and even more uneasily to the rapidly deteriorating situation in China, a situation that made direct intervention there an increasingly unattractive option. Nevertheless, the bloated and offensive American conception of national security became entrenched in the

departments and agencies of the American state that were responsible for the formulation, implementation and administration of American foreign policy and military strategy. The Truman Doctrine, Marshall Plan, and later the North Atlantic Alliance and the Japanese-American mutual Security Pact were some of the more obvious manifestations of the institutionalisation of this conception of national security. The relentless growth in size of the American air-atomic arsenal, the increasingly exterministic plans for war with the Soviet Union, and the formal endorsement of a strategy of nuclear deterrence 1948 were less visible, but no less significant, expressions of the same phenomenon.

As far as the strategy of nuclear deterrence (and policy of containment) is concerned, 1949 was a very big year. Following closely on the heals of the 1948 Czechoslovak coup and Berlin blockade, in 1949 the Soviet Union conducted a successful atomic test and the Communists were victorious in China, bringing to an end one of the longest and bloodiest civil wars in history. Then in 1950, North Korean forces advanced south of the 38th parallel initiating a four year-long war on the Korean peninsula. As Leffler remarks,

[T]he Truman administration responded with military assistance to southeast Asia, a decision to build the hydrogen bomb, direct military intervention in Korea, a commitment to station troops permanently in Europe, expansion of the American alliance system, and a massive rearmament program in the United States. Postulating a long-term Soviet intention to gain world domination, the American conception of national security, based on geopolitical and economic imperatives, could not allow for additional losses in Eurasia, could not risk a challenge to its nuclear supremacy, and could not permit any infringement on its ability to defend in depth or to project American force from areas in close proximity to the Soviet homeland.98

While the decision to build the hydrogen bomb may have been reinforced by the North Korean crossing of the 38th parallel (which occurred on June 25, 1950), it was not a response to that event. In fact, in January 1950 Truman had given the Atomic Energy Commission carte blanche to proceed with the work it was

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already doing on all types of nuclear weapons. This work included development
of the hydrogen bomb. In March of the same year, Truman approved a report of a
National Security Council special committee (the Special Committee of the
National Security Council on Development of Thermonuclear Weapons) which
recommended, amongst other things, that the AEC “continue to prepare for
quantity production of thermonuclear weapons in order to avoid delays once
feasibility was determined”. The first such weapon was tested in October 1952.

The coming into being of the North Atlantic Treaty Organisation, some months
before the Soviet atomic test, was an absolutely crucial step in the construction of
the American-led post War military alliance system. The North Atlantic Treaty
was signed in Washington on April 4, 1949, with Britain, France, Belgium, the
Netherlands, Italy, Portugal, Denmark, Iceland, Norway, Canada and the United
States all pledging “...themselves to mutual assistance in case of aggression
against any of the signatories.” Later the Senate ratified the Treaty and on July
23 of the same year Truman signed the Treaty into law. NATO was a vital part of
the overall policy of containment -- and strategy of nuclear deterrence. A Military

100 Isaac Deutscher’s judgement is acute. He notes that it was not unprecedented for “major
powers” to form alliances and even commence hostilities “with the help of false scares”. But, he
says, never before the Cold War “...had responsible statesmen raised a scare as gigantic and unreal
as was the alarm about Russia’s design for world conquest and world domination, the alarm amid
which the North Atlantic Treaty came into being.” That alarm continued, became even more
hysterical, after the formation of NATO. Deutscher, Marxism, Wars and Revolutions: Essays from
Four Decades, Verso, London, 1984, pp. 75-76
101 Stephen E. Ambrose, Rise to Globalism: American Foreign Policy Since 1938 (Fourth Rev.
Ed.), Penguin, Harmondsworth, 1985, p. 104. The expanded American alliance system of which
Leffler spoke above was well in keeping with the policy of containment and the inflated
conception of national security, and went well beyond NATO and the security pact with Japan.
The Rio Pact [1947], to which all twenty-one American republics became signatories, and the
“special arrangement with Canada” gave the United States the responsibility for the “defence of
the entire western hemisphere”. In the early 1950s, the United States signed bilateral treaties with
South Korea, Taiwan and the Philippines (as well as Japan) and with the establishment of the
South East Asia Treaty Organisation (SEATO) in 1954, it “joined Britain, France Australia, New
Zealand, the Philippines, Pakistan, and Thailand in promising mutual support to combat
aggression” in the region. The ANZUS Treaty of 1951 “created obligations” for the United States
in the southwestern Pacific. In addition, “[I]n the Middle East, it [the United States] was the chief
sponsor of another regional grouping, the 1955 Baghdad Pact (later, the Central Treaty
Organization, or CENTO), in which Britain, Turkey, Iraq, Iran, and Pakistan stood against
subversion and attack. Elsewhere in the Middle East, the United States had evolved or was soon to
evolve special agreements with Israel, Saudi Arabia, and Jordan”. Paul Kennedy, The Rise and
Fall of the Great Powers: Economic Change and Military Conflict from 1500 to 2000, Fontana
Assistance Program, under which the United States would provide military assistance to the member countries, accompanied the Treaty. Stephen Ambrose ingenuously argues that the "...meaning of NATO was that the United States promised to use the bomb to deter a Russian attack." Echoing the sentiments of Michael Howard, cited above, Ambrose also claims that the only alternative to extending nuclear deterrence to Europe was "...to build up Western ground strength to match the Red Army, a politically impossible task [in terms of domestic US politics]." The siting of bases in Europe for American bombers in order to put the strategy of deterrence into effect was, according to Ambrose, the "most important accomplishment" of the Treaty. Ambrose not only ignores the considerable effort that had been devoted to acquiring bases within range of the Soviet Union years earlier. He also fails to place the formation of NATO in the context of the American nuclear arms build up which, as seen above, really began in earnest in 1948. Furthermore, Ambrose unfortunately seems to conceive of "deterrence" in the same terms as the strategic theorists. However, his analysis of the reasons for the establishment of NATO is not completely without merit.

He does point out that a multinational treaty was not essential to the acquisition of bases, bilateral agreements would have been adequate. Moreover, "it also did not require military aid to the NATO countries."

The presence of Italy (and later [1952] Greece and Turkey) among the members of the alliance made a misnomer of the words "North Atlantic" in the title; Portugal’s presence weakened the assertion that it was an alliance in defense of democracy. Even weaker was the claim that NATO represented a pact between equals, for the United States had no intention of sharing the control of its atomic weapons with its NATO partners, and the bomb was the only weapon that gave NATO’s military pretensions validity. Acheson’s denials to the contrary notwithstanding, the Treaty paved the way for German rearmament [West Germany joined NATO in 1955].

102 Ibid., p. 108
103 Ibid., p. 107. During the Congressional committee hearings held to consider ratification of the NATO Treaty, Secretary of State Dean Acheson had replied to a question put to him by an inquiring Congressman about whether the United States was planning to rearm Germany: "We are
Noting that American “military planners tended to over-emphasize the threat posed by Soviet conventional forces”, David Rosenberg astutely observes that the “goal of having sufficient nuclear weapons to offset Soviet conventional capability” had actually “...launched the United States on a one-sided strategic arms race before the Soviet atomic test of August 1949.”\(^{105}\) This race had actually been in progress since 1947-48, probably earlier. The hydrogen bomb decision, and the formal endorsement of National Security Council Memorandum Number 68 in April 1950 -- which urgently called for massive American nuclear and conventional rearmament -- only intensified and escalated it. (This document is discussed and analysed below). Though Rosenberg does not mention it, so did the earlier establishment of NATO. It is hard to accept Rosenberg’s suggestion that the hydrogen bomb decision and endorsement of NSC 68 were “primarily political responses” to the Soviet atomic weapons test and the “fall” (liberation) of China. But he is certainly correct in his assertion that both were “policy choices” that “...were undergirded by a structure of military planning and associated concepts and analysis that had remarkable strength and persistence”. This structure, as he says, had a “profound relationship to the creation of American national security policy”.\(^{106}\)

Gregg Herken observes with some insight that NSC 68 “was less a review of past policies than a new recommendation that the nation rearm to fight the Cold War” even if at the same time it “demonstrated how nuclear superiority had become an integral part of America’s military and political strategy to contain Russia”. However, he demonstrates next to no perspicacity when he claims that “...the final ascendancy of the bomb in containment was less the result of any conscious design than the combination of technology’s implacable advance, the enmity of the Cold War with Russia, the misunderstood lessons of the previous war, and the

\(^{105}\) Rosenberg, ‘Hydrogen Bomb Decision’, \textit{op. cit.}, p. 86

continuing lack of any real alternative." The implacable advance of air-atomic technology was, as seen above, consciously sought and promoted by American policy makers and military planners. The advance of this technology was an integral part of the process of planning for the pre-emptive, counterforce use of nuclear weapons. Herken’s litany of lame rationalisations for “containment militarism” and the adoption of a strategy of nuclear deterrence by the United States is reminiscent of those offered by American liberal historians in their discussions and rationalisations of America’s acquisition of an empire at the turn of this century. His rationalisations are also similar to those offered by the American liberal historians cited above who claim that after the Second World War the United States had no choice but to rely on nuclear weapons in order to meet “the Soviet threat”.

The man largely responsible for drafting NSC 68 was Paul Nitze, Kennan’s replacement as head of the Policy Planning Staff in the State Department. Kennan resigned his position in protest at the increasing militarisation of containment. Kennan believed that a number of the most important foreign and military policy initiatives taken by the Truman Administration between 1948 and 1950 were counterproductive and inflammatory. He thought that the “formation of the North Atlantic Treaty Organization, the creation of an independent West German state, the insistence on retaining American forces in postoccupation Japan, and the decision to build the hydrogen bomb” would be “...certain to reinforce Soviet feelings of suspicion and insecurity, and, hence, to narrow opportunities for negotiations.” Nitze had been appointed to the Policy Planning Staff by Secretary of State Dean Acheson in 1949. The PPS was then still under the direction of George Kennan. At the end of that year Kennan left the PPS and Nitze was promoted to take his place. As Herken notes, “Nitze’s view of the Soviet Union accorded well with the developing hardline policy of the Truman administration toward Russia, which focused upon containing Soviet expansion around the globe.” Describing NSC 68 as the “first major reassessment of

107 Gregg Herken, Counsels of War, Alfred A. Knopf, New York, 1985, pp. 49 and 53
108 Gaddis, Strategies of Containment, op. cit., p. 75
109 Herken, Counsels of War, op. cit., p. 47
postwar national security policy”, Gaddis notes that it “reaffirmed Kennan’s conclusion that the United States should assign first priority to the containment of Soviet expansive tendencies.” The disagreement between Nitze and Kennan did not centre on the objectives of containment, rather it came down to the issue of the primary means used to realise them.110 That disagreement also bore on the nature of the Soviet threat. Yergin claims that NSC 68 “...is as important as Kennan’s Long Telegram and the Truman Doctrine in postwar history.” Not only was it the “first formal statement of American policy”, it also “...expressed the fully formed Cold War world set of American leaders, and provided the rationalization not only for the hydrogen bomb, but also for a much expanded military establishment.”111 This is precisely where Nitze and Acheson parted company with Kennan.

As with Kennan’s analysis of Soviet intentions and motivations in ‘The Long Telegram’ and ‘The Sources of Soviet Conduct,’ the authors of NSC 68 claimed that the leaders of the Soviet Union were animated by a “new fanatic faith” which justifies their attempts to impose their “absolute authority” over the parts of the world not yet within the orbit of the Soviet empire. The aims of the Soviet leaders are hardly modest for, according to NSC 68’s authors, they seek nothing less than, ...

the complete subversion or forcible destruction of the machinery of government and structure of society in the countries of the non-Soviet world and their replacement by an apparatus and structure subservient to and controlled from the Kremlin. To that end Soviet efforts are now directed toward the domination of the Eurasian land mass.112

NSC 68 was, then, certainly well in accord with the doxa and the ideological and geopolitical orientations of American foreign policy and military strategy, orientations that George Kennan had done so much to inculcate. Nevertheless, the

111 Yergin, op. cit., p. 401
authors recommend a course of action for the United States that goes well beyond “bland containment” of the Soviet Union—to use Robert Strausz-Hupe’s description of the policy inspired by Kennan. NSC-68 argues that “it is clear that a substantial and rapid building up of strength in the free world is necessary to support a firm policy intended to check and to roll back the Kremlin’s drive to world domination.”^113 The implementation and enforcement of this policy will depend upon a “more rapid build-up of political, economic and military strength and thereby of confidence in the free world than is now contemplated.”

Frustration of the Kremlin’s quest for world domination depends on the “free world’s” ability to develop a “successfully functioning political and economic system.” Such a development would in turn enable the “free world” to conduct a “vigorous political offensive against the Soviet Union.” But an “adequate military shield” would still be necessary, for this would provide the protection needed for the “free world” to build up its political and economic strength. It is also essential for the free world “...to have the military power to deter, if possible, Soviet expansion, and to defeat, if necessary, aggressive Soviet or Soviet-directed actions of a limited or total character.”^114

The authors of NSC 68 recommend that the United States “produce and stockpile thermonuclear weapons in the event they prove feasible” on the grounds that they “would add significantly to our net capability.” They also advise the United States against announcing “...that [it] will not use atomic weapons except in retaliation against the prior use of such weapons by an aggressor”. In other words, NSC 68 was opposed to a policy of no-first use of atomic weapons. It reasoned that, “[I]n our present situation of relative unpreparedness in conventional weapons, such a declaration would be interpreted by the U.S.S.R as an admission of great weakness and by our allies a clear indication that we intended to abandon them.”^115 Moreover, according to NSC 68, if the “free world” does not immediately set about increasing the “number and power” of its atomic weapons and its “general air, ground and sea strength”—including an expansion of its “air

^113 ibid., p. 434; emphasis added
^114 Ibid., p. 432
^115 Ibid., p. 418
defense and civilian defense programs"—the Soviet Union might calculate that it could gain by launching a surprise attack. The authors grimly predict that the Soviet Union would have the capability of launching such an attack in 1954. Not only will atomic and general rearmament give the “free world” “reasonable reassurance” that it could survive a Soviet first strike, it “...could safeguard and increase our retaliatory power, and thus might put off for some time the date when the Soviet Union could calculate that a surprise blow would be advantageous.”

As will be seen in the next chapter, NSC 68’s frequent references to and assessment of the “retaliatory power” of the United States require some decoding. For its authors were well apprised of the offensive capabilities of the United States and understood that these capabilities bespoke intentions. In other words, they knew that these capabilities did not accord with “deterrence” as understood by the strategic theorists.

For NSC 68 as for NSC 20/4 before it, war preparation and deterrence were indivisible. Both regarded deterrence essentially as a by-product of the planning for the early/pre-emptive use of nuclear weapons. NSC 68’s recommendation that first use of nuclear weapons not be renounced by the United States makes this particularly clear. Moreover, NSC 68 quotes NSC 20/4 extensively and approvingly including the section, cited above, in which a level of military readiness that would allow for deterrence of Soviet aggression and rapid mobilization in the event of war is called for. Furthermore, like NSC 20/4, NSC 68 has to be read in conjunction with the strategic and war plans that were being devised by the military planners. As noted above, these plans make it particularly clear that pre-emption was the order of the day.

The non-renunciation of first use, which actually amounted to saying nothing on use and giving tacit endorsement to first use (or, pre-emption), was the declaratory policy on the use of nuclear weapons of the United States. Declaratory policy, the apparent inconsistencies between actual and declaratory policy, and the role played by the strategic theorists’ concept of “deterrence” in giving the false

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impression that such inconsistencies were real (a role which the theorists did not actively choose) are the subject of the first section of the following chapter.

4.10 Conclusion
American nuclear strategy was, from its inception, reliant on American industrial and technological superiority. The mobilisation by the United States of overwhelming force would allow it, in the event of war with the Soviet Union, to operationalise a strategy that sought the annihilation of its adversary -- which was increasingly at odds with the objective of unconditional surrender. As Kennan had intimated, the strategy of annihilation not only called for the destruction of the enemy's armed forces, it also involved the premeditated extermination of the enemy's population. Alleged deficiencies in American conventional strength at the end of the Second World War did not force the United States to adopt a strategy of nuclear deterrence in which a massive air-atomic offensive against the Soviet Union was the centrepiece. Rather, nuclear deterrence perpetuated a strategic tradition that had originated during the American Civil War, been revived in the First World War and then consolidated and extended in World War II.

The strategy of nuclear deterrence was predicated on the early/pre-emptive use of overwhelming force in the pursuit of the enemy's wholesale destruction. Political objectives were displaced by military ends which were themselves dictated by military means. The intellectual framework of the policy makers and military planners that stood between the doxa and the planning for nuclear war contained assumptions and beliefs about the role and utility of military force and when, where and how it should be used. Little if any distinction was drawn between nuclear and non-nuclear military force. "Deterrence" as the strategic theorists understood the term was not even a consideration. "Deterrence" as the policy makers and military planners understood it was at best an afterthought and, accordingly, occupied only a peripheral position in their intellectual framework. This will become particularly clear in the following chapter where the stated or declaratory nuclear weapons policy of United States is considered in more depth.
than it has been in this chapter. A deeper analysis of declaratory policy will highlight and help to account for the sharp distinction between the two concepts of "deterrence". It will thus contribute to the sustained analysis and critique of the strategic theorists' concept of "deterrence" that will proceed in the next chapter. There are very good reasons for mounting this sustained analysis and critique. As a group, the strategic theorists identified themselves according to their concept of "deterrence". It was the concept upon which the whole theory of deterrence was constructed, was therefore central to the discipline of strategic studies, and was the point of difference between the strategic theorists and the policy makers and military planners.
CHAPTER 5

"DETERRENCE" BASED ON PRE-EMPTION OR "DETERRENCE" BASED ON RETALIATION?:
THE MILITARY PLANNERS VERSUS THE STRATEGIC THEORISTS

5.1 Preface
This chapter analyses the development of the theory of nuclear deterrence during the 1950s and argues that through the decade the notion of "vulnerability" attained an importance in the theory which very nearly put it on a par with "deterrence" itself. Indeed, "deterrence" and "vulnerability" became twin concepts in the deterrence paradigm. The development of the theory is analysed in the light of the substantive transformation which the planners', and, by association the policy makers', notion of "deterrence" underwent from the time of the first successful Soviet atomic test in 1949 through to the mid 1950s. It will be seen that the theory of deterrence developed even though the theorists' concept of "deterrence", which was the very same one that Brodie had offered back in 1946, remained largely unchanged. The growing importance of "vulnerability" in the theory was based on, and in turn only served to confirm, the continuing validity of Brodie's concept. This ensured that "the gap" between the two concepts grew ever wider through the 1950s. The analysis and argument proceed by a number of steps.

In section 5.2, the conventionally understood distinction between stated/declaratory policy and actual/employment policy will be critically analysed and shown to give a completely misleading impression of the nature and thrust of American nuclear strategy. As will be seen in this section, and picking up on a sub-theme of Chapter 4, official silence is exactly what so-called "declaratory policy" amounted to. Before the Soviet atomic test, silence meant saying virtually nothing about the use, in particular the planning for the early use, of nuclear weapons. This is seen most clearly in NSC 30, the relevant sections of which are analysed in the second section. After the Soviet test and for as long as NSC 30
remained current (until 1959), silence meant saying nothing about planning for the pre-emptive use of nuclear weapons. Silence also meant that no public disavowal or renunciation of "first use" was forthcoming. As seen in the last chapter, this position was put directly and unambiguously in NSC 68. The official (and classified) reasons given for the silence on use, and the refusal to renounce first use will be rehearsed in 5.2, but the point which has to be made here is that the strategic theorists' concept of "deterrence" was completely at odds with the non-renunciation of first use (really, omitting to say anything). As Kennan appreciated, the refusal to renounce first use undermined the view that nuclear weapons were being kept solely for the purpose of "deterrence" that is, for "deterrence" as the theorists understood the term. The interesting and significant thing is that the non-renunciation of first use was entirely in accord with planning for the pre-emptive use of nuclear weapons. The wide currency which the strategic theorists' concept of "deterrence" achieved, which was partly a function of the policy makers' and planners' silence, obscured this. It was equally a function of the fact that the theorists not only conducted a classified debate about American nuclear strategy, they also conducted the debate in public. The public debate was carried on in the publications of the theorists, a number of the most significant of which will be analysed in this chapter.

The publications to be considered are Albert Wohlstetter's 'A Delicate Balance of Terror', Bernard Brodie's *Strategy in the Missile Age* and Thomas Schelling's *The Strategy of Conflict*. Herman Kahn's *Thermonuclear War* will also be briefly considered. In addition, Brodie's 'The Development of Nuclear Strategy' will be analysed, for it casts light on the circumstances which led Wohlstetter to publish the 'Balance of Terror' article. It was through such publications that the theorists' concept of "deterrence" entered public discourse and in effect became the *unofficial* declaratory nuclear weapons policy of the United States. It is a moot point whether this was actively sought by the theorists. What is much more certain is that the official "declaratory policy" of the United States not only comprised a silence on use and a refusal to renounce first use, it also included a
failure openly to acknowledge that the "deterrence" of the theorists was completely at odds with the "deterrence" of the policy makers and planners.

However, allowing the theorists' concept of "deterrence" to take the place of an official definition of "deterrence" or pronouncement on use did not only obscure the actual direction and thrust of American nuclear strategy--massive, counterforce pre-emption. It also helped to ensure that the strategic environment inhabited by "the Kremlin" was characterised by uncertainty, unpredictability and confusion with respect to American intentions. As will seen, again in 5.2, NSC 68 argued cogently that there would be no point in the United States renouncing first-use, for the Soviet Union would judge American intentions according to its military capabilities rather than such a declaration. America's nuclear capabilities were not only offensive, they were massive and clearly bespoke an intention to use nuclear weapons in a pre-emptive, counterforce role, that is, in performance of the BRAVO mission. Allowing capabilities to announce intentions in this way, at the same time as the theorists' notion of "deterrence" was permitted to stand in the stead either of a pronouncement on use or an official definition of "deterrence", guaranteed that Soviet policy makers and planners would be uncertain, confused and unable to predict actual American intentions and behaviour with regard to the use of nuclear weapons. While this was a perfectly acceptable state of affairs for American policy makers and military planners, as will be seen in the following chapter it was considerably at odds with the strategic theorists' notion of "stable deterrence" and the rationality, and therefore predictability, which game theory prescribed for the decision making and actions of national leaders on both sides.

If the calculated inaction and silence of the policy makers and planners enabled the theorists' publications to announce an unofficial and completely misleading "declaratory policy", then the theorists had entirely different ideas for their published works. This has to do with the interplay between the classified and public debate they conducted about American nuclear strategy. This debate was conducted among the strategic themselves, and also with the policy makers and
planners. The theorists’ publications were used to voice their frustration and displeasure with the course and direction of the war planning done by SAC and the Air Force (and, at a further remove, the JCS and NSC). This is seen most clearly in Wohlstetter’s ‘The Delicate Balance of Terror’ which is analysed in section 5.5. In ‘The Development of Nuclear Strategy’, which is also discussed in this section, Brodie disclosed that Wohlstetter was moved to publish this article by his frustration with the intransigence of the Air Force and SAC in refusing to heed his urgent advice that the strategic striking force was vulnerable to a surprise attack and therefore unable to “deter” such an attack. Thus, the ‘Balance of Terror’ article has to be set against the background of the transformation in the planners’ concept of “deterrence”, which is analysed in section 5.3. The article also has to be considered in light of the reception which R-266, The Selection and use Strategic Air Bases and R-290, Protecting US Power to Strike Back met with in the policy and planning agencies. Both of these documents, which are studied in section 5.4, reported the findings of the classified work which Wohlstetter and his team of investigators had conducted for SAC at the RAND Corporation. As will become clear in sections 5.3 through 5.6, in his classified work Wohlstetter moved “vulnerability” to the centre of the theory of nuclear deterrence at just the time that the BRAVO mission was becoming an increasingly dominant part of SAC’s planned strategic offensives and the meaning of the planners’ concept of “deterrence” was undergoing a very significant transformation.

It was seen in Chapter 4 that before the Soviet test in 1949, “deterrence” for the planners and policy makers was a by-product of the planning for the early use of nuclear weapons. After the test, “deterrence” became the by-product of planning for the pre-emptive use of nuclear weapons. As will be seen in section 5.3, by the mid-1950s the assumption that a pre-emptive strike was the only way to “deter” a Soviet attack entered the intellectual framework of pre-emption and, accordingly, “deterrence” for the planners became squarely equated with pre-emption. The change in meaning fed off the bomber gap fiction which was also introduced in the former chapter. The “bomber gap”, and later the “missile gap”, itself fed off and contributed to the view that the Soviet Union was not only planning a pre-
emptive, counterforce attack (a “first strike”) but also that in all likelihood such an attack would be successful—that is, it would wipe out enough of the American strategic nuclear striking force (SAC) to leave it without the capacity to retaliate effectively. For the planners, the belief that there would be no possibility of effective retaliation to a first strike reinforced the view—which was a constitutive element of the intellectual framework of pre-emption—that the United States must at all times refuse to relinquish the initiative to the enemy and therefore pre-empt an enemy attack. In any event, American military planners reasoned that, just as the BRAVO mission had the highest priority in their own planned strategic offensives, so would it have the highest priority in the Soviet offensives. No wonder there was such an obstinate refusal to renounce first use.

Just as the strategic theorists had their own idea of “vulnerability”, which was predicated on the view that “deterrence” was the sole purpose of nuclear weapons, a purpose that could be fulfilled only by protecting the retaliatory capability of the weapons, so did the military planners have a notion of “vulnerability”. However, the military planners’ idea of “vulnerability” was predicated on the pre-emptive use of nuclear weapons and arose from the alleged inability of the American strategic striking force to eliminate the Soviet striking force in a pre-emptive or first strike. For the planners, therefore, vulnerability was largely a function of the inadequate size and strength of the American striking force, which might so tantalize the Soviets as to invite a first strike. The “bomber gap” gave credence to this view. The worst case scenario had to be planned for—that is, that the Soviets might get in the first, deadly punch. Planning for this contingency obviously meant planning an American pre-emptive strike—and building a strategic striking force with an enhanced offensive capability.

As will be seen in sections 5.3 and 5.4, Wohlstetter’s bases study and subsequent classified and published work also fed off, and contributed to, the bomber gap fiction. The Air Force Intelligence estimates which underpinned R-266 had also given rise to the belief in the existence and breadth of the bomber gap”. These estimates were consistently pessimistic with respect to the comparative sizes and
capabilities of American and Soviet offensive nuclear forces. As with the planning documents that are studied in section 5.3, Wohlstetter's study also assumed, more correctly took for granted, that the Soviet Union was planning a first strike that would eliminate the retaliatory capability of the strategic striking force of the United States. The military planners, and the policy makers, shared the assumption that the Soviet Union was planning a first strike (this assumption was, after all, entirely consistent with the doxa) and also concluded that it might so devastate the strategic striking force of the United States that it would be left with no capacity for effective retaliation. As already noted, this reinforced the planners' view that pre-emption was the only way to "deter" a Soviet attack. Size and capability of the strategic striking were crucial factors for the planners but so also was timing. The United States required enough offensive capability to enable it to eliminate the Soviet capacity for retaliation in a pre-emptive strike. Thus, for the planners, readiness meant the ability to pre-empt a Soviet first strike. Readiness for the strategic theorists, on the other hand, meant the ability to retaliate promptly to a Soviet first strike--without which there would be no "deterrence".

It was through Wohlstetter's classified and published work that "vulnerability" moved from the periphery, where it had been in Brodie's earliest work, to centre stage in the theory of nuclear deterrence. In section 5.6 it will be seen that 'The Delicate Balance of Terror' was well received by Brodie and Schelling. The views of Herman Kahn, another RAND strategic theorist, are also considered, for they reveal that he, too, found Wohlstetter's reasoning and arguments to be persuasive particularly with respect to the delicacy of the "balance of terror". Similarly, Brodie and Schelling accepted that the "balance of terror" was delicate. They also made it clear they were convinced by Wohlstetter's arguments that: "deterrence" was becoming increasingly difficult to achieve; the problem of "vulnerability" was too readily dismissed as unimportant by too many people who should have known better; and, it was seriously mistaken to believe that "deterrence" was simply a matter of matching the Soviet Union's ability to strike first. Brodie and Schelling shared with Wohlstetter the view that the problem of "vulnerability"
was the most urgent and pressing strategic issue, for they likewise reasoned that the ability of nuclear weapons to "deter" a Soviet attack, which was their sole purpose, would be effaced if they were vulnerable to attack.

It will also be seen in section 5.6 that some of the guarded comments and furtive allusions made by Wohlstetter, Brodie and Schelling reveal that they believed that the war plans devised by SAC and the USAF and the notion of "deterrence" employed by SAC and Air Force planners in devising these plans were based on dangerously faulty and theoretically unfounded assumptions about the uses and purposes of nuclear weapons. That the BRAVO mission was becoming increasingly dominant even as the Soviet Union developed thermonuclear weapons and acquired intercontinental weapons moved them to offer their muted and coded criticisms. For example, Wohlstetter was undoubtedly motivated by the growing importance of the BRAVO mission to advance the argument that it was mistaken to believe that "deterrence" consisted in nothing more than a matching of the enemy's ability to strike first. At bottom, the problem for the theorists was that the planners did not differentiate between conventional and nuclear weapons. They took it for granted that the traditional skills of the military profession, which were well suited to ensuring the effectiveness of the application of actual force, could be just as useful and effective in the nuclear, even thermonuclear, context as they were in conventional warfare.

As seen in the Introduction, the theorists believed that the models, methods and techniques they employed, based as these models, methods and techniques were on the genuine analytical method and theoretical framework of economics, were far superior to the traditional and obsolete skills of the military profession. Game theory and systems analysis were the two outstanding models or techniques employed by the strategic theorists in the systematisation and formalisation of Brodie's concept and theory of "deterrence". It will be seen in the following chapter that they thus played an absolutely crucial role in the development of the discipline of strategic studies. The systematic development of the theory of "deterrence" and the development of strategic studies were one and the same
process. For the moment, however, it is time to turn to an examination of the putative distinction between the actual and the declaratory nuclear weapons policy of the United States and how it related to the two concepts of “deterrence”.

5.2 The actual and declaratory nuclear weapons policy of the United States, and the two concepts of “deterrence”

In an article published in *Foreign Affairs* in 1956, Paul Nitze drew a distinction between the “...government’s ‘declaratory policy’ on nuclear weapons -- the ‘statements of policy which we make for political effect’ -- and its actual or ‘action policy’.”¹ As will be seen directly, this putative distinction has caused much confusion amongst commentators, even one-time insiders, on American nuclear strategy. The confusion arises from the failure to distinguish between the policy makers’ and military planners’ concept of “deterrence” and the strategic theorists’ concept. It is also the result of failing to recognise that, insofar as the United States had a declaratory nuclear weapons policy in the first six or seven years of the nuclear era, it was a refusal to say anything about American intentions regarding use, and first use in particular. This refusal actually kept declaratory policy in line with actual or action policy. A non-renunciation of first use was, in effect, a mute (or, non) admission that the United States was planning for the preemptive use of nuclear weapons and intended to use them in that manner. It certainly had given itself the capability to do so.

Philip Bobbitt speculates that Paul Nitze may have been responsible for first drawing the distinction between declaratory and actual nuclear weapons policy and specifically refers to Nitze’s 1956 *Foreign Affairs* article to support his contention.² In any event, Bobbitt draws the distinction thus: “Declaratory policy is the announced intention of the US regarding its nuclear plans if attacked; employment policy is the actual targeting plans.”³ In so drawing the distinction, Bobbitt adds little if anything to Nitze’s own description of the difference.

between actual and declaratory policy. Spurgeon Keeny and Wolfgang Panofsky are more expansive. In arguing that there "tends to be a very major gap between declaratory policy and actual implementation expressed as targeting doctrine", they go on to make the point that "[W]hatever the declaratory policy might be, those responsible for the strategic forces must generate real target lists and develop procedures under which various combinations of targets could be attacked."^4

Having argued that there is a gap between declaratory and employment policy, Keeny and Panofsky also suggest that there are uncertain links between them when they comment that "...it is not at all clear in the real world of war planning whether declaratory doctrine has generated [weapons procurement] requirements or whether the availability of weapons for targeting has created doctrine."^5 Keeny and Panofsky obviously take it for granted that their readers are well acquainted with the distinction between actual and employment policy for they make no effort to explain or account for it. Nevertheless, it is safe to assume that they conceive of the distinction in much the same terms as Nitze and Bobbitt. As argued above, the distinction as conventionally drawn is not very relevant to the study of American nuclear strategy in its first dozen or so years. In any event, what is interesting in Keeny and Panofsky's characterisation of the distinction is their acknowledgment that the process of selecting targets for attack proceeds uninhibited by declaratory policy (as conventionally understood). The more significant point is that they even go so far as to entertain the possibility that in the "real world" of war planning, weapons procurement and availability of weapons might have created doctrine. This suggests that the "declaratory policy" of refusing to renounce first use of nuclear weapons was dictated by the planning for

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4 Spurgeon M. Keeny and Wolfgang K.H. Panofsky, 'MAD [Mutual Assured Destruction] versus NUTS [Nuclear Utilization Target Selection]: Can Doctrine or Weaponry Remedy the Mutual Hostage Relationship of the Superpowers?', *Foreign Affairs*, vol. 60, no. 2 (Winter 1981/82), p. 289. Keeny "served on the staff of the National Security Council from 1963 to 1969, was Assistant Director of the U.S. Arms Control and Disarmament Agency from 1969 to 1973, and Deputy Director of that Agency from 1977 to 1981." Panofsky "served from 1960 to 1965 as a member of the President's Science Advisory Committee and from 1977 to 1981 as a member of the General Advisory Committee on Arms Control and Disarmament." From the biographies provided at the foot of p. 287, 'MAD versus NUTS'.

the pre-emptive use of nuclear weapons and the procurement of weapons in accordance with such planning. This refusal, first enunciated in NSC 68 and very much in line with the failure to provide an official definition of “deterrence”, left a vacuum that the strategic theorists’ concept of “deterrence” was allowed to fill. As will be seen below, the earlier NSC 30 (pre-Soviet atomic test) recommended against saying anything whatsoever about use.

David Rosenberg goes a step beyond the conventional characterisation of declaratory policy when he states that it expresses the “intentions of a particular administration” and embodies the “current national political philosophy regarding nuclear weapons.”6 Even though he says nothing specifically about actual nuclear weapons policy, or the distinction between actual and declaratory policy, he does point out that the “concrete decisions” of military planners, civilians bureaucrats, and “appointed officials” make and shape nuclear strategy which consists neither of “concepts” nor even “policy statements”.7 In one important sense, Rosenberg is correct for the US did not issue public statements on use. However, the classified statements produced in the high policy forums could reflect and/or endorse the

6 David Alan Rosenberg, ‘U.S. Nuclear Strategy: Theory vs. Practice’, Bulletin of the Atomic Scientists, March 1987, p. 20. Desmond Ball unhelpfully identifies five “facets” of U.S. strategic nuclear policy “not all of which are consistent with each other.” According to Ball, “[T]he policy outlined in the [Defense] secretary’s Annual Report and in other official pronouncements is best regarded as declaratory policy; it provides some official rationale for budgetary and other decisions, and the currency for most of the public debate about strategic policy, but it does not necessarily resemble at all closely how the United States would act in times of crisis or war.”

7 Ibid.
plans for use produced at the lower levels of strategy making. This was certainly true of NSC 30. This document, written in the wake of the imposition of the Berlin Blockade and the Communist coup in Czechoslovakia, strongly advised against saying anything at all about use -- whether to the Soviet Union, the Western European allies or the American people. The reasons and arguments its authors adduced for doing so clearly indicate that Rosenberg is correct in stating that declaratory policy reflected the intentions and philosophy on nuclear weapons of an administration, even if that policy amounted to saying nothing on use. However, it also shows that classified policy statements could be important in shaping and endorsing nuclear strategy as formulated by the strategic and operational planners.

While it was noted above that Paul Nize may have been responsible in 1956 for first drawing the distinction between actual and declaratory nuclear weapons policy, the authors of NSC 30 seem to have had at least an inkling of it. They also seem to have well understood its importance. It should be recalled that NSC 30 guided US policy making on atomic warfare until at least 1959. As seen in the last chapter, the authors of NSC 30 were of the view that a definite or equivocal decision on whether atomic weapons would be used in war by the United States was unnecessary. They reasoned that even in the absence of such a decision the military would and should plan to use all available means, including atomic weapons, in the event of war. Furthermore, NSC 30 clearly reveals that uncertainty and unpredictability were absolutely essential features of American declaratory nuclear weapons policy.

As seen in Chapter 4, the document takes a strong position against opening up the debate on the use of nuclear weapons or on any decision with regard to use. It notes that “official discussion” on the use of atomic weapons would inevitably reach the Soviet leadership who, it says, “...should in fact never be given the slightest reason to believe that the U.S. would even consider not to use atomic weapons against them if necessary.” If the Soviet leadership got the impression that the United States was considering not using atomic weapons then this could
be “magnified into a doubt” and “...provoke exactly that Soviet aggression which it is fundamentally U.S. policy to avert.” Even though the document argues that the Soviet Union should be given no reason to believe that United States would not use nuclear weapons, the net effect of its decision to make no decision on use, and its recommendation to stifle official discussion on use, would have been to cause great anxiety in the Kremlin. What the Kremlin faced was a deliberately ambivalent and ambiguous silence.

NSC 30 also considers the likely effect on the American people of open and official deliberations on the use of atomic weapons. According to the document, even if the decision to use these weapons was “clearly affirmative” “…it might have the effect of placing before the American people a moral question of vital security significance at a time when the full security impact of the question had not become apparent.” It therefore recommends that any decision await an “actual emergency” “...when the principal factors involved are in the forefront of public consideration.” Any public debate on the morality of using atomic weapons would also have damaging repercussions for Western Europe whose security and economic recovery are largely dependent on the atomic bomb which is the “…present major counter-balance to the ever-present threat of the Soviet military power.” In short, NSC 30 not only recommends a declaratory policy of neither confirming nor denying that the United States would use nuclear weapons in the event of war. It also strongly advises against raising or discussing the issue of use in front of either enemy or friendly audiences and this at the same time as it sets actual policy by sanctioning the early use and the planning for early use of atomic weapons. For the authors of NSC 30, not raising or discussing the issue of use was as much a part of “declaratory” policy as declining to confirm or deny whether and under what circumstances nuclear weapons would be used. In effect, declaratory policy was an official refusal to raise or debate in public anything to do with using nuclear weapons. It was unlikely that this could have produced

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9 Ibid.
anything but a troubling uncertainty in those who looked on from outside the policy making structure.

Gregg Herken argues that the distinction drawn by Nitze between declaratory and action or actual policy in 1956 was actually behind the recommendation in NSC 68 to refuse to renounce first use of nuclear weapons. Nitze had played a leading role in preparing NSC 68. As seen in Chapter 4, the reasoning which led to this recommendation was simple and direct. The announcement of a no-first use policy by the Americans would give to the Soviet leadership and to the allies of the United States the impression of American weakness and lack of resolve. Moreover, NSC 68 even doubted whether an American no-first use declaration would be taken seriously by “the Kremlin” on the grounds that “[I]t is to be anticipated that the Kremlin would weigh the facts of our capability far more heavily than a declaration of what we proposed to do with that capability.” Here the document makes an implicit link between military capabilities and intentions. This relates to the point made at the end of Chapter 4 on the need to decode NSC 68’s repeated references to the “retaliatory power” of the United States and the deterrent purposes of its nuclear weapons.

According to NSC 68, “[F]or us [the Americans] the role of military power is to serve the national purpose by deterring an attack upon us while we seek by other means to create an environment in which our free society can flourish, and by fighting, if necessary to defend the integrity and vitality of our free society and to defeat any aggressor.” For NSC 68, as for NSC 20/4 then, war preparation and deterrence were indivisible. But it is on the matter of capabilities, and how capabilities relate to intentions, that NSC 68 is most revealing. In assessing the atomic capabilities of the United States, the document estimates that the US “...now has an atomic capability, including both numbers and deliverability, estimated to be adequate, if effectively utilized, to deliver a serious blow against

11 Ibid.
12 Ibid., p. 392
the war-making capacity of the U.S.S.R."\textsuperscript{13} In other words, the United States had the capability to deliver a pre-emptive, counterforce nuclear strike against the Soviet Union and seriously damage its war-making capacity, that is, to undertake what would soon be known as the BRAVO and DELTA missions. NSC 68 warns that such an attack, even if it caused the "complete destruction of the contemplated target systems", would not force the Soviet Union to "sue for terms" or prevent its armed forces in the face of "ground resistance" from "occupying Western Europe". However, if the initial blow were serious enough it could "...so reduce the capabilities of the U.S.S.R. to supply and equip its military organization and its civilian population as to give the United States the prospect of developing a general military superiority in a war of long duration."\textsuperscript{14} Even though this implies that the United States did not then have military forces superior to those of the Soviet Union (a constantly reiterated theme of liberal American Cold War historiography), NSC 68 has to admit that the United States had the capability to deliver a pretty effective counterforce strike against its enemy. This puts into perspective the NSC 68's assertion, cited above, that the sincerity of a renunciation of first-use by the United States would be judged by "the Kremlin" on the basis of America's offensive and atomic capabilities.

Obviously, the authors of NSC 68 reasoned that the Kremlin would have been well apprised of the fact, as they were themselves, that the United States had the capability to deliver a massive, pre-emptive nuclear strike against BRAVO and DELTA targets (to use these terms anachronistically) in the Soviet Union (and "satellites"), and that the acquisition of this capability indicated a clear intent to use it as and when the Americans saw fit. Any declaration that the intent was otherwise -- that is, that the intent was in keeping with a view of "deterrence" more in keeping with the deterrence theorists' concept -- would understandably have been viewed with much skepticism within the Kremlin. But this is precisely where the confusion lay. There was no affirmative declaration or renunciation of

\begin{footnotesize}
\textsuperscript{13} Ibid., p. 415. It should be remembered that, at the time NSC 68 was written (February and March 1950) "Soviet war-making capacity" still included both the atomic capability of the Soviet Union and other "conventional" DELTA targets such as elements of the Soviet industrial economy. See Chapter 4, section 4.7.
\textsuperscript{14} Ibid.
\end{footnotesize}
first use, American offensive capabilities were allowed to announce American intentions, but the strategic theorists’ concept of “deterrence” effectively stood in the stead of any official definition of deterrence or pronouncement on use. It should not be thought that confusion, and uncertainty and unpredictability were like deterrence, merely unintended by-products of the combination of planning for the pre-emptive, counterforce use of nuclear weapons and silence on use. Paul Nitze and Dean Acheson, Secretary of State from 1949 to 1953, both thought that uncertainty and unpredictability with respect to American intentions on using nuclear weapons were an important part of the nuclear strategy of the United States.

Nitze believed that containment of the Soviet Union was reliant upon the United States being free to use nuclear weapons first and argued in his 1956 article that in the ongoing conflict with the Soviet Union it would be in American interests deliberately to foment uncertainty with regard to American intentions on the use of nuclear weapons.\(^{15}\) Nevertheless, NSC 68’s recommendations that American capabilities be allowed to announce American intentions and that there be no renunciation of first use would seem at first sight to lean in the direction of certainty and away from uncertainty. But appearances are often misleading. What could be easily overlooked was that the policy of non-renunciation of first use -- which amounted to tacit endorsement of first use -- was fully in accord with the policy makers’ and military planners’ concept of “deterrence”. As already noted, however, this concept was a tightly guarded secret and, in any event, only implicit in the classified statements of high policy (such as NSC 20/4 and NSC 68). The vacuum created by the silence and the failure to provide an explicit, public definition of “deterrence” was filled by the strategic theorists’ concept which was on the public record. The deterrence theorists’ concept in effect served as the declaratory nuclear weapons policy of the United States and thus would have misleadingly suggested that declaratory and actual policy did not coincide. Uncertainty and unpredictability would have been the inevitable result. Dean

\(^{15}\) Herken, *op. cit.*, p. 51
Acheson also argued that unpredictability was an important dimension of American nuclear strategy.

In an article originally published in 1959, Acheson expressed sentiments that were very similar to those of Paul Nitze with regard to the unpredictability of American nuclear strategy. Reflecting on the disparities in Soviet and NATO conventional forces that supposedly then obtained in Europe, Acheson comments that "the West" has the means to develop the "[conventional] capacity to contain an invading [Soviet] army with a smaller and modernly (sic) equipped force for a period of, say, six months". If the Soviets knew of this capacity, then in contemplating an attack across the central front they would have to "...calculate that tensions will mount to the point where they cannot be sure that the United States will not strike the first thermonuclear blow." Should the Kremlin launch a "ground probe" in Europe, and NATO ground forces were deployed in the manner recommended by Acheson, then the Kremlin would face the "very danger" which it hoped to avoid, that is, "the risk of a nuclear holocaust" and, moreover, a situation would have been created "in which predictability will be impossible". In other words, lack of predictability is an integral part of American (and NATO) nuclear strategy. Deterrence is the by-product of planning for the pre-emptive use of nuclear and thermonuclear weapons. Planning for the pre-emptive use of such weapons and deterrence are indivisible.

The uncertainty and unpredictability which the United States forced the Soviet Union to face were also likely to be exacerbated by the interplay between excess in destructive capability and seeming moderation in the military objectives of American nuclear strategy. Giving a false impression of moderation, NSC 20/4 and NSC 68 both broke with the modern American military tradition in asserting that unconditional surrender of the Soviet Union was no longer a military objective of the United States. NSC 68 claimed that its objectives were fully consistent with those of NSC 20/4, which as noted in Chapter 4 it quotes

16 Dean Acheson, 'The Premises of American Policy' in Hahn and Neff (eds.), American Strategy for the Nuclear Age, op. cit., pp. 418-419. This article was originally published in Orbis, Fall 1959.
extensively and approvingly. According to NSC 20/4, "[I]n the event of war with the USSR we should endeavour by successful military and other operations to create conditions which would permit satisfactory accomplishment of U.S. objectives without a predetermined requirement for unconditional surrender."\(^\text{17}\) NSC 68 also states that the "over-all objectives" of the United States did not include unconditional surrender.\(^\text{18}\) In line with its denial that unconditional surrender was one of the objectives of the United States, NSC 68 also insists that if the United States is forced by the Soviet Union to face a global war "we [the Americans] should take no avoidable initiative which would cause it to become a war of annihilation". Indeed, says NSC 68, if the United States equips itself with the forces to defeat a "Soviet campaign for limited objectives" then "it may well be in our interest not to let it become a global war."\(^\text{19}\) The problem with these disavowals and denials is that the United States was planning a war of atomic annihilation against the Soviet Union, its planning documents make it clear that any war with the Soviet Union would extend to many theatres around the globe, and it was only a possibility that it may not be in the interests of the United States to let a war to block a Soviet drive for limited objectives from becoming global in extent. NSC 68's claim that unconditional surrender was no longer a military objective of the United States came with the following qualification: "The growing intensity of the conflict which has been imposed upon us, however, requires the changes of emphasis and the additions" that have been included in the document. As noted in this and the last chapter, these "changes" and "additions" included massive nuclear and general rearmament, the producing and stockpiling of thermonuclear weapons, and refusal to renounce first use. These additions and changes did not sit at all comfortably with the highly qualified disavowal of unconditional surrender. They sat even less comfortably with American plans for nuclear war.

\(^{17}\) NSC 20/4, op. cit., p. 210; emphasis added. According to NSC 20/4, "U.S. Objectives and Aims Vis-a-Vis the Soviet Union" were "a. to reduce the power and influence of the USSR to limits which no longer constitute a threat to the peace, national independence and stability of the world family of nations. b. To bring about a basic change in the conduct of international relations by the government in power in Russia, to conform with the purposes and principles set forth in the UN charter." Ibid., p. 209.

\(^{18}\) NSC 68, op. cit., p. 390

\(^{19}\) Ibid., p. 393
What did the policy makers and military planners hope to achieve, if not unconditional surrender and a global war of annihilation? Some idea is provided by Nitze in his 1956 *Foreign Affairs* article. In that article Nitze, while acknowledging that victory in a nuclear war was not to be likened to victory in previous wars, nevertheless still argued and believed it to be possible. He thought that even if containment failed and the United States and the Soviet Union moved to all-out war, "American nuclear superiority would still allow the nation to win" "not 'in the sense of being richer, happier or better off after such a war'...but in the sense of 'a comparison of the postwar position of one of the adversaries with the postwar position of the other.'" In other words, for Nitze (and no doubt other policy makers) and the military planners, a nuclear war was fightable and winnable. This view survived even in the face of the Soviet Union developing its own nuclear and thermonuclear capacity and an intercontinental delivery system. The belief in the military efficacy of overwhelming force, the conviction that the military objective in war was to wreak wholesale destruction on the enemy, and an attitude that victory at-all-costs was possible and desirable--all reflected in American nuclear strategic and war plans, and all constitutive elements of the intellectual framework of pre-emption--were behind the strategy of nuclear deterrence.

In the next section, the transformation of the policy makers' and military planners' concept of "deterrence" in the late 1940s and early 1950s is examined. This will provide the necessary background for the following sections in which Wohlstetter's work, and its impact on other strategic theorists and strategic theory itself, is examined. Wohlstetter's work drew heavily on some of Brodie's earliest work on "deterrence", basically applying some of Brodie's abstract categories -- most importantly, "deterrence" and "vulnerability" -- to concrete weapons systems and actual basing modes in a world in which the Soviet Union was nuclear-armed (however primitively). In this way, Wohlstetter played an extremely influential role in the development and articulation of the strategic theorists' concept of

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20 Nitze, cited in Herken, *op. cit.*, p. 52
“deterrence”. What is interesting, however, is that in the process the strategic theorists’ concept of “deterrence” underwent very little, if any, substantive change. This fixity in deterrence theory becomes even more curious in light of the profound change to the planners’ concept, a change that was occurring even while the theorists worked closely with the planners!

For the policy makers and military planners, “deterrence” during the late 1940s had come to mean the largely unintended by-product (intimidation) of planning for the early/pre-emptive use of nuclear weapons. For the military planners at least, this concept underwent a transformation in the mid 1950s. While the new concept was not entirely at odds with the earlier, unstated official concept, it moved even further away from the meaning of the strategic theorists’ concept. For the military planners, “deterrence” came to mean pre-emption, not merely the planning for the pre-emptive use of nuclear weapons. For them, the only way to “deter” a Soviet first strike was to pre-empt it with an American first strike. This was tantamount to an explicit renunciation and repudiation of the theorists’ concept. It is important to take account of this transformation in the planners’ concept of “deterrence”. Their early concept had already been at a considerable remove from the strategic theorists’ concept, now the gulf had been widened to become an abyss. This transformation occurred at just the time that Wohlstetter was undertaking his bases study and subsequent, related work. While Wohlstetter was leading other strategic theorists, and strategic theory itself, into a conceptual world filled with “vulnerability”, “secure second-strike” or “retaliatory forces”, “stable deterrence”, and so on (not forgetting the pioneering work of Brodie), the planners were worrying about the ability of the American strategic striking force to get in a first strike before the Soviet Union did. War planning was concentrated more than ever on pre-emptive counterforce targeting. Nevertheless, the war planners and the strategic theorists did have at least one thing in common. “Deterrence” for both groups was predicated on the belief or assumption that the Soviet Union was planning a first strike or surprise attack against the United States and that it had, or would soon have, the capability of inflicting a crippling blow on the American strategic striking force. The planners assumed that the
Soviet Union, like the United States, had given highest priority to the BRAVO mission. The theorists believed or assumed, perhaps hoped, that the United States gave highest priority to “deterrence” as they understood it—that the strategic striking force of the United States was in a high state of readiness and well-protected from Soviet attack.

5.3 The transformation in the war planners’ concept of deterrence

It was observed in Chapter 4 that, in approving NSC 20/4, the National Security Council adopted a policy of nuclear deterrence that put great emphasis on America’s possession of the atomic bomb. NSC 20/4 called for a high level of military readiness on the grounds that such readiness would at once be a deterrent to enemy aggression and a prudent and timely preparation for war should it prove to be unavoidable. It was also observed in Chapter 4 that OFFTACKLE was the first emergency war plan prepared under the guidance of the National Security Council (NSC 20/4). It called for immediate and maximum exploitation of the atomic bomb in the event of the outbreak of war with the Soviet Union. For NSC 20/4 deterring aggression and preparing for war, and planning for the early use of nuclear weapons, were virtually one and the same thing. This view of the relationship between deterrence and war-preparation was, of course, not confined to NSC 20/4.

In May 1949 the Joint Chiefs of Staff had recommended a significant expansion of the atomic stockpile. The JCS recommendation was “partly a response” to the Harmon Committee report which was analysed in the previous chapter. The recommendation to increase the size of the atomic stockpile was also motivated by the view that atomic weapons would make up for the alleged wide disparity in Soviet and American conventional force capabilities which the JCS believed was very much in favour of the former.\(^{21}\) Truman responded to the JCS’s call for an

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\(^{21}\) In January 1950 JCS Chairman Omar Bradley and Defense Secretary Louis Johnson presented the JCS view in an oral report to President Truman. The report “...stressed American military weakness vis-a-vis Soviet conventional forces, and pointed out that only increased atomic production could bridge ‘the wide gap now existing between our international military commitments and our military capabilities.’” The JCS also thought that an accelerated atomic weapons programme “...would permit research and development efforts on new atomic weapons such as guided missile warheads, penetrating warheads, and, possibly, the ‘super bomb’.” Cited in
enlarged stockpile by setting up a special committee of the National Security Council comprising Secretary of State Dean Acheson, Secretary of Defense Louis Johnson, and Atomic Energy Commission (AEC) Chairman David Lilienthal. The committee was "...to study how the extensive building program that would be required related to the 1951 program for national security, then under review in the NSC". The committee, which reported on 10 October (a couple of months after the Soviet atomic test of July/August 1949) came down in favour of the JCS recommendation citing "interests of national security" in support of its view. The reasons for the AEC's support of the JCS are particularly interesting, echoing as they do NSC 20/4's argument in favour of a high level of military readiness. The AEC, in accepting the JCS recommendation, noted that an expansion of the stockpile would ""constitute a net improvement in our military posture both as a deterrent to war and as preparation for war should it prove unavoidable."" The AEC also thought that an expanded atomic weapons programme was 'technically feasible'. For its part, the State Department expressed the view that an expansion of the stockpile would be a timely response to the Soviet atomic test and evidence of the commitment of the United States to the North Atlantic Alliance. A week after receiving the special committee report, Truman approved the expansion of the stockpile.

Again as seen in Chapter 4, in March 1950 a transformed and renamed special committee of the National Security Council (the Special Committee of the National Security Council on Development of Thermonuclear Weapons which now included Commissioner Henry D. Smyth as the replacement for David Lilienthal who had retired) recommended production in greater numbers of thermonuclear weapons and initiation of programs on "'weapons' testing and ordnance and carrier development". The committee's report was approved by

Truman on March 10. As with the expansion of the atomic stockpile, the role of
the military planners, particularly the JCS, in the programme to expand the
production of thermonuclear weapons was crucial. The JCS were initially inclined
to the view that the hydrogen or "Super" bomb, like an expanded stockpile of
atomic weapons, provided the United States with a much needed counterweight to
the alleged Soviet superiority in conventional forces. The important point here is
that the military planners, in particular the Joint Chiefs of Staff and SAC, did not
treat thermonuclear weapons any differently from nuclear weapons. David
Rosenberg comments that, "[U]niformed military planners analyzed the new
weapon in the context of strategies for war with the Soviet Union, developed prior
to the Soviet test." In other words, as far as the military planners were
concerned, the hydrogen bomb could be incorporated into existing strategic and
war plans. Nevertheless, while to begin with the supposed Soviet conventional
superiority had motivated the JCS to recommend an expansion of the American
atomic stockpile and production in numbers of thermonuclear weapons, this view
underwent some change in the months after Truman’s decision to go ahead with
development of the thermonuclear weapon (January 1950). While the Soviet
atomic test was the immediate trigger to the JCS’s decision to give BRAVO
targets top priority in American strategic and war plans, the changing conception
of the hydrogen bomb helps to explain the growing importance in the early 1950s
of the BRAVO mission in these plans. The change in the military planners’
conception was closely linked to revised estimates, more correctly speculations, of
Soviet nuclear and thermonuclear capabilities.

The change in JCS thinking about the strategic role and usefulness of the
hydrogen bomb was essentially a knee-jerk reaction to what were nothing more
than revised speculations and suppositions about Soviet atomic and
thermonuclear capabilities. In particular, the “Loper memorandum” of February
16, 1950 had an inordinate impact on the JCS view of the hydrogen bomb. Loper,

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24 Ibid., p. 62
25 Ibid., p. 83
26 Ibid., p. 63
an army member of the Military Liaison Committee\textsuperscript{27}, sent his memorandum to MLC chairman Robert LeBaron. In effect, the memorandum put forward an early version of the bomber and missile gap fictions. Loper speculated that the Soviet Union may have had a programme underway to develop an atomic weapon from as early as 1943 and, if so, could already have "...attained a weapons production capacity equal to that of the United States, and might even have a thermonuclear weapon in production." Loper did concede that his speculation might be pure fantasy but thought the possibility he warned of was serious enough to warrant earnest attention by military and civilian leaders.\textsuperscript{28} The JCS concurred in Loper's view which had earlier been endorsed by LeBaron. The Soviet atomic test and reports that the Soviet Union was involved in espionage to collect information on the American atomic and thermonuclear weapons programmes created an environment in which the JCS found it all too easy to be taken in by this kind of rumour mongering and fantasising. On the basis of Loper's wild speculations on February 24 the JCS recommended to Truman (who had himself read the memorandum) that a no-holes-barred approach be taken to the development of the hydrogen bomb. Truman took the JCS recommendation on board and subsequently approved (March 10) the NSC special committee proposal to proceed with an expanded and accelerated thermonuclear weapons programme.

For the JCS, and no doubt other military planners and policy makers,

\textit{[C]oncern over how to counter Soviet conventional capability had been overshadowed by concern that the Soviet Union might outstrip the United States in weapons technology. With the emergence of that concern, whether justified or not, the military had accepted the dangerous upward spiral of the strategic arms race.}\textsuperscript{29}

\footnotesize{\textsuperscript{27} The Military Liaison Committee was attached to the Atomic Energy Commission. For a discussion of how agencies such as the Military Liaison Committee, Atomic Energy Commission, Joint Chiefs of Staff, and so on fitted in to the National Military Establishment and related to each other see Thomas H. Etzold, 'American Organization for National Security, 1945-50' in Etzold and Gaddis (eds.), \textit{Containment, op. cit.}, pp. 1-23, especially pp. 13-17. According to Etzold, the creation of the National Military Establishment -- which was headed by the Secretary of Defense "with retention of the individual services as discrete entities with cabinet-level civilian heads" -- was the "novelty" of the National Security Act of 1947 (p. 13).

\textsuperscript{28} Rosenberg, 'Hydrogen Bomb Decision', \textit{op. cit.}, p. 84

\textsuperscript{29} Ibid., p. 85.}
It was seen in Chapter 4 that the United States had enthusiastically embarked on a one-sided strategic arms race with the Soviet Union even prior to the Soviet atomic test. Alleged Soviet conventional superiority in conventional forces in Europe launched the United States down this path. Now alleged or possible Soviet superiority in nuclear and thermonuclear weapons escalated and accelerated the race. The concern over what might be called the nuclear and thermonuclear weapons “capabilities gap” also puts into context the growing importance through the early 1950s of the BRAVO mission in American strategic and war plans. The pre-emptive, counterforce targeting of nuclear weapons, and the strategic and war plans drawn up by the planners in the JCS and SAC were all predicated on the belief or supposition that this gap existed and that the Soviet Union might have a clear superiority in this the most strategically vital category of weapons technologies. A closely related and equally crucial assumption was that the Soviet Union also gave top priority to the BRAVO mission. Small wonder then that the military planners and policy makers were preoccupied with planning for the pre-emptive use of nuclear and thermonuclear weapons, that “deterrence” was at best a by-product or afterthought of such planning, and that, for the military planners at least, “deterrence” became equated with pre-emption. It is a much larger wonder that the strategic theorists were so wide of the mark -- even though they also assumed that the Soviet Union gave top priority to BRAVO targets!

Not only were counterforce targets an “integral part of U.S. nuclear war planning”, they were also “assigned high priority”. Indeed, as already seen, the blunting of the Soviet Union’s “capability to deliver an atomic offensive against the United States and its allies” was the highest priority objective in American strategic and war plans.30 As the BRAVO mission grew in importance so did the military planners’ conception of “deterrence” undergo a subtle but significant transformation. This is extremely important because this widened the gap enormously between the military planners’ conception and that of the strategic theorists. While the BRAVO mission grew in importance and the planners’

30 David Alan Rosenberg, ““A Smoking Radiating Ruin at the End of Two Hours”: Documents on American Plans for Nuclear War with the Soviet Union, 1954-1955”, *International Security*, vol. 6, no. 3 (Winter, 1981/82), p. 9
conception of deterrence was transformed so did the strategic theorists become increasingly preoccupied with "vulnerability". Their notion of "vulnerability" was predicated on the view that "deterrence" as they understood it was the sole purpose of nuclear weapons. Moreover, the strategic theorists' notion of "deterrence" only made sense if the strategic striking force had a well-protected retaliatory capability. Having at the ready a well-protected and large enough retaliatory or second-strike strategic striking force was, for the strategic theorists, the only way of deterring a Soviet first or pre-emptive strike. Far from deterring a Soviet first strike, for them a vulnerable strategic striking force would invite just that eventuality. "Vulnerability" grew in importance for the strategic theorists just as the BRAVO mission grew in importance for the military planners and policy makers. A number of crucial documents on American plans for nuclear war from the mid-1950s clearly demonstrate how important the BRAVO mission was becoming and the transformation which the planners' conception of "deterrence" was undergoing.

The first of these documents is the report of a briefing given to representatives of all American military services on March 15, 1954 by Major General A.J. Old, SAC's Director of Operations which was cited in Chapter 4. Old stated that the JCS had established the BRAVO, ROMEO and DELTA objectives and had ranked their priority in that order. While SAC had been allocated a "certain number" of targets by the Joint Chiefs, who also set SAC's targeting priorities and military objectives, its planning had gone "well beyond" that number. According to Old (as reported by Moore), "[A] current plan, indicated on a chart as SAC-NNEX [nuclear annex], covers up to 1700 DGZs [designated ground zeros]". In accordance with the top priority given the BRAVO mission, 409 of these targets were Soviet air fields.31

31 Memorandum 'Op-36C/jm' (report on the SAC briefing given to the representatives of all services at SAC Headquarters, Offutt Air Force Base, Omaha given by Major General A.J. Old, SAC's Director of Operations. The report was prepared by Captain William Brigham Moore, USN, of Op-36, the Atomic Energy Division of the Office of the Chief of Naval Operations, for the director of Op-36, Rear Admiral George C. Wright.), 18 March 1954, Document One in David Alan Rosenberg, "A Smoking Radiating Ruin at the End of Two Hours": Documents on American Plans for Nuclear War with the Soviet Union, 1954-1955', International Security, Winter 1981/82 (vol. 6, no. 3), p. 18
In his briefing, Old also described SAC’s “Optimum Plan”. In order to put this plan into effect, adequate numbers of aerial tankers and bombers would have to be deployed to overseas bases before the “major attack”. This would allow SAC to approach “Russia” from many different directions so as to overwhelm its “early warning screen” and to “lay down an attack” of 600-750 bombs. After the Soviet early warning screen had been “hit” it would be another two hours before bombs would be dropped. In the attack, SAC would use the “bomb-as-you-go system” “...in which both BRAVO and DELTA targets would be hit as they [SAC’s bombers] reached them”. Old also indicated just how many bombers would be involved in SAC’s optimum strike plan: “5 x 30 = 150 B-36s plus 13 x 45 = 585 B-47s for a grand total of 735 bombers”. As seen in Chapter 4, in the question and answer period following Old’s briefing Le May rejected the Navy’s oblique suggestion that striking the first blow was not “in keeping with United States history”.

Old’s description of the Optimum Plan makes it clear that SAC intended to hit the Soviet Union with, as Rosenberg puts it, a “single massive blow” that was designed to destroy each and every target on SAC’s target list -- and which effectively erased the distinction between the different targeting categories and strategic objectives. By concentrating SAC’s efforts on a single blow it was hoped that the efficiency and effectiveness of the nuclear offensive would be maximised and losses of SAC bombers and personnel minimised. A single massive blow would allow all the bombers to enter Soviet air space rapidly and at once, drop their bombs, and leave just as rapidly thus reducing the efficiency and effectiveness of Soviet air defences.

David Rosenberg makes the obvious point that, “[T]he ‘optimum’ massive single strike planned by SAC seems better suited to ‘massive preemption’ than to massive retaliation.” The policy of “massive retaliation” had been announced by US Secretary of State John Foster Dulles 12 January, 1954. Addressing the

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32 Ibid., p. 25.
33 Rosenberg’s introductory remarks, Ibid., p. 11
Council on Foreign Relations, Dulles asserted that the United States would in the future become more reliant than hitherto on what he called “deterrent power” and, accordingly, would be less dependent on “local defensive power”. Speaking in light of the salutary experience of the Korean War, Dulles did not dismiss “local defense” altogether but warned that “...there is no local defense which alone will contain the mighty landpower of the Communist world.” The inadequacy of local defence made it imperative that it be “...reinforced by the further deterrent of massive retaliatory power.” The “free community” would be able to deter aggression, Dulles declared gravely, only if it was “willing and able to respond vigorously at places and with means of its own choosing” and was determined to make it clear to a “potential aggressor” that “...he cannot always prescribe conditions that suit him.” Furthermore, observed Dulles fatuously, the Department of Defense and Joint Chiefs of Staff would now be able to “shape our military establishment to fit what is our policy, instead of having to be ready to meet the enemy’s many choices” and that this would permit “...of a selection of military means instead of a multiplication of means.”

Dulles’ remarks certainly do not sit at all well with the plans for nuclear war formulated by the Joint Chiefs of Staff and the Strategic Air Command. Arguably, Dulles’ address was intended completely to obscure the reality of massive pre-emption by totally inverting the logic and reasoning which lay beneath American strategic and war planning. Perhaps it was simply designed to heighten the confusion, uncertainty and unpredictability which the Soviet Union faced in working out what American intentions actually were. In any event, Dulles’ address was perhaps the only occasion up until that time on which the United States did formally and openly announce a declaratory nuclear weapons policy (even though the announcement was made by the Secretary of State rather than the Secretary of Defense or the President), a policy that was, moreover, completely out of step with actual or employment policy and operational planning.

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and the planners' and policy makers' concept of "deterrence". "Massive retaliation" was, however, apparently much more in accord with the strategic theorists' notion of "deterrence". In any event, Dulles' remarks, for all their inanity, do raise some interesting and important questions about the relationship between high policy and military planning.

Even though it was "generally understood", says Rosenberg, that the Soviet Union, not the United States, would be the aggressor in any future war and that the United States would not intentionally provoke war, "no high policy decision in the gray area of preemption was ever made".\(^5\) NSC 30 left the decision on how and when nuclear weapons would be used to the President. It followed that, because this was the only general, high policy statement on the use of nuclear weapons approved by any President before 1959 at least, “[U]nder Eisenhower as under Truman the decision as to whether a preemptive first strike was called for was left entirely to the President.” Although Eisenhower “never doubted” that it would be appropriate to use nuclear weapons in a “general war” with the Soviet Union, according to Rosenberg, he did have doubts as to the feasibility of “launching a surprise preemptive attack”.\(^6\) However, because the high policy makers provided no guidance on the first use or pre-emptive strike policy of the United States, neutralization of the Soviet Union's atomic capability continued to be the focus of the Joint Chiefs' and SAC's strategic and operational planning. Indeed, as the 1950s progressed, the counterforce or BRAVO mission “...became an increasingly dominant component of the planned atomic air offensives.”\(^7\) The increasing tendency to pre-emption is particularly apparent in the next document to be analysed.

This document is a briefing of WSEG [Weapons System Evaluation Group] Report No. 12 titled 'Evaluation of an Atomic Offensive in Support of the Joint Strategic Capabilities Plan [JSCP]' given by Lieutenant General Samuel E. Anderson, USAF, WSEG's Director, to the Joint Chiefs of Staff on April 6,

\(^{35}\) Rosenberg, "Smoking Radiating Ruin", op. cit., p. 13

\(^{36}\) Ibid., p. 15

\(^{37}\) Ibid., p. 16
1955. The Capabilities Plan was a short-range war plan which was reviewed and updated annually by the Joint Chiefs. Attached to the JSCP was an annex which contained the "target list and strategic priorities" of the planned nuclear offensive. It is important to realise that the nuclear annex to the JSCP was not an operational war plan. Responsibility for this resided with the Commander of SAC who annually prepared an operational war plan, the SAC Emergency War Plan (EWP) which was reviewed and approved by the JCS. WSEG Report No. 12, on which Anderson reported in his briefing to the JCS, refers to the nuclear annex of the JSCP not the SAC EWP. Nevertheless, Anderson's report is important and illuminating for it reveals just how imperative the BRAVO mission was becoming in American war planning during the mid 1950s. It also contains a renunciation of the whole validity and rationale of the strategic theorists' concept of "deterrence" and transforms the meaning of the military planner's notion of "deterrence".

The most important sections of the briefing given by Anderson deal with the need to blunt or "neutralize" the offensive nuclear capabilities of the Soviet Union, the estimation, or over-estimation, of those capabilities, and the under-estimation of American capabilities. As already noted, the bomber gap fiction was a common factor in the reasoning of, on the one hand, the military planners and, on the other, the strategic theorists. Rosenberg points out that the nuclear offensive for Fiscal Year 1954, as described in Moore's report (cited above), was "fundamentally the

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38 Fred Kaplan describes the Weapons Systems Evaluation Group as "the Pentagon think tank of the Joint Chiefs of Staff". Kaplan, *Wizards of Armageddon*, op. cit., p. 93. More helpfully, Rosenberg describes the WSEG as being a "joint operations analysis office under the Research and Development Board and the JCS". Rosenberg, 'Hydrogen Bomb Decision', op. cit., p. 72. The Research and Development Board was constituted under the National Security Act of 1947. The creation of the Board "...removed development in new weapons technology from the immediate responsibilities of the Joint Chiefs of Staff and raised the importance of the matter. With a civilian chairman and two representatives each from the Arm, Navy, and Air Force, the Board assumed the duties of preparing a 'complete and integrated' military research and development program, advising the Secretary of Defense on scientific research relevant to national security, recommending coordination and allocation of research tasks among the services, formulating policy on militarily significant research outside the National Military Establishment, and considering the 'interaction of research and development and strategy' for the purpose of advising the Joint Chiefs of Staff." Etzold, "Organization for National Security", op. cit., pp. 13-15. Quotes within are from the National Security Act of 1947.

39 The target list contained in the JSCP nuclear annex was produced by the Air Intelligence Production Division which was dominated by the Air Force. Before being sent to the Joint Chiefs for approval, the list was reviewed by the Joint Intelligence Committee and the Joint Strategic Plans Committee. Rosenberg, 'Smoking, Radiating Ruin', op. cit., pp. 8-9
same" as the offensive contained in the nuclear annex to the JSCP for Fiscal Year 1956 which was analysed in WSEG 12 and reported on by Anderson for the Joint Chiefs. However, “[D]uring that period, SAC achieved a significant increase in capability with the phasing out of propeller-driven B-29 and B-50 bombers and the assignment of the first giant eight-jet B-52s to operational squadrons.” In the same period, the size of the US strategic nuclear stockpile doubled, from approximately 1000 weapons to about 2000. Anderson’s briefing also indicates that, for the first time, a limited number of thermonuclear or hydrogen bombs would be available for SAC’s planned offensive.40

WSEG No. 12 assumed that the Soviet Union had 1530 medium bombers and 3570 light bombers and a total of approximately 284 atomic weapons of varying yields. While the briefing given by Anderson does acknowledge that the destruction of Soviet bombers and airfields would have an “important degrading effect” on the atomic capabilities of the Soviet Union, nevertheless “[...] even under the improbable assumption that only 5 per cent of the aircraft survived, seventy-five weapons could be lifted against the U.S., and 85 per cent of the remainder of the stockpile could be lifted against U.S. overseas bases and Allies in a single strike as soon as a few bases are recuperated.”41 Anderson asserted that, in order to increase the decisiveness and effectiveness of the American nuclear offensive, more weapons should be assigned to the “neutralization offensive”. This would ensure that “[...] all the important Soviet operational and staging bases [would be] destroyed in the first strike.” “Additional weapons” would also be needed in order to ensure the complete destruction of the Soviet “aircraft inventory” in “subsequent attacks” and to prevent “the Soviets” from launching any surviving bombers that had “regrouped” at “recuperated” airfields.42 In emphasising the importance of the factor of timing in accomplishing the BRAVO mission Anderson’s report points out that, should the Soviet Union launch an attack using all its weapons before the United States was able to do so, “or before our bombs

40 Ibid., pp. 7 and 8. Apparently fifteen thermonuclear weapons (probably TX-15s) were available at the time of Anderson’s briefing. Ibid., p. 31. See also Rosenberg’s comments in Ibid., note 2, pp. 31-32
41 Ibid., p. 32
42 Ibid; emphasis added.
fall on targets”, “…the U.S. offensive may not materially reduce the Soviet atomic capabilities.” This also makes it clear that American military planners assumed that the Soviet Union, like the United States, had given top priority to pre-emptive counterforce targeting and the BRAVO mission. The importance of this assumption is made particularly clear in Anderson’s concluding remarks. In summarizing the “principal combined effects of the atomic offensives [in support of the BRAVO, DELTA and ROMEO objectives] as determined by this evaluation”, Anderson observed that the “atomic offensives do not provide a high degree of assurance of neutralizing the Soviet atomic capability”. One of the main reasons for this was “[T]he probability that U.S. deliveries of weapons on Soviet targets may well occur after the Soviets have launched atomic attacks against the U.S. and/or its allies.” According to Anderson, the number of bombs presently allocated for dropping on Soviet airfields would not “…deny the Soviets the physical capability of air-lifting atomic weapons against the U.S. and its Allies even if we should strike first”. Only an “allocation of approximately twice that evaluated in WSEG Report No. 12” would provide a “high degree of assurance” that the United States could destroy all the known Soviet operational and staging air bases. However, unless the United States “hit first”, even the additional allocation of weapons would not be able to prevent the Soviet Union from launching a first strike.

Anderson’s remarks, and the planned nuclear offensive they addressed, repudiated the reasoning behind the strategic theorists’ notion of “deterrence”. For the military planners, the only way to prevent or “deter” a Soviet first strike was to destroy, “blunt” or “neutralize” the Soviet atomic capability in an American first strike, for even twice the number of weapons that the United States then possessed was incapable of preventing or “deterring” such a Soviet attack. Thus, 

43 Ibid., p. 33
44 This assumption is made quite explicit in the report given by Old (the Director of SAC) to the representatives of all services that was summarised in Moore’s memorandum. At one point Moore quotes Old as say that “SAC presumes that Russia has the BRAVO (blunting) objective as top priority just as we have”. Ibid., p. 26
45 Ibid., p. 36
46 Ibid., p. 38
for the military planners, "deterrence" had come to mean "pre-emption" (and *massive* pre-emption at that) rather than simply the by-product of planning for the early/pre-emptive use of nuclear weapons. Timing, not vulnerability, was the most important consideration as far as the military planners were concerned for getting the bombers in the air early enough to drop the bombs before the Soviet Union could pre-empt the United States was the only way to ensure the effectiveness of the American nuclear offensive. The only real measure of effectiveness, then, was the extent of destruction of the Soviet atomic capability. Furthermore, there would have been no point in launching a retaliatory counterforce mission, that is, one that was initiated *after* the Soviet bombers had been sent on their way -- particularly if they, like their American counterparts, were being used to mount a single massive attack. The single massive attack remained a part of American plans for nuclear war for some time. Comments Rosenberg,

> [After 1955, SAC, perhaps partially in response to the WSEG 12 findings, placed its emphasis on striking Soviet strategic forces rather than industrial targets. Despite regular analyses of SAC's growing vulnerability to a possible Soviet first strike, the requirements for the strategic air striking force were "calculated in terms of its capabilities and vulnerabilities in destroying hostile targets systems -- not in terms of the residuum that might remain" to strike back after an enemy surprise attack. The advent of U-2 overflight reconnaissance of the Soviet Union in 1956 facilitated counterforce planning. By 1959, over 20,000 targets had been screened and analyzed by war planners. To deal with such a huge target complex, SAC, following patterns established in the mid-1950s, continued to plan for a massive combined assault with large-yield thermonuclear weapons on Soviet nuclear capabilities, military forces, and urban industrial targets.]^47

There is no doubt, as Rosenberg makes clear in this quote, that the military planners *were* concerned with the vulnerability of SAC's bombers to Soviet attack. However, as it also suggests, the planners' notion of "vulnerability" was markedly different from that of the strategic theorists. The planners were concerned with the bombers' vulnerability to enemy fire on their way to the single massive pre-emptive attack, while they were executing the attack, and when they were leaving. The vulnerability of bombers parked at air bases was of little

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concern to the military planners. The planners were nevertheless worried about the timing of the planned offensive -- they wanted to ensure that SAC would be able pre-empt the Soviet Union's feared pre-emptive strike. They were also agitated by the prospect that an American first strike might not be able to eliminate enough of the Soviet strategic striking force to prevent it from striking back with devastating consequences but thought that the Soviet Union would not have to face this unwelcome situation if it got in the first blow.

The fear that the Soviet Union might be planning to launch a first strike had exercised the planners since the early 1950s. The planners also worried about the possibility that the overseas air bases of the United States could be vulnerable to such an attack. However, as the 1950s progressed, and the BRAVO mission became increasingly important, so did the planners' notion of "deterrence" undergo the transformation that was analysed above. In line with this transformation, "vulnerability" as the theorists' were to conceive of it became less and less of an issue.

A February 1950 report of the WSEG (its first ever report) on the 'effectiveness of strategic air operations' had concluded that American air bases in England were vulnerable to Soviet attack and invoked the image of Pearl Harbour to warn of the fate that might befall them at the outbreak of war with the Soviet Union. The report estimated, after accounting for factors such as weather and the nature and effectiveness of Soviet defences, that 70 to 85 per cent of the bombers would arrive over their targets but conjectured that only 50 to 70 percent of the bombing force would make it back to base. It also found that SAC would face basing and logistical difficulties in carrying out the offensive. The Joint Intelligence Committee corroborated the WSEG report findings and predicted that the Soviet Union would be able to cause "serious damage" to the overseas air bases of the United States. President Truman was also briefed on the WSEG report. 48

48 Kaplan, op. cit., p. 93 and Rosenberg, 'Hydrogen Bomb Decision', op. cit., pp. 83 and 84
In May 1951 the Air Force asked RAND to conduct a study on the selection of overseas air bases with a view to determining the "...most effective ways for acquiring, constructing, and using air-base facilities in foreign countries." It seems that up until then a desire to minimise costs had been the chief concern guiding Air Force decision-making on "basing questions". More substantial questions and issues to do with "total systems costs", which varied significantly according to "alternative basing policies", had largely been disregarded by the Air Force. Albert Wohlstetter agreed to take up the basing study after being approached by Charles J. Hitch who headed up the RAND Economics Division. This marked the beginning of Wohlstetter's long infatuation with "vulnerability" -- though of a markedly different sort from the military planners'.

In two unpublished reports and a published article--spanning the period from the mid to the late 1950s--Wohlstetter pushed the line that SAC's strategic striking force was vulnerable to a Soviet surprise attack. Because he considered the Strategic Air Command to be a weapon whose sole purpose was "deterrence", Wohlstetter conceived of "vulnerability" largely in terms of the need to protect the US capability to strike back from a Soviet pre-emptive or first strike. Only if this capability were protected would the United States have any hope of "deterring" a Soviet attack. As seen above, the military planners conceived of "vulnerability" largely in terms of the need to protect American bombers from Soviet air defences while the bombers were carrying out the BRAVO mission. However, both views of "vulnerability" were consistent with the belief that the Soviet Union was planning a first strike which, if carried out, would devastate the strategic striking force of the United States. As will be seen below, an important part Wohlstetter's answer to the problem of vulnerability was to protect the bombers in hardened underground shelters, while the planners' solution was to ensure that SAC could pre-empt Soviet pre-emption and thereby "deter" a Soviet attack.

5.4 "Deterrence", "vulnerability" and Wohlstetter's contribution to the development of the theory of nuclear deterrence

The aim of Wohlstetter’s first report, Selection and Use of Strategic Air Bases, was, as its title suggests, to assist in the process of selecting air bases for the 1956-1961 period, and to determine the most effective manner of operating the bases and the bombers which used them. The report analysed and compared the cost, efficiency and effectiveness of different basing modes for SAC’s fleet of strategic bombers. The study was principally concerned with the most efficient and effective means for the basing and use of the B-47 intermediate range bomber and the B-52 intercontinental bomber. The methods employed by Wohlstetter and his team in compiling the air bases study will be examined in the following chapter.

Wohlstetter’s study grimly reported that in the second half of the 1950s, “...the Strategic Air Command, the world’s most powerful striking force, faced the danger of obliteration from enemy surprise attack under the then-programmed strategic basing system.” The study (and earlier briefings of it to the Air Force) particularly emphasised the vulnerability of overseas bases to surprise enemy attack. One third of these were within range of Soviet lightweight bombers and all of them were within hitting distance of Soviet medium bombers. At the time

50 The report, given the RAND number R-266, was a top secret study “released” by the RAND Corporation, Santa Monica, California, in April 1954. Wohlstetter, a mathematical logician, joined RAND’s Economics Division as a consultant in 1951. Others who worked on the study were Henry S. Rowen, a RAND economist who had also been trained in engineering, Frederic S. Hoffman, also an economist, and Robert J. Lutz who was an aeronautical engineer. In preparing R-266, Wohlstetter and his team worked over the calculations and assumptions that were contained in an earlier internal RAND working paper, ‘Economic and Strategic Considerations in Air Base Location: A Preliminary Review’ (D-1114), which had been drafted by Wohlstetter and Rowen. This 100-page document, which included 40 pages of graphs and tables, considered the question of the vulnerability of SAC bombers which were parked at their bases to a Soviet surprise attack. In their reworking of D-1114, Wohlstetter et al were chiefly concerned with checking the performance of different base systems against the costs associated with each. In doing so, they called upon the expertise of RAND colleagues in the Electronics and other departments of the Engineering Division, Cost Analysis Department (part of the Economics Division), and Mathematics Division (which included the Departments of Mathematical and Numerical Analysis). The political factors considered by the Wohlstetter team were confined to the problems involved in getting friendly countries to agree to the siting of SAC bases on their territory, for advice on which the team looked no further than the US State Department. Ibid., pp. 201, 205, and 207-208. The report was jointly authored by Wohlstetter, a mathematical logician and economist, Henry Rowen, an economist-engineer, Frederic S. Hoffman, another economist and Robert J. Lutz, an aerospace engineer all of the RAND Corporation.

51 Smith, op. cit., p. 208. Chapter VI of the Rand Corporation is a detailed, but ingenuous, account of the drafting and preparation of the bases study, pp. 195-240 passim.

52 Kaplan, op. cit., p. 99
Wohlstetter was conducting his study SAC had a system in place under which the overseas based would be used as advanced operating bases in time of war.\(^5^3\)

Wohlstetter and his colleagues calculated that a Soviet attack on these bases using 120 bombs of 40 kilotons each and “with average miss distances of 4,000 feet” could destroy between 75 and 85 percent of the B-47s flown to the bases in preparation for an American attack.\(^5^4\) Wohlstetter’s thinking was structured in terms of game theory and thus he assumed that the vulnerability of the bases was largely a function of their proximity to the Soviet Union which would permit of only minimal warning time of an impending attack.\(^5^5\) Assuming that the bombers would be used only for retaliatory or second strikes, the use of the overseas bases according to the system “programmed” by SAC therefore offered little potential for destroying enemy targets. In short, according to R-266, SAC had a system in place under which its bombers and bases would be used in a particularly ineffective and inefficient manner. The system’s vulnerability would not “deter” a Soviet pre-emptive attack, rather it would invite the Soviets to strike the first blow.

The system of overseas bases that was recommended by the Wohlstetter team was one under which the American bombers would be based in the continental United States. The bombers would receive ground-refuelling at overseas bases, which were relegated to staging areas, and thus would be able to operate intercontinentally.\(^5^6\) This system was preferred for a number of reasons. Because the bombers would be on the ground only for a short time either for pre- or post-strike refuelling they would be relatively invulnerable to an enemy attack, and the routes taken by the bombers on their way to and from the attack could be varied so that the enemy could never be sure which bases would be used. Bases used for staging and refuelling would not require the elaborate, expensive and vulnerable infrastructure needed at operating bases. Underground storage of fuel would also

\(^{53}\) Smith, *op. cit.*, p. 212  
\(^{54}\) Kaplan, *op. cit.*, p. 99  
\(^{55}\) Smith, *op. cit.*, pp. 213-214  
\(^{56}\) *Ibid.*, p. 212
greatly reduce vulnerability. According to Rosenberg, the findings of Wohlstetter's study "...resulted in the Air Force's decision to use [overseas] bases only for pre- (sic) and post-strike refueling." Moreover, declares Bruce Smith, "[T]he official history of the Strategic Air Command (SAC) acknowledges an indebtedness to the basing study in the development of the Operation Full-House System [which was "a new system employing the RAND proposed overseas-staging-base concept"]."

Fred Kaplan is much more circumspect than either Rosenberg or Smith. The Fullhouse system was in effect a repudiation of the then-programmed system but, unlike Wohlstetter's preferred option, was designed to reduce the pre-strike importance of overseas bases. Under the Fullhouse system overseas bases would not be used for staging and on-ground refuelling but would be relegated to support bases for aerial refuelling and post-strike operations. Kaplan points out that Wohlstetter and his colleagues had rejected the basing mode consistent with the Fullhouse Concept -- intercontinental operation with the aid of air-refueling -- on the grounds that acquiring the many additional aircraft for aerial refuelling required to put it into effect would leave less money available to purchase new bombers. SAC's solution to this problem was simple -- the Air Force would just have to receive bigger budget appropriations. Beyond this consideration, the problem of SAC vulnerability was predicated on the assumption that the bombers would be sitting around on the ground while the Soviets delivered their surprise attack. As seen above and in Chapter 4, this was completely at odds with JCS and SAC plans for war with the Soviet Union. Comments Kaplan, "[C]oncepts such as Fullhouse and its successors [such as Leap Frog, High Gear, Air Blast and Hot Point] were planned not just to reduce vulnerability, but to get SAC bombers over their targets more quickly, to get in a better, faster preemptive strike."

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57 Ibid., p. 215.
59 Smith, op. cit., note 31 and text, p. 235
60 Kaplan, op. cit., p. 107. Wohlstetter and his team also rejected the system of intermediate overseas operating bases on the grounds that it "...combined some of the major disadvantages of the advanced-overseas-operating system and the air-refueling [Fullhouse] system". Smith, op. cit., p. 215
61 Kaplan, op. cit., pp. 108 and 107
Moreover, even if the strategic bases study’s worst-case scenario came to fruition, and the Soviet Union was able to destroy 85 percent of the SAC bomber force, “...with no alterations in the SAC basing system at all, the United States could still have destroyed roughly 600 Soviet targets.” The study relied on Air Force Intelligence estimates of the size of the Soviet bomber force “which were consistently more pessimistic than those of the CIA and the other military services” and largely disregarded the size of the American nuclear arsenal which dwarfed the Soviet stockpile. (The Air Force estimates of the size of the Soviet bomber force had given rise to the “bomber gap”.)

Major General Old, the Director of SAC Operations, in his briefing of March 1954 (cited above) addressed the question of “How well could SAC survive a Pearl Harbor type of attack?” This question was that which the WSEG report of 1950 had attempted to answer with regard to bases in England and was essentially the same as that to which Wohlstetter sought answers in the bases study. However, Wohlstetter considered SAC survivability (that is, “vulnerability”) under the conditions imposed by the then-programmed basing system and, more importantly, based on the assumption that SAC had deterrent purposes only. Moore, the rapporteur of the briefing, came away with the “general impression” that “SAC must now rely heavily on much in-flight refueling to carry out his (sic) strike plans”.\(^\text{63}\) Intercontinental operation of bombers from bases in the US and heavy reliance on aerial refueling were at the core of the Fullhouse system which was designed to allow SAC to deliver a quicker and more effective pre-emptive strike -- and to reduce the importance of overseas air bases. At the conclusion of Old’s briefing General Curtis Le May, the Commanding General of SAC, commented that “SAC’s ultimate goal is to develop a true inter-continental bombing capability so that overseas bases and support will be unnecessary.”\(^\text{64}\)

\(^{62}\) Ibid., p. 109
\(^{63}\) Ibid., p. 28
\(^{64}\) Ibid., p. 28. This was not to deny that overseas bases had other functions as well. According to Townsend Hoopes, “[O]ne fact not always appreciated is the wide variety of installations and facilities that go to make up the base system, and the equally broad spectrum of military and political purposes they are designed to serve.” The base system is underpinned by complex “political and economic arrangements” and, “[T]hough it generates frictions at many points and creates acute difficulties between the United States and the host countries, it remains a major
The B-52 bomber would give SAC this capability. Like SAC’s commanders, Wohlstetter assumed that the Soviet Union gave top priority to the BRAVO or blunting mission—although Wohlstetter seems to have disregarded the fact that SAC also gave it top priority. Both Wohlstetter and SAC calculated the vulnerability of SAC on the basis of this assumption—indeed, Moore reported that he believed the “survival data” used by SAC were based on (unspecified) “Rand studies”. There is little doubt that these “survival” (or, “vulnerability”) data were contained in the briefings given to SAC and the Air Force by Wohlstetter and his team prior to the “release” of the R-266 report. (R-266 was released in April 1954, Old’s briefing took place in March, 1954.) SAC and Wohlstetter agreed in assuming that the Soviet Union was planning a pre-emptive counterforce strike. SAC conceived of the problem of survival or vulnerability in terms of the need to pre-empt a Soviet pre-emptive strike and thus “regarded alert time as the most important factor”. Protecting bases and aircraft from surprise attack was therefore at best a secondary consideration. As seen above, Anderson’s briefing of WSEG 12 stressed that the only way to prevent or “deter” a Soviet first strike was to pre-empt it with an American first strike. By implication, a reduction in the “vulnerability” of the American strategic striking force’s bases would be a futile gesture. However, it was expected that a reduction in the vulnerability of American bombers to Soviet air defences during an attack would help to ensure the success of the pre-emptive strike.

Writing in the late 1950s, even Bernard Brodie had to concede that the nuclear strategy of the United States was not formulated on the basis of the assumption, upon which the whole theory of nuclear deterrence (and discipline of strategic studies) was based. This was, of course, the assumption that the sole purpose of nuclear weapons should be “deterrence”, a purpose which could be fulfilled only by protecting their retaliatory capability. In *Strategy in the Missile Age*, published

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65 In June 1955 the first B-52 joined an operational squadron and by March of the next year the “...93rd Bomb Wing was fully equipped with the new plane”. Rosenberg, *Smoking, Radiating Ruin*, op. cit., footnote 8, p. 20.

in 1959, Brodie acknowledged that the United States then seemed to be preparing not for a retaliatory strike but “even if partly unconsciously” for a preemptive strike. He based this judgement on the observation that the United States did not then “...seem to be taking any particularly heroic measures for the protection of our strategic air force apart from planning an airborne alert which, when in operation, can affect only a very small part of that force.” Brodie observes that it was generally assumed that the American strategic force would be used only in response to enemy aggression. However he has to admit that the “…preparations and concepts for the use of the retaliatory force (sic) seem always to be geared to the tacit assumption that that force will be essentially intact and unimpaired at the moment it goes into action.” With no adequate protection provided for the strategic bombing force, leaving it vulnerable to surprise attack from the enemy, American military planners were relying on their ability to initiate a surprise attack or pre-emptive strike ahead of the Soviet Union.

Notwithstanding the less than enthusiastic reception given to R-266--the reasons for this are made clear in Brodie’s observations--a later report, (R-290) co-authored by Wohlstetter, Hoffman and Rowen, continued with the theme of bomber vulnerability and, and whether its authors intended it or not, became embroiled in the missile gap controversy. Protecting US Power to Strike Back went further than R-266 and “...warned that bombers based in the United States might soon be in danger of air or even missile attack, and recommended improvements in early warning systems and SAC response time, dispersal of the bomber force, and improved airfield defenses.” The need to improve airfield defense or air base, thereby reducing SAC vulnerability, was for Wohlstetter R-290’s most important finding. Protecting the strategic striking force in underground, hardened concrete shelters was Wohlstetter’s preferred solution to the problem of SAC vulnerability. Apparently the report did have some impact.

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68 R-290 was a RAND staff report titled *Protecting US Power to Strike Back in the 1950's and 1960's*, released by the RAND Corporation on September 1, 1956

69 Rosenberg, ‘Origins of Overkill’, op. cit., p. 46
SAC took steps to expand its system of bases in the United States and Canada and so disperse its bomber force, and also conducted tests into the feasibility of keeping one third of its bomber force on fifteen minute "ground alert". It should be remembered, however, that these measures were fully in keeping with the Fullhouse system. However, R-290's "chief impact", says Kaplan, was to catalyse the establishment of the Gaither Commission in the spring of 1957.

The Commission, more formally known as the Security Resources Panel of the Science Advisory Committee of the Office of Defense Mobilization, was chaired by H. Rowan Gaither, a "long-time RAND trustee and adviser". The Federal Civil Defense Administration had earlier proposed an "ambitious $32 to $50 billion civil defense program." The Gaither Commission was set up to consider this proposal but Gaither "...subsequently requested and received permission to expand the scope of the study to include the entire question of national defense in the ballistic missile era." The expansion of the scope of the Gaither Commission was due in no small part to Wohlstetter who had briefed the Commission on the findings of R-290.

The Commission's report, drafted by none other than the ubiquitous Paul Nitze and titled 'Deterrence and Survival in the Nuclear Age', emphasised, as had R-290, SAC vulnerability to surprise enemy attack. The report was briefed to

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70 Ibid.
71 Kaplan, op. cit., p. 125
72 Rosenberg, 'Origins of Overkill', op. cit., p. 46
73 According to Lawrence Freedman, during the briefing Wohlstetter presented the Commission with "...a similar analysis to that later published in Foreign Affairs on 'The delicate balance of terror'. Lawrence Freedman, The Evolution of Nuclear Strategy, MacMillan, London and Basingstoke, 1981, p. 161. The 'Balance of Terror' article is studied below.
74 Predating the Gaither Commission report was the Killian Report, more formally the report of the Technological Capabilities Panel on 'Meeting the Threat of Surprise Attack', which was presented to the National Security Council in February 1955. Like the Gaither Report, the Killian Report emphasised the vulnerability of SAC and called for its increased protection against surprise attack particularly with a Soviet multi-megaton capability in prospect. If these steps were not taken, the United States faced the danger of surprise attack and possible defeat. The report also recommended, again like the later Gaither Report, that the United States speed up development of the ICBM. Ibid., pp. 158-159 The Soviet Union first tested a "superbomb" (with a yield of 1.6 megatons) in November 1955. The American hydrogen bomb tested in October 1952 had a yield of 10 megatons but was not deliverable, and the one tested in February 1954 had of yield of 15
Eisenhower on November 4 and to the National Security Council a couple of days later. It recommended giving only low priority to a fallout shelter program but gave highest priority to reducing SAC's vulnerability and improving its survivability.\textsuperscript{75} One of the report's most important conclusions, one which voiced the strategic theorists' conception of "deterrence", was that the defence of the American nation depended on the "maintenance of a secure and effective retaliatory striking force." To this end, and like R-290, it recommended improving the reaction time of SAC, dispersing the bomber force, and upgrading airfield defences and tactical warning.\textsuperscript{76} The Gaither Commission report was more vociferous than R-290 and called for an increase in the "number of Atlas and Titan ICBMs to be initially deployed from 80 to 600" (with these to be operational by 1959) and an acceleration of the Polaris submarine launched Intermediate Range Ballistic Missile (IRBM) programme. It also called for Thor and Jupiter IRBMs to be placed in Europe, and urged that the number of Thor and Jupiter missiles initially to be deployed be increased from the 60 that were planned to 240.\textsuperscript{77} Wohlstetter and William Kaufmann, another RAND strategic theorist, sent the steering panel of the Gaither Commission a letter expressing their opinion that IRBMs would, like overseas bases which were close to the Soviet Union, be vulnerable to surprise Soviet attack and therefore unable to operate as a deterrent to Soviet aggression but, says Kaplan, the "letter went largely ignored".\textsuperscript{78}

The Gaither Commission did have limited success with the high policy makers. Eisenhower accepted the recommendation to speed up the ballistic missile development programmes then already underway. He also took steps to improve SAC's tactical warning and response times. However, he did not accept the view of the Gaither Commission report (and R-290) that the best way of protecting SAC was to reduce the vulnerability of its bombers on the ground. Rather, he was

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\textsuperscript{75} Kaplan, \textit{op. cit.}, p. 145
\textsuperscript{76} Rosenberg, "Origins of Overkill", \textit{op. cit.}, p. 47
\textsuperscript{77} Kaplan, \textit{op. cit.}, p. 144 and \textit{Ibid.}
\textsuperscript{78} \textit{Ibid.}, p. 144
\end{flushleft}
of the view that better response and tactical warning times would help to make sure that the bombers would be airborne before the arrival of a surprise attack. Since on-ground vulnerability was not so important, “[T]he program of bomber blast shelters recommended by the Gaither Committee was not implemented [this was one of R-290’s recommendations], and from 1957 on, airfield defense programs such as air defense missiles, interceptors, and survivable command and control systems were cut back.” By 1959, one-third of the SAC bomber force was being kept on ground alert and the “fail safe” or “positive control” system had been implemented allowing “...rapid response without the risk of initiating war through miscalculation.” The validity of the analysis of Soviet capabilities and intentions that was contained in R-290 and the Gaither Commission report and the cogency of the recommendations they made were predicated on the authenticity of the “missile gap”. According to the Gaither report, the Soviet Union had enough fissionable material available to produce 1,500 nuclear weapons in addition to a “...sizeable long-range air force, intermediate-range missiles, a mighty air-defense system, the development of cruise missiles (sic) and intercontinental ballistic missiles, in which...they have ‘probably surpassed us.’” The launch of Sputnik by the Soviet Union in early October 1957 lent credibility to such estimates and to the myth of a missile gap.

79 Rosenberg, ‘Origins of Overkill’, op. cit., p. 47. The programme of bomber blast shelters was one of R-290’s key recommendations.
80 Ibid., p. 49
81 Kaplan, op. cit., pp. 141-142. It is not clear what was meant by the term “cruise missiles”.
However, Eisenhower was understandably wary of the estimates of Soviet capabilities produced by Air Force Intelligence and SAC Intelligence -- and even of the previously more reliable National Intelligence Estimates. While he thought that the margin of the United States’ lead in nuclear weaponry, bomber strength and ballistic missile technology was gradually closing he believed, in the words of David Rosenberg, that it was not facing an “immediate crisis”. Indeed, says Rosenberg,

[R]ecalling the illusory “bomber gap” dissipated by U-2 reconnaissance, the President was skeptical of the 1958 National Intelligence Estimates which projected that there might be 100 Soviet ICBMs by mid-1959 or 1960, and 500 by 1963, and subsequent NIEs suggested that his doubts had been justified. Unfortunately, the “missile gap” would become a potent political issue exploited by Democratic presidential hopefuls, despite Eisenhower’s efforts to dispel it, and would not be shown to be an illusion until the first Discoverer and SAMOS satellites documented the miniscule (sic) size of Soviet missile capability in 1960-1961.82

As will be seen below, the Eisenhower Administration’s less-than-enthusiastic response to the intelligence estimates which purportedly provided evidence both of a “missile gap” in the Soviet Union’s favour and the vulnerability of the American strategic striking force, and upon which the Gaither Committee report was based, set the political context in which Wohlstetter publicly published ‘The Delicate Balance of Terror’. This article appeared in Foreign Affairs in January 1959 (both R-266 and R-290 had been highly classified reports). There was also, of course, a military context that was separate though closely related to the political setting. This military context was shaped by SAC’s and the Air Force’s hostile reaction to the recommendations for the on-ground protection from enemy surprise attack of the strategic striking force which Wohlstetter and his team had made in R-266 and R-290. As Fred Kaplan observes, the article was “essentially a distillation” of R-266 and R-290.83

82 Rosenberg, ‘Origins of Overkill’, op. cit., p. 48
83 Kaplan, op. cit., p. 171
5.5 Wohlstetter, “vulnerability”, and the ‘balance of terror’

In ‘The Delicate Balance of Terror’, Wohlstetter pointed out, as he had done in R-266 and R-290 that overseas bases had the distinct disadvantage of “high vulnerability” to a Soviet surprise attack. Moreover, warned Wohlstetter, “[B]ecause they are closer than the United States to the Soviet Union, they are subject to a vastly greater attack by a larger variety as well as number of vehicles.” He also observed that because of the problem of the vulnerability of overseas bases, the United States Air Force had decided to recall many of its bombers to the United States and to use overseas bases largely for refuelling, “particularly post-strike ground refueling”. In fact, as seen above, under the Fullhouse system overseas bases were to be used to support post-strike aerial refuelling. Though Wohlstetter does not mention it in the article, in R-266 he had rejected the use of overseas bases consistent with the Fullhouse system. Nevertheless, Wohlstetter did have to admit that basing the bombers in the continental United States and downgrading the importance of overseas bases had “...reduced drastically the vulnerability of U.S. bombers and at the same time retained many of the advantages of overseas operation.”

However, vulnerability would simply not go away. For the foreseeable future, most of the U.S. strategic force would be made up of manned bombers of medium range (B-47s). This meant that only “some” American bombers would be able to reach “some” targets in the Soviet from “some” bases in the 48 continental states “without landing on the way back”. More worryingly, “[N]one of the popular remedies for their [the bombers’] defense will suffice -- not, for example, mere increase of alertness (which will be offset by the Soviet’s increasing capability for attack without significant warning[aka a “surprise attack”]), nor simple dispersal or sheltering alone or mobility taken by itself, nor a mere piling up of interceptors and defense missiles around SAC bases.” Most of these “popular remedies”, had been

84 Albert Wohlstetter, ‘The Delicate Balance of Terror’, Foreign Affairs, vol. 37 (January 1959), p. 223. Interestingly, like Hoopes who was cited above, Wohlstetter also acknowledged that overseas bases had a “variety of important military, political and economic roles” in addition to “their use as a support for the strategic deterrent force”. Ibid., p. 229
85 Ibid., p. 223
86 Ibid., pp. 223-224
87 Ibid., pp. 217-218. As seen above, Wohlstetter’s suggestion that more active defences be employed at SAC bases had been largely ignored in favour of improved alertness.
recommended by Wohlstetter himself in his two classified reports. Wohlstetter did have to acknowledge that Atlas, Titan and Polaris "rockets" could do without overseas bases, but gravely pointed out that, "...even with the projected force of aerial tankers, the greater part of our force, which will be manned bombers, cannot be used at all in attacks on the Soviet Union without at least some use of overseas areas." Wohlstetter also raised doubts about the intermediate range missiles (Thor and Jupiter) similar to the ones that he and William Kaufmann had expressed (with no noticeable effect) in their letter to the Gaither Steering Panel. These missiles would be "continuously in range of an enormous Soviet potential for surprise attack" and therefore re-opened "...in a most acute form, some of the serious questions of ground vulnerability that were raised about six years ago in connection with our overseas bomber bases." (Wohlstetter's coyness here is curious for he does not mention that it was he, more than anyone else, who had been responsible for the raising of these questions.)

Besides publicly sounding the tocsin of the vulnerability of America's strategic bombing force, 'The Delicate Balance of Terror' also warned of the perils of presuming that: deterrence is automatic; that the strategic weapons on each side cancel each other out; and, that when an atomic stalemate is reached so does the probability of war recede. Claimed Wohlstetter, "[T]he notion that a carefully planned surprise attack can be checkmated almost effortlessly, that, in short, we may resume our deep pre-sputnik sleep, is wrong and its nearly universal acceptance is terribly dangerous." Far from being automatic, argued Wohlstetter, "[D]eterrence in the 1960s is neither assured nor impossible but will be the product of sustained intelligent effort and hard choices, responsibly made." The difficulty of achieving deterrence was not widely understood or appreciated. Rather, it was generally but erroneously believed that deterrence was a matter "...of simply matching or exceeding the aggressor's [that is, the Soviet

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88 Ibid., p. 224
89 Ibid.
90 Ibid., pp. 233 and 211
91 Ibid., p. 234
92 Ibid., p. 211
Union's] capability to strike first."\textsuperscript{93} Here, Wohlstetter seems to be taking exception to the military planners and their notion of "deterrence" and showing that he does not approve of their notion.

According to Wohlstetter, "[W]estern journalists have greatly overestimated the difficulties of a Soviet surprise attack with thermonuclear weapons and vastly underestimated the complexity of the Western problem of retaliation". Apparently, the over-estimation of Soviet difficulties was due "...partly to a wishful analysis of the Soviet ability to strike first."\textsuperscript{94} In calling attention to the difficulties that would be faced by the United States in attempting to maintain "deterrence" in the 1960s, Wohlstetter claimed that he was simply expressing the "...proposition that a surprise thermonuclear attack might \textit{not} be an irrational or insane act on the part of the aggressor." This was exceedingly worrying, for the strategy of deterrence (as conceived by the theorists) was or should be "aimed at a rational enemy". Thus the United States faced an intractable dilemma. In the absence of deterrence, "general war is likely" but even with it "war might still occur".\textsuperscript{95}

Earlier on in the article, and in accordance with the above point, Wohlstetter had argued that a first strike might at some unspecified time in the future seem to the Soviet Union like a sensible and rational option. After pointing out that in the Second World War it suffered 20,000,000 casualties, he goes on to observe that "Russia recovered extremely well from this catastrophe." If the Soviet Union makes "sensible strategic choices and we do not", warned Wohlstetter, then in the future there might be several "plausible circumstances" when its leaders might be "quite confident of being able to limit damage to considerably less than this number". Moreover "at some juncture" in the future the Soviet leaders might perceive a very great risk in \textit{not} striking first if they were, "for example", facing "...disastrous defeat in peripheral war, loss of key satellites with danger of revolt spreading -- possibly to Russia itself -- or fear of attack by ourselves." In these

\textsuperscript{93} \textit{Ibid.}, p. 212
\textsuperscript{94} \textit{Ibid.}
\textsuperscript{95} \textit{Ibid.}, p. 231
circumstances "striking first, by surprise, would be the sensible choice for them, and from their point of view the smaller risk."^{96} How could the balance of terror be anything but fragile (or, "delicate") when the United States faced an enemy such as this?

Indeed, according to Wohlstetter, even a general nuclear disarmament agreement held a great danger for the United States. Cautioned Wohlstetter, it should be borne in mind that, given the nature of the weapons required for general or unlimited war, "...the more extensive a disarmament agreement is, the smaller the force that a violator would have to hide in order to achieve complete domination". "Most obviously", warned Wohlstetter, "the abolition of the weapons necessary in a general or 'unlimited war' would offer the most insuperable obstacles to an inspection plan, since the violator could gain an overwhelming advantage from the concealment of even a few weapons."^{97} A deterrent was therefore an "inerradicable" necessity -- and there was no doubt as to who Wohlstetter believed the violator of any disarmament disagreement would be.

In his article, Wohlstetter also cautioned that deterrence should not be confused with "matching or exceeding the enemy's ability to strike first" in crude, quantitative terms. To view deterrence in this way, and thus as simply a numbers game, would be to misconstrue the "nature of the technological race" for to deter an attack did not merely mean matching the enemy's alleged first-strike capability. Rather, "[T]o deter an attack means being able to strike second" or, in other words, having the "capability to strike second".^{98} This was nothing more than a pithy definition of the theorists conception of "deterrence". In any event, by refusing to play the numbers game and warning of the dangers of doing so, says Kaplan, Wohlstetter sought "...to avoid any connection between his article and the missile-gap thesis." However, his warnings and predictions were based on the same intelligence estimates that had given rise to the missile-gap thesis "[A]nd they contained the same assumptions about Russian intentions, the same judgment

^{96} Ibid., p. 222
^{97} Ibid., p. 233
^{98} Ibid., pp. 212 and 213
that the Soviets would very likely threaten to attack the United States once they had, on paper, the technical ability to do so." These assumptions were the basis of the article’s wide appeal. They were precisely the assumptions that had gained widespread currency and legitimacy in the wake of the Sputnik shot -- indeed, they were no longer regarded as assumptions but were taken as facts. In summarising his views, Wohlstetter took them as certain facts and solemnly pronounced that, of the “principal conclusions about deterrence in the early 1960s”,

[T]he most important conclusion is that we must expect a vast increase in the weight of attack which the Soviets can deliver with little warning, and the growth of a significant Russian capability for an essentially warningless attack. As a result, strategic deterrence, while feasible, will be extremely difficult to achieve, and at critical junctures in the 1960s, we may not have the power to deter attack. Whether we have it or not will depend on some difficult strategic choices as to the future composition of the deterrent forces as well as hard choices on its basing, operations and defense.

‘The Delicate Balance of Terror’ amounted to little more than an oft-repeated warning of the vulnerability of the American retaliatory or second-strike force, the consequential likelihood of a successful, “warningless” Soviet first strike, and the difficulties for the United States in achieving in the 1960s anything more than a delicate strategic balance. It was aimed at the “civilian ‘defense-intellectual’ community in Washington and at Harvard and MIT, the denizens of the foreign-policy establishment who read and wrote for magazines like Foreign Affairs and who influenced the tenor and substance of the general discussion of all such issues.” As will be seen below, Wohlstetter’s analysis and conclusions also attracted the unqualified endorsement of some of his high-profile peers at the RAND Corporation, those, like Wohlstetter himself, who were instrumental in the systematisation of deterrence theory and articulation of the deterrence paradigm, and the formation and institutionalisation of the discipline of strategic studies.

99 Kaplan, op. cit., p. 172
100 Wohlstetter, op. cit., p. 211; emphasis added
101 Kaplan, op. cit., p. 171
The shrill tones of the article, its constant reiteration of the same message, and its appeal to a wider audience than had read R-266 and R-290 reflect the difficulties faced by Wohlstetter in getting the recommendations and proposals he had made in those studies accepted by the military planners. They also indicate his frustration with the intransigence of the Eisenhower Administration with regard to the “missile gap” and SAC vulnerability—the Administration he thought did not take his warnings seriously enough.

Brodie, writing in the last article he was to publish before his death, discussed the events leading up to the publication of ‘The Delicate Balance of Terror’ and cast some light on what Wohlstetter hoped to achieve by going public. According to Brodie, Wohlstetter’s article was the “first sharp public reminder” that the United States had an “important vulnerability problem”. Brodie also claims that the article was “precipitated by Wohlstetter’s frustration with the Air Force.” This frustration was the result of the Air Force’s rejection of the RAND study group’s preferred basing option for SAC bombers. It would appear that in the article Wohlstetter not only vented his frustrations with the Air Force, but also sought to raise the general level of alarm about the intractable vulnerability of SAC’s bombers, by deliberately downplaying the likely effectiveness of the “popular remedies” for curing vulnerability which he had listed—many of which were of course his own. Brodie observes that Wohlstetter “had been leading for over a year (sic) a large research project at RAND which had been trying to find the best means of protecting our bomber aircraft against surprise attack”. After rejecting the option of “airborne alert” and the “idea of striking at the enemy before he gets off the ground” (pre-emption), the project group had “...decided that the most cost-effective defense of bombers against surprise attack was a slightly-below-ground concrete shelter for each aircraft.” Brodie points out that the Air Force favoured the “airborne alert” but that even this was their second choice after pre-emption. As seen above, the military planners in SAC and the Air Force

102 Ibid., pp. 67-68
103 Ibid., p. 68. The failure of the Air Force to protect the bombers, which was still the case in the 1970s, not only indicated that it was interested in pre-emption, not “deterrence” and retaliation. It also suggested that it did not take seriously the possibility of a “surprise attack”. Brodie comments that “I do support fully the belief in the Air Force position that some kind of political warning [of
planned for a pre-emptive strike and had instituted “ground alert” for about one third of the strategic force. In contrast to the strategic theorists, the planners thought that the only way of preventing or “deterring” the Soviets was to pre-empt them. The Air Force’s response to Wohlstetter’s recommendation was, not surprisingly therefore, swift and furious. It “vehemently rejected” Wohlstetter’s solution “...invoking slogans which identified concrete with the Maginot Line and with excessive defense-mindedness.” In Brodie’s view, Air Force intransigence forced Wohlstetter to go directly to “the public” “...which by its response showed itself both surprised and alarmed at the situation he depicted -- the more so as his elegant use of the facts and figures at his fingertips lent persuasiveness to his message.”

Perhaps in a veiled allusion to the limp reaction of the Air Force to Wohlstetter’s confidential studies, Brodie had in *Strategy in the Missile Age* referred to the “professionally-induced aversion” which the “military people who design war plans” had “to being charged with being ‘defensive-minded’”. According to Brodie, these same people also had an aversion “...to basing any kind of plan on the assumption that the outbreak of hostilities will find us off our guard or otherwise discommoded.” It is not a mere coincidence or accident that Brodie’s comments on the aversions suffered by the “military people” appeared in the paragraph immediately following the one (cited above) in which he admitted that an attack] will always be available. Attack out of the blue, which is to say without a condition of crisis, is one of those worst-case fantasies that we have to cope with as a starting point for our security planning, but there are very good reasons why it has never happened historically, at least in modern times, and for comparable reasons I regard it as so improbable for a nuclear age as to approach virtual certainty that it will not happen, which is to say that it is not a possibility worth spending much money on.” *Ibid.*, pp. 68-69

104 In the late 1950s, SAC was pushing forward with plans to put about a quarter of the B-52s on airborne alert. While the JCS “approved the airborne alert in principle”, it “...recommended that it be put into operation only when the President considered such special precautions necessary.” The prohibitive cost of continuous airborne operations was the main reason for this recommendation. Rosenberg, ‘Origins of Overkill’, *op. cit.*, p. 49

105 Brodie, ‘Development of Nuclear Strategy, *op. cit.*, p. 68; emphasis added. It should be pointed out that Brodie considerably underestimates the amount of time which Wohlstetter and his “study group” had spent on the problem of lessening the vulnerability of SAC and thereby increasing its deterrent value.

106 Brodie, *Strategy in the Missile Age*, *op. cit.*, pp. 245 and 246; emphasis added. Brodie pointedly comments that being ‘defensive-minded’ is in practice “...construed as a frame of mind that seeks to take seriously into account the possibility that the enemy, rather than ourselves might seize and hold the initiative during the crucial early phases of the war.” *Ibid.*, p. 246
the "preparations and concepts" for the use of the strategic air force were designed more for pre-emption than retaliation. He obviously thought that he and the other strategic theorists, such as Wohlstetter, weren't given to the same aversions as their military counterparts.

The "public" to which Brodie refers in 'The Development of Nuclear Strategy' was in fact made up of the relatively small group of "civilian defense-intellectuals" mentioned by Kaplan. As Kaplan also intimated, these were precisely the people who participated in and set the tone and direction of the "defense debate". It was important to attract the attention of these people in the lead-up to the 1960 Presidential elections during which the "missile gap" and scares of vulnerability would be exploited by "Democratic presidential hopefuls" and successfully so by the Kennedy campaign. It is interesting and significant that, not long after the publication of the article, Wohlstetter became part of a small group of RAND strategic theorists who were "surreptitiously" helping the Kennedy presidential campaign and using the "missile gap" to present an image "of a sagging defense posture" overseen for eight years by a "complacent Republican Administration". Wohlstetter, Rowen and Hoffman belonged to this group whose members "[B]eginning late in 1959, on the firm condition that their involvement not be revealed to anyone outside the campaign...regularly passed along ideas and helped draft speeches for the Kennedy brigade." Even before this, Senator Kennedy had been whipping up panic about the "missile gap" on the floor of the Senate and elsewhere. A number of the RAND strategists were later to join Robert McNamara's Department of Defense, much to the chagrin of the Air Force and SAC military planners.

However, the important point to be made here is that Wohlstetter's frustration with the intransigence of the military planners, which caused him to seek the backing of Eisenhower's likely successor as President, is reminiscent of the tenor of the complaints of Brodie and Schelling that were cited in the Introduction to the thesis. There it was seen that in the late 1940s Brodie publicly expressed his

107 Kaplan, op. cit., pp. 248-250
concern that strategy hadn’t been receiving the scientific treatment it deserved -- a
result he thought of the military profession’s lack of a “genuine understanding” of
the requirements of military strategy. Again in *Strategy in the Missile Age* and
much later in ‘The Development of Nuclear Strategy’ Brodie drew attention to the
failure of the “military people”, especially those responsible for designing war
plans, to accept the advice of the civilian strategic theorists who apparently did
have a proper or “correct” understanding of the requirements of military strategy
in the nuclear age -- on the grounds that they were too “defensive-minded”. As for
Schelling, he had argued in the late 1950s that “deterrence” involved the “non-
use” of military force and therefore required skills quite different from those
possessed by members of the military profession who were chiefly concerned with
the “application” of force. These views of the contrast between the military and its
methods and those of the strategic theorists provide important clues as to how the
strategic theorists identified themselves and their work. They also suggest that the
deterrence paradigm was consciously developed in direct and stark opposition to
the intellectual framework of the military planners. These issues will be taken up
at greater length below, and in the following chapter where the systematisation of
deterrence theory and institutionalisation of the discipline of strategic studies in its
first 15 years or so are studied.

5.6 Vulnerability, the ‘balance of terror’, and deterrence theory

Vulnerability to surprise attack became in the later 1950s the commanding idea of
the American strategic theorists, the idea that bound them together into an
academic community because it set them apart and sharply differentiated them
from the policy makers and, more importantly, the military planners. The
theorists’ notion of, and preoccupation with, vulnerability was in accord with their
concept of “deterrence” -- and equally out of keeping with that of the policy
makers and military planners. “Vulnerability”, as the theorists understood it, was
such an important factor because they began with the assumptions that the sole
purpose of (American) nuclear weapons was “deterrence” and that the only way to
deter a Soviet surprise attack was to have a well-protected second-strike or
retaliatory force permanently at the ready. These were the essential elements of
the concept of "deterrence" which Bernard Brodie had introduced way back 1946. It was not surprising, then, that Brodie thought that Wohlstetter's article was an "incisive and well-informed discussion" of the problem of securing the retaliatory force against attack--even though (perhaps because) he knew that, as seen above, it was completely out of step with the "preparations and concepts" for use of the "retaliatory force".108

Echoing the sentiments of Wohlstetter, Brodie remarked that "...our ability to retaliate in great force to a direct Soviet attack is taken far too much for granted by almost everybody, including our highest national policy-makers." Those "charged with defense planning", according to Brodie, should have informed the policy makers of the difficulties that were attendant on developing the ability to retaliate effectively but had not done so because they "unconsciously" rejected the "concept of deterrence based on retaliation". Brodie had a number of explanations for this failure of the defense planners. He observed that an unwillingness to think in terms of the "enemy having the initiative", and a corresponding preference "always to think in terms of our having it", was an "age-old addiction of official war planners" (Brodie may well have had Curtis Le May in his sights here). Others, "more sophisticated" but no less complacent, believed that a force which allowed itself to be hit first would not have the strength to win a war--even if it had been well protected. Such people, thought Brodie, "...are by training, tradition, and often temperament interested only in strategies that can win." It was because of this, and to Brodie's obvious dismay, that they were "preoccupied" with pre-emption, a preoccupation which stemmed from the belief that only if the offensive force was launched before it was hit would it have any chance of winning. These addictions and preoccupations either made the war planners uninterested in "adjusting to a strategy of deterrence [based on retaliation]" or left them with the conviction that it was not possible to win a war with a force that was not strong enough to deter. In another veiled reference to the sorry plight of Wohlstetter's recommendations, Brodie observed that, underlying the planners' maladjustment to "deterrence" and its requirements, was the "...conviction that

108 Brodie, Strategy in the Missile Age, op. cit., note 4, p. 282
money spent on protecting the retaliatory force might otherwise have been spent on expanding it.”

Thomas Schelling also referred in fairly positive terms to Wohlstetter’s article. Like Wohlstetter, Schelling was concerned with the problem of vulnerability to first or surprise attacks. But before considering Schelling’s views on this matter, his conception of deterrence and its requirements needs to be briefly spelled out. This will reveal the resilience of the concept of “deterrence” which Brodie had launched in 1946 and the pervasiveness of Wohlstetter’s ideas on the “balance of terror”. According to Schelling, “[I]t is not our [the United States’] capacity to destroy Russia that deters a Russian attack against us, but our capacity to retaliate after being attacked ourselves”. A “balance of terror in which either side can obliterate the other” is different from one in which “both sides can do it no matter who strikes first”. The balance of terror is stable rather than delicate only when neither side “…in striking first, can destroy the other’s ability to strike back.” If the retaliatory forces were invulnerable to surprise attack—that is, “if each side were confident that its own forces could survive an attack, but also that it could not destroy the other’s power to strike back”—then, Schelling argued, “there would be no powerful temptation to strike first” and less need to respond promptly to what might turn out to be a false alarm. Schemes to protect the retaliatory force from surprise attack, which Schelling contrasted to other types of “disarmament proposals”, “are based on deterrence as the fundamental protection against attack” and “seek to perfect and to stabilize mutual deterrence -- to enhance the integrity of particular weapon systems”. He wondered whether “schemes against surprise attack” were the first steps along the road “toward more comprehensive disarmament in the traditional sense” or if, instead, they were “incompatible with other forms of disarmament”. And what of SAC? Could protecting it from surprise attack be regarded as a first step “toward its

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109 Ibid., pp. 282-283
111 Ibid., p. 233.
112 Ibid.
dismantlement”? If each side protected its capacity to “retaliating massively” (SAC, in the American case), and did so cooperatively “in the interest of mutual deterrence”, would the “threat of massive retaliation” in a “tense and troubled world” be eliminated?¹¹³ Schelling wanted to demonstrate that those people who ingenuously believed that disarmament measures could provide a means of escaping from the dangers of the ‘balance of terror’ were completely misguided, and in addressing these questions he cited Wohlstetter to prove his point.

Echoing the sentiments of Wohlstetter and Brodie, Schelling thought that his readers might in their naivety take it for granted that the “continuous invulnerability of our retaliatory forces is assured beyond any worry” and therefore believe that his discussion of vulnerability and surprise attacks was “correct in principle but uninteresting in fact”. To set them straight, he refers them to “Albert Wohlstetter’s cogent discussion in ‘The Delicate Balance of Terror’”.¹¹⁴ After being set straight by Wohlstetter, Schelling thought that his readers might be much less inclined to regard measures to safeguard the retaliatory forces of both sides from surprise attack as the first steps either toward their dismantlement or general disarmament. Rather they might more wisely see such measures as a “compromise” --

an implicit acceptance of “mutual deterrence” as the best source of military stability we are likely to find -- and a recognition that though we may not be able to replace the balance of terror with anything better, there may be much that we can do to make the balance stable rather than unstable.¹¹⁵

So, according to Schelling, the balance of terror could not be wished away or ignored. The best that could be hoped and prepared for was a more stable balance that was based on the acceptance by both sides of the need for mutual deterrence. He therefore was not in complete agreement with Wohlstetter. As seen above, in his article Wohlstetter had thrown cold water on the belief that in the 1960s it would be relatively easy to achieve a stable balance of terror, that mutual

¹¹³ Ibid.
¹¹⁴ Ibid., note 3, p. 234
¹¹⁵ Ibid.
deterrence was as much in the interests of the Soviet Union as it was for the United States, and that each would therefore take positive steps to ensure deterrence. His disappointment with the Eisenhower Administration and frustration with SAC and the Air Force caused him to exaggerate the difficulties in achieving even a stable deterrence and in ensuring the invulnerability of the retaliatory force.

Herman Kahn, like Wohlstetter, wondered whether the balance of terror could ever be anything but delicate. Kahn, who had also worked at RAND (and as consultant to the Gaither Committee), was a strong advocate of civil defence and limited war. But it is his views on the balance of terror which are most relevant and interesting here. Kahn cast doubt on the "widely accepted theory" that nuclear weapons, by their very existence, create a "reliable balance of terror". In the view of those who hold to such a view of nuclear weapons, remarked Kahn scornfully, "...as soon as governments are informed of the terrible consequences of a nuclear war, their leaders will realize that there can be no victors and, therefore, no sense to such a war." In short, "[A]ccording to this view, the very violence of nuclear war will act to deter it." But warned Kahn, carelessness on the part of the Soviets or Americans in the operation of their "alert forces" could conceivably create a situation in which war might start "...as a result of an accident, some miscalculation, or even irresponsible behavior." However, this was not the worst situation that could be imagined. Given the state of "current technology", commented Kahn gravely, "...there are plausible circumstances in which leaders might decide that war was their best alternative." There is little doubt that Kahn had in mind here the sort of circumstances, that Wohlstetter had described, in which the Soviet Union might seriously and rationally contemplate a first strike. It followed logically that, if the Americans believed that the Soviet Union was contemplating a first strike, then they too would sensibly prepare for striking

117 Ibid., pp. 220-221
first, and so on *ad infinitum*. If interpreted in this way, deterrence and the balance of terror were by their very nature unstable and fragile.

It was seen above that Schelling displayed marginally more optimism than either Wohlstetter or Kahn. He thought that an acceptance by both sides of the need for mutual deterrence could help in achieving a more stable balance of terror. However, like them he also argued that disarmament agreements would not bring the benefits that many expected of them. Commented Schelling, *[I]t is not a foregone conclusion that disarmament, in the literal sense, leads to stability.* Indeed, an arms race might have the effect of creating a more stable balance of terror than would a disarmament agreement. The logic of this view is very reminiscent of Wohlstetter’s reasoning. In a situation in which the two sides had equal numbers of missiles, the likelihood that each could wipe out the other’s arsenal would decline in proportion to the numbers of missiles held by both sides. If each side had small numbers of missiles, “a ratio of 2 or 3 to 1 may provide dominance to the larger side [and] a chance of striking first and leaving the other side a small absolute number for striking back.” Such conditions would not apply if, to begin with, both sides had larger numbers for then a ratio of something in the order of 10 to 1 would be needed for one side “to have a good chance of striking with impunity”. Where each side had equally large numbers of missiles the “tolerance of the system” would also increase: there would be no need for panic if one side fell behind “a little bit” and there was little prospect that either side “...could draw far enough ahead to have the kind of dominance it would need.” Thus, for Schelling, a disarmament agreement which permitted each side to have a larger number of missiles would be more stabilizing than one that restricted both to small numbers. The larger the number of weapons permitted, the greater the difficulty of either side “cheating, by disguising and concealing extra missiles, or breaking the engagement and racing to achieve a dominant number”. Seen in this light, an agreement between the Soviet Union and the United States to compete in arms race might be the most effective (that is, the

118 Schelling, *op. cit.*, p. 237
119 Ibid., p. 236
most stable and stabilising) “disarmament” agreement possible. This would have come as good news to the Air Force and SAC. Pre-emption for them was a necessary though not sufficient condition for the winning of a nuclear war. Winning also required an offensive force strong enough to eliminate the enemy’s capacity for retaliating. As the enemy’s capacity for retaliation increased, so would the offensive force have to become stronger. But as Schelling had argued, the stability of “deterrence” based on protection of the retaliatory capabilities of the strategic striking force also required large nuclear forces. Either way, then, SAC and the Air Force would be the winners— even if “deterrence” as the theorists understood it disqualified pre-emption.

This notwithstanding, Schelling’s claim that the strength and stability of a disarmament agreement would be in direct proportion to the number of weapons it allowed each side to have was a small concession to the planners for they, as Brodie had observed, were only interested in “winning” strategies, believed that the only way to win a nuclear war was by launching a pre-emptive strike, and wanted to ensure that the American offensive forces were large and powerful enough to do the job. Schelling’s analysis of “deterrence”, “vulnerability”, and the “balance of terror”, as with Wohlstetter’s, Brodie’s and Kahn’s was, accordingly, completely marginal to the practical concerns of the military planners. The planners’ “aversion” to the “defensive-mindedness” of the theorists and their “age-old addiction” to thinking in terms of always having the initiative, and the enemy not having it, were the main reasons that the strategic theorists remained marginal to the processes of formulating strategy, war planning, and policy making.

On the other side, of course, the “aversions” and “addictions” suffered by the military profession tended to be viewed with disdain and contempt by the theorists who regarded themselves as being free from and above these “professionally-induced” disorders. The theorists were thus able to identify themselves as a group apart from, and probably intellectually superior to, their military counterparts—in particular, those in uniform who were concerned with
strategic and war planning. In short, the theorists regarded themselves as better, more able, more discerning and more "scientific" nuclear strategists fundamentally because they understood or correctly assumed (as they saw it) that the chief purpose of American nuclear weapons was or should be to avert, rather than to fight and win, nuclear war. For the theorists, the military planners were such poor nuclear strategists precisely because they did not understand or accept this most basic precept of nuclear strategy which Brodie had first set down in public in 1946. It will be seen in the following chapter that, notwithstanding the aversions and addictions from which, as he saw it, the military profession suffered, Brodie did attempt to make the theorists' conception more consistent with the planner's--or, at least to demonstrate that they did not always and necessarily have to be diametrically opposed. This appears to have been motivated by a compulsion to demonstrate the military practicability of the theorists' conception. It will also be seen that, on the other side, Schelling laboured under no such compulsion--indeed, the reverse appears to have been the case.

For as long and in so far as they accepted the correctness of the precept that the purpose of nuclear weapons was to avert nuclear war, the theorists were in effect compelled also to accept the completely groundless assumption that it would be the Soviet Union, not the United States, which would initiate nuclear war. And this in spite of the fact that they clearly knew otherwise. Brodie's attempts to close the gap between the two conceptions of "deterrence" was a tacit acknowledgment that it might well be the United States which initiated nuclear war--as were his references to the aversions and addictions of the military profession. For his part, Wohlstetter's "surreptitious" support for the Kennedy campaign was obviously motivated by the hope that the new Administration would see the sense in a strategy of deterrence based on the preservation of the retaliatory capability of the strategic striking force and, accordingly, promptly move to satisfy the requirements of "deterrence" (in particular, by dealing with the vulnerability of the strategic air force). In the process he obviously hoped that the planners would be shaken out of their pre-nuclear torpor, and thus end the
frustration which he and the other theorists had had to endure for so long. This would amount to an official recognition of what the theorists had long maintained, namely, that the sole purpose of American nuclear weapons should be “deterrence” as they understood it. Thus the assumption that the Soviet Union rather than the United States would initiate nuclear war would cease to be groundless.

5.7 Conclusion

There is no doubt that Wohlstetter was one of the pre-eminent strategic theorists of the 1950s. However, much of his work had been prefigured or anticipated in the earliest writings of Brodie. This, coupled with Wohlstetter’s high standing within the community of strategic theorists at RAND, helped to ensure that Brodie’s pioneering work in strategic theory retained its currency and validity well into the 1950s and beyond. In the ‘Balance of Terror’ article Wohlstetter had stressed the point that the essential requirement of “deterrence” was that the strategic striking force be able to survive a surprise attack so that after being hit it retained the capability to deliver a crippling retaliatory second-strike—and, accordingly, also emphasised the importance of overcoming the problem of “vulnerability”. Speculating on the future requirements of “deterrence”, Bernard Brodie had first drawn attention to this requirement in The Absolute Weapon which was published in 1946.

Nevertheless, since Brodie had first written of the requirements of “deterrence”, a stable “balance of terror” had become more difficult to achieve. The instability of the balance was directly attributable to the precarious “vulnerability” of the American strategic air force. “Vulnerability” was now a “fact” of strategic theory, no longer a possibility thrown up by speculative strategic thinking. It wasn’t so much that Brodie’s ideas had become obsolete, they were simply in need of adjustment and updating to bring them into line with the strategic realities of the second half of the 1950s. The most significant and problematical of these strategic realities was that the Soviet Union had acquired a thermonuclear capability, and a capacity for waging intercontinental warfare (however rudimentary). Wohlstetter
adjusted the rather abstract concepts of “deterrence” and “vulnerability” to fit these new realities and also applied them to the weapons systems and basing modes which the United States then had programmed or planned to introduce and deploy. In the process he promoted “vulnerability”, which had been pretty much an ancillary concept for Brodie, to an importance and status within deterrence theory that very nearly put it on a par with “deterrence” itself.

As will be seen in the following chapter, through the 1950s speculative strategic thinking which Brodie had pioneered gave way largely to systematic theorising about the conditions and requirements of nuclear “deterrence”. R-266 and R-290 played no small part in this process. Their importance to the ongoing development of strategic studies resides in the part they played in the adaptation and further refinement of systems analysis and game theory for the analysis of the problems of nuclear strategy. In the wake of R-266 and R-290, the systematisation of theorising about nuclear strategy came in effect to mean the application of these techniques or tools to nuclear strategy. As deterrence theory was systematised and formalised so did strategic studies develop into a discipline in the policy or applied social sciences. Brodie himself had championed the systematisation and formalisation of strategic thinking—along the lines of neo-classical economics—in his 1949 article, ‘Strategy as a Science’. For the strategic theorists, strategy was, or should be a science and therefore couldn’t be left to “military people” whose training and traditions left them unable to cope with the intellectual demands of strategy.
CHAPTER 6

THE SYSTEMATISATION AND FORMALISATION OF THE THEORY OF NUCLEAR DETERRENCE
AND THE DEVELOPMENT AND INSTITUTIONALISATION OF THE DISCIPLINE OF STRATEGIC STUDIES

6.1 Preface

This chapter is concerned with analysing the systematisation and formalisation of the theory of nuclear deterrence. Systematisation and formalisation of the theory and development of the discipline of strategic studies were in fact one and the same process. The process of systematisation and formalisation was one which involved the employment of systems analysis in the analysis of the problem of how to reduce the “vulnerability” of American nuclear weapons in order to preserve their retaliatory capability so that they could fulfil their sole purpose, namely “deterrence”. This process also involved the use of game theory, a theoretical tool or model which the strategic theorists expected would improve their understanding of how threats to use, in other words non-use, of nuclear weapons would most effectively “deter” a Soviet nuclear attack. The theorists regarded game theory as a valuable aid in the skilful non-use of nuclear weapons. The systematisation and formalisation of the theory involved the application of systems analysis and the theory of games to the analysis of the problem of “deterrence” as conceived by Bernard Brodie in 1946. As seen in the last chapter, the move of “vulnerability” to the centre of deterrence theory, to become, indeed, a twin concept with that of “deterrence” itself, was a vindication of Brodie’s first foray into the theory of nuclear deterrence—which was, of course, the foray with which the theory actually began.

That “deterrence” was the sole purpose of nuclear weapons, that their role was to avert rather fight wars, was the assumption with which Bernard Brodie launched the theory of “deterrence”. The origins of the theory, and Brodie’s first publications in the theory, are analysed in some detail in section 6.3. At the end of
his career, and just before his death, Brodie passed judgement on his first conjectures and found that they had not lost their relevance and validity. Brodie’s final verdict on them will be considered in the 6.3, for it casts light on the opening and subsequent chapters in the development of the theory of nuclear deterrence—and on the legacy he left to later generations of strategic theorists. This section will also include consideration of some other well-known authors’ assessments of the legacy left to later theorists by Brodie in his earliest work. It will be argued that many of these assessments make the same mistake, that is, that they regard the early ideas on “deterrence” of Brodie as being “prescient” but not immediately influential on American strategy, for they were, according to these assessments, before or ahead of their time. They generally then go on to claim that Brodie’s ideas were validated, and therefore began to have a strong influence on American nuclear strategy, in the mid 1950s when “mutual deterrence” between the United States and the Soviet Union supposedly became a reality. As seen in Chapters 4 and 5, this is seriously to misjudge and exaggerate the impact of Brodie’s ideas on American policy makers and military planners, as it is to misjudge the influence of theorists like Wohlstetter who followed in his wake. However, what is definitely not at issue in this chapter is that Brodie’s earliest work exerted a powerful influence over generations of later strategic theorists.

It was because these later theorists adopted Brodie’s view of “deterrence” that they also were sidelined from the shaping and directing of American nuclear strategy. As suggested above, the systematisation of deterrence theory using systems analysis and game theory was in effect the systematisation of Brodie’s concept of “deterrence” (strategic studies was systematised deterrence). The systematisation of “deterrence” by the use of these techniques, then, could do nothing to alter what might be called the permanent “bridesmaid status” of the theorists. This raises the question of why the Air Force established the RAND Corporation in the first place and then continued to fund the research undertaken by the strategic theorists who worked there. It will be argued in section 6.5 that this had a lot to do with the kudos earned by the Air Force for its employment of scientists, who were drawn from the “hard” sciences and the social sciences (in
particular, economics), to analyse and seek innovative solutions to the compelling problems of national security. However, the Air Force made no commitment or pledge to accept the advice that the scientists offered. This applied in particular to the social scientists, who could offer little in the way of assistance on the “nuts and bolts” of bombers, bombs and their support systems. As will be seen, this puts the frustration experienced by Wohlstetter into perspective. It also casts light on Brodie’s observation cited in Chapter 4 that the military (obviously he had the Air Force very much in mind) was strictly a customer, and a very selective one at that, of the ideas of the civilian strategic theorists.

The theory of deterrence was, then, congenitally, even if not to begin with consciously, at odds with the military planners’ view of the purposes and uses of nuclear weapons. The more that the theorists worked for the strategists and planners—which the RAND Corporation enabled them to do -- the more they became conscious of the width of the gulf between theory and practice. As argued in the Introduction, with consciousness of difference came belief in the superiority of civilian strategic theorists over their uniformed counterparts. Consciousness of difference and belief in superiority were thus two crucial factors in the development of the theory of nuclear deterrence and the discipline of strategic studies. As seen in the last chapter, Wohlstetter’s experience with the R-266 and R-290 studies suggests that frustration with the intransigence and backwardness of the Air Force, and SAC, may also have contributed to feelings of superiority. Perhaps those feelings were simply a tacit acknowledgment of the strategic theorists’ lack of influence on nuclear weapons policy and strategy and some sort of attempt to compensate for it. In any event, as was seen in the Introduction and Chapter 5, Brodie and Schelling certainly believed in their own superiority.

As will be seen in section 6.4, tactical nuclear weapons—which were first deployed in Europe in 1952--presented deterrence theory with a thorny and difficult problem and this was because the theory regarded the sole purpose of nuclear weapons as being “deterrence”. The nub of the problem was that tactical nuclear weapons seemed much more like conventional armaments than did their
larger, "strategic" counterparts, either nuclear or thermonuclear. For this reason they appeared, at least at first sight, to be much more useable than the big bombs, particularly in so-called limited wars. Brodie’s and Schelling’s views of the 1950s on tactical nuclear weapons and limited war will be reviewed below for they reveal the constraints and difficulties which deterrence theory faced in dealing with them. As already suggested, these difficulties and constraints were very much a product of the limited purpose which the theory imposed on nuclear weapons. In the end, Brodie and Schelling showed that the theory of nuclear deterrence could accommodate the problems presented by tactical nuclear weapons and limited war. This accommodation allowed the theory to develop without an accompanying change in the concept of "deterrence" upon which from the outset the theory had been based.

In section 6.4 it will also be seen that Brodie was acutely conscious of the vast difference between the theorists’ and the military planners’ notions of "deterrence", that is, of their understanding of the purpose of nuclear weapons. In Strategy and the Missile Age he attempted to make the theorists’ conception more consistent with the planners’. It will be argued that his attempt to make two conceptions more consistent with one another was motivated by a desire to show that “the gap” which separated the theory from the practice of “deterrence” was not as unbridgeable as it first appeared to be, and that the theorists, therefore, need not left out on the nuclear weapons policy and strategy limb where they had been since 1946 when he first published his recommendations on what the proper purpose of nuclear weapons should be. Importantly, in attempting to bring the two conceptions of “deterrence” closer together Brodie did not cease to believe in the soundness and correctness of his own conception. It will also be argued that unlike Brodie, Schelling in the Strategy of Conflict was not at all prepared to come to terms with the military planners, nor to make any concessions to them. This can be traced back to his belief, apparently more unshakeable than Brodie’s, that, on the one hand, the theorists’ concept of “deterrence” rested on genuinely scientific foundations and, on the other, that the traditional skills of the military profession had become obsolete in the nuclear era, primarily concerned as they were with the application of force.
There is no doubt that tactical nuclear weapons, and limited war, were a thorny problem for deterrence theory. However, as will be seen in sections 6.4 and 6.5 they were not during the 1950s its overriding concern. For one thing, the Korean War was the only “limited war” of any significance in which the United States became involved before Vietnam, and nuclear weapons had not been used in that war—for reasons which Brodie and Schelling argued were in many ways peculiar to that conflict. For another, and more importantly, the Air Force and SAC were far more concerned with the strategic rather than the tactical uses of strategic nuclear weapons in general rather than limited war between the United States and the Soviet Union. Because RAND was a creation of the Air Force, the concerns and interests of the Air Force and SAC set the terms (if not the terminology) and conditions of strategic theorising. This was so even though there was an unbridgeable conceptual abyss separating the theory from the practice of nuclear strategy, the deterrence paradigm from the intellectual framework of the planners. For their part, the strategic theorists were predominantly concerned with averting general war between the United States and the Soviet Union by the skilful non-use (as Schelling put it) of strategic nuclear weapons and their delivery vehicles. Thus, strategic studies during the 1950s was focused on problems associated with the strategic non-use of strategic nuclear weapons in order to avert general nuclear war with the Soviet Union. It should go without saying that if a situation arose in which nuclear weapons had to be used for retaliation then their non-use had not been successful, that is, it had not averted war. Their non-use required that they be able to withstand an enemy pre-emptive strike or surprise attack and retain their retaliatory capability in the process. Non-use then was a function of the “vulnerability” of nuclear weapons and their delivery vehicles.

It was noted above that the systematisation and formalisation of deterrence theory during the 1950s involved the use of systems analysis to determine the most strategically and cost-effective means of reducing the “vulnerability” of the retaliatory force—in other words, of preserving and optimising its retaliatory capability—and thus ensuring its non-use. It will be seen in section 6.5 that Wohlstetter’s reports set the standard for the use of systems analysis in the
analysis of this sort of strategic problem. The process of systematising deterrence theory also involved the use of game theory. Game theory, basically an abstract mathematical model (or "doctrine) was a tool or technique that its proponents and practitioners within the community of strategic theorists believed could be helpful essentially in improving the skills required for the effective non-use of nuclear weapons, namely, making credible deterrent threats, bargaining, and negotiation.

As will be seen in section 6.5, systems analysis was chiefly concerned with calculating or estimating the efficiency and cost-effectiveness of competing weapons systems, so it provided a vehicle for the direct application to strategic analysis of those branches of economics which employed quantitative and mathematical methods (especially but not exclusively neo-classical economics and econometrics). Game theory's usefulness to strategic analysis also relied on economics. To be at all useful in the study of rational behaviour (that is, decision making) in competitive or conflict situations such as the economic marketplace or international relations the values of each of the players or opponents (in the first case buyers and sellers, in the second states) first had to be quantified for otherwise there would be no basis on which to calculate the "payoffs" (outcomes) received by each player as a result of the choices they had made. This is where economics entered the picture. Game theory regarded states as rational self-interested value or utility maximizers, in very much the same way as classical economic theory regarded consumers and suppliers. Beyond this basic assumption, neo-classical economic theory, which emphasised the importance of mathematics to rigorous economic analysis, enabled the values/utilities of players/opponents to be measured and quantified thus providing the numbers to be inserted into the matrices that are conventionally employed in game theory and expositions of it.

In the end, therefore, the supposed usefulness of game theory to strategic analysis, as with systems analysis, resided in its ability to quantify, and hence help rank in order of preference, the choices and options confronting the policy maker. As will be seen below, and as suggested in the Introduction, game theory was an extremely important element in the deterrence paradigm, because it was able to
accommodate without difficulty all of the assumptions that lay behind the theory of nuclear deterrence and the paradigm itself. The use of game theory by the strategic theorists was, then, not only a cause but also a measure of the extent of their detachment from the actual concerns of the military planners. For the moment, however, it is the origins of the theory of nuclear deterrence that are of greatest concern. An examination of the origins of deterrence theory begins with the Brodie's earliest writings on the theory. As noted, these writings exerted a powerful influence on all subsequent work in deterrence theory.

6.2 Brodie and the origins of the theory of deterrence

In 'The Development of Nuclear Strategy' (1978), Bernard Brodie reflected on the seminal role he had played in founding the theory of nuclear deterrence. In the 1978 paper, Brodie insists (rather clumsily) "[T]hat concept was put forward almost at once at the beginning of the nuclear age that is still the dominant concept of nuclear strategy -- deterrence." He observes that at that time he was one of the few civilians who were "interested in military strategy". He goes on to claim that it therefore "fell" to him in the autumn of 1945 "...to publish the first analytical paper on the military implications of nuclear weapons". That paper, 'The Atomic Bomb and American Security' was included in "expanded form" in The Absolute Weapon, and appeared there as the first two chapters.¹

It is interesting to compare 'The Atomic Bomb and American Security' with the version of it which was published in The Absolute Weapon. This comparison will show that "vulnerability" emerged as a problem in deterrence theory at a very early stage but also that it was only with Wohlstetter that it became a central concept, and problem, in the theory. In 'The Atomic Bomb and American Security', Brodie gives an early and very tentative formulation of the concept and requirements of deterrence:

If the atomic bomb can be used without fear of substantial retaliation in kind, it will clearly encourage aggression...however, it seems hardly likely, at least as

among great powers at some distance from each other [such as the United States and the Soviet Union], that an attack can be so completely a surprise and so overwhelming as to obviate the opponent’s striking back with atomic bombs on a large scale. For this reason, the atomic bomb may prove in the net a powerful inhibition to aggression. It would make little difference if one power had more bombs and were better prepared to resist them than the opponent. It would in any case undergo tremendous destruction of life and property.2

There are a number of points made by Brodie in this paragraph which are worthy of mention. He deals only cursorily with the possibility that atomic weapons might have aggressive uses and gives short shrift to the idea that a surprise attack could be so completely destructive or disarming of the opponent’s retaliatory capability as to prevent the opponent from striking back and causing “tremendous destruction”. By implication, therefore, there would be little point in ensuring that the retaliatory force was protected from enemy surprise attack. In other words, “vulnerability” was virtually a non-issue at this, the earliest stage in the development of the theory of nuclear deterrence. But Brodie is obviously enchanted with the idea that “deterrence” was the sole purpose of atomic weapon, that is, that their role was to act as a “powerful inhibition to aggression”. This idea would remain a fundamental tenet of deterrence theory for many years to come. The theory’s irrelevance to the concerns of the policy makers and the military planners was, then, congenital and chronic.

2 Brodie, ‘The Atomic Bomb and American Security’ in Philip Bobbitt, Lawrence Freedman and Gregory F. Treverton (eds.), US Nuclear Strategy: A Reader, MacMillan, Basingstoke and London, 1989, p. 77. Jacob Viner, one of Brodie’s mentors (and Professor of Economics at Chicago), also made his own, very early contribution to the theory of nuclear deterrence. Like Brodie in his earliest conjectures on nuclear strategy, Viner believed that “[T]he atomic bomb makes surprise an unimportant element of warfare” and this because “[R]etaliation in equal terms is unavoidable and in this sense the atomic bomb is a war-deterrent, peace-making force.” Jacob Viner, paper read to a conference on the control of atomic energy held at Chicago University, September 19-22, 1945 cited in Fred Kaplan, The Wizards of Armageddon, Touchstone Books [Simon & Schuster], New York, 1983, p. 27. Viner thought that cities were the obvious targets for surprise atomic attack. In a slightly later article he argued that it would therefore be unlikely that atomic weapons and their delivery vehicles would be stored at such vulnerable locations. Rather, they would be dispersed to remote, inaccessible, and therefore invulnerable locations. He also thought that they would be tightly guarded against “surprise attack” using other forces such as paratroopers. Thus for Viner, like Brodie, “deterrence” was the sole purpose of atomic weapons, and vulnerability was not then an issue. See Jacob Viner, ‘The Implications of the Atomic Bomb for International Relations’ in Bobbitt et al. op. cit., especially pp. 54-57. This article was first published in Proceedings of the American Philosophical Society, 90 (1), January, 1946.
The casual, even dismissive, attitude to the problem of vulnerability that was displayed early on by Brodie (and Viner) was not of long standing in the theory of nuclear deterrence. In *The Absolute Weapon*, in which ‘The Atomic Bomb and American Security’ was published in “expanded form”, Brodie had suddenly awakened to the magnitude of the problem. Even though it was Albert Wohlstetter who in the 1950s ensured that vulnerability would become the *idee fixe* of deterrence theory, the essential groundwork for this conceptual development in the theory of nuclear deterrence—if that is what it can be called—had been laid by Brodie in 1946. The significance of Brodie’s analysis of the problem of “vulnerability” in *The Absolute Weapon* should not be underestimated. It not only introduced the concept but also showed that the problem of vulnerability arose only if it were first assumed that the sole purpose of nuclear weapons was “deterrence”. Nevertheless the concept was then for Brodie essentially a peripheral one. His analysis was mostly speculative and conjectural. It did not directly apply the concept of “vulnerability”, or even that of “deterrence”, to actual weapons systems and basing modes, as did the analysis developed by Wohlstetter in the course of the mid to late 1950s. Moreover, for Wohlstetter a Soviet thermonuclear capability and capacity for waging intercontinental warfare were facts rather than distant possibilities.

Brodie began a pivotal paragraph in *The Absolute Weapon* by insisting that “...the first and most vital step in any American security program for the age of atomic bombs is to take measures to guarantee to ourselves in case of attack the possibility of retaliation in kind.” There follows one of the most oft-quoted passages in the literature on deterrence. The essential point of that passage was that the American “military establishment’s” primary role was no longer to win wars, rather its “chief purpose” now was to avert them. In the atomic age, thought Brodie, the military establishment “…can have almost no other useful purpose.”

As noted in Chapter 4, Brodie had observed in the 1978 article that this was a

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4 Ibid.
radical -- and militarily unappealing -- redefinition of the military's main mission. This helped to explain why in the military's view deterrence was merely a by-product, not the central theme, of the strategic structure within which it worked. Notwithstanding the importance of this point, more significant here is the fact that Brodie also directly addressed the problem of vulnerability.

He did this in the context of considering how the security of those states which cannot protect themselves against atomic attack might be assured or strengthened. He made the pretty obvious point that only a "great state" which has reduced its own "direct vulnerability" would be in a position to offer the "necessary support" to those states which were unable to look after themselves. For a great state as with any other, one way of "reducing vulnerability" to an atomic bomb attack would be to convince a "potential aggressor" that such an attack could not be launched without facing the prospect that serious consequences would follow. Observes Brodie, if "technological realities" have made the "reduction of vulnerability" tantamount to the "preservation of striking power ", then "that is a fact which must be faced." Any domestic measures that have been taken by a great state to guarantee that its striking power will be preserved in the face of attack will also "...contribute to a more solid basis for the operation of an international security system." (Obviously, for Brodie a solid or stable international security system would be one that rested on nuclear deterrence.) Here was the very kernel of the theory of nuclear deterrence: by taking steps to ensure that the retaliatory force would not be vulnerable to enemy surprise atomic attack, the enemy would be deterred from launching such an attack in the first place. In short, deterrence was synonymous with the power to retaliate which, in turn, was synonymous with the invulnerability of the striking-back force. The invulnerability of the strategic striking force, that is, the preservation of its retaliatory capability, would obviate the retaliatory uses of nuclear weapons by the United States and the surprise or pre-emptive uses of such weapons by the "aggressor". This left the question of exactly what steps should be taken in order

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5 Ibid., pp. 76 and 77. Here Brodie may have been wondering, without saying it out loud, how the security of the European allies of the United States could be guaranteed in the event of the Soviet Union (the "potential aggressor") acquiring its own atomic weapons.
to protect the retaliatory or striking-back force from attack. As seen in Chapter 5, this was precisely the question with which Wohlstetter (and deterrence theory) later became obsessed.

Brodie had some of his own solutions to the problem of how to protect the retaliatory nuclear force. He pointed out that, "[T]he ability to fight back after an atomic bomb attack will depend on the degree to which the armed forces have made themselves independent of the urban communities and their industries for supply and support." With respect to the atomic retaliatory force in particular, Brodie reasoned (as had Viner) that the atomic weapons and their delivery systems would "...have to be maintained in rather sharp isolation from the national community". This "isolation" could be achieved by wide dispersal of the weapons away from cities, siting them underground in shelters (later, Wohlstetter's preferred option), establishing a secure and independent system of communications for command and control of the weapons, and granting the commander of the atomic force "sufficient autonomy of authority" to ensure that he is "...able to act as soon as he has established with certainty the fact that the country is being hit with atomic bombs." Without such a degree of autonomy, the force commander would be unable to act in the case of the prior elimination of the "supreme command". Brodie's reasoning here was founded on his belief that cities were the obvious targets for atomic attack. This belief was in turn based on the experience of strategic bombing with conventional and atomic explosives during the Second World War.

\[\text{6} \text{ Ibid., p. 88; emphasis removed}\]

\[\text{7} \text{ Ibid., p. 91. While protecting the retaliatory force in underground shelters was Wohlstetter's preferred option, a number of the other measures recommended by Brodie -- such as dispersal of the striking force -- were taken up by him. The only one which seems to have been completely ignored in Wohlstetter's reports was the granting of "sufficient autonomy of authority" to the force commander.}\]

\[\text{8} \text{ In Strategy in the Missile Age (The RAND Corporation, Princeton University Press, Princeton, New Jersey, 1959), Brodie observed that in World War II "...the purely strategic successes [of aerial bombing], however far-reaching in particular instances, were never completely convincing to uncommitted observers." Nevertheless, World War II was "...for all practical purposes, the only experience we have with strategic bombing. Small wonder that it has influenced importantly the ideas we still carry around on the subject, especially with respect to the amount of destruction necessary to win a war by strategic bombing." Ibid., pp. 107 and 107-108.}\]
According to Brodie, "[U]nder the technical conditions apparently prevailing today, and presumably likely to continue for some time to come, the primary targets for the atomic bomb will be cities." He went on to point out that "one does not shoot rabbits with elephant guns" especially when there are elephants "available" to be shot. The "critical mass conditions to which the bomb is inherently subject" meant that the destructive energy of the bomb would be wasted or used inefficiently on "...any target where enemy strength is not already densely concentrated." The advantage gained by the elimination of the enemy’s cities, said Brodie, would be "practically tantamount to final victory" -- if one's own cities were not "similarly eliminated". The issue of the elimination of the "supreme command", to which Brodie alluded above, was so significant precisely because cities were such obvious targets for atomic attack. The problem of the vulnerability of the supreme command was particularly acute for the United States. This was so because, the United States had "...concentrated in a single city not only the main agencies of national government but also the whole of the executive branch, including the several successors to the presidency and the topmost military authorities." While Brodie thought that the leadership would not be entirely eliminated in "one blow", nevertheless he did believe that "enough damage" could be done to "...create complete confusion in the mobilization of resistance." This was why he insisted that the force commander should have sufficient autonomy of authority to act even in the absence of explicit approval to do so from the highest military and civilian authorities.

The problem of vulnerability moved to the top of the agenda of deterrence theory during the mid 1950s, when pre-emptive counterforce targeting was becoming an increasingly dominant part of the planned atomic offensives against the Soviet Union that were devised by the military planners. The military planners assumed that their counterparts in the Soviet Union also gave top priority to the BRAVO mission. The strategic theorists shared this assumption but tended to overlook,

9 Brodie, 'War in the Atomic Age', in Brodie (ed.), The Absolute Weapon, op. cit., p. 46
10 Ibid., p. 47
11 Brodie, 'Implications for Military Policy', op. cit., p. 80. It is curious that Brodie did not consider the dispersal or protection of the top most military and civilian authorities as he had done for the atomic striking force itself.
downplay or ignore the high priority given the BRAVO mission by American planners. Working from the assumption that the sole purpose of American nuclear weapons was or should be "deterrence", the theorists were virtually compelled to react in this way. This did not, however, prevent them from giving some consideration to the consequences of the counterforce uses of nuclear weapons. Indeed, vulnerability became an issue only after it was first acknowledged that nuclear weapons and their delivery vehicles might themselves be targeted in a surprise atomic attack. That even as early as 1946 Brodie dimly understood this to be the case is apparent in some of his comments that were cited above. However, at this early stage this was not enough to dissuade Brodie from the view that cities were the prime targets.

In summary, then, in *The Absolute Weapon* Brodie asserted that atomic weapons had no useful purpose other than to avert war and argued that they could play this deterrent role only to the extent that measures were taken to guarantee retaliation in kind. Protecting the striking force would ensure that retaliation remained a viable option even after the enemy had launched an atomic bomb attack. The power of atomic weapons to deter a surprise attack was dependent on, or a function of, their retaliatory capability. Vulnerability would of course deny the atomic forces this capability. (This is the very idea which would so entrance Albert Wohlstetter.) Because Brodie still regarded cities as being the prime atomic targets, he thought that the vulnerability of the atomic forces was largely a function of their proximity to cities. However, in partial recognition of the possibility that the atomic weapons and their delivery vehicles might themselves be targeted, he suggested that a number of measures to protect the atomic forces be taken beyond their evacuation from cities. Accordingly, he recommended that the atomic forces be widely dispersed, that the bombers be placed underground in shelters, and that command and control systems be protected. This strongly suggests that he had recognised, even if only dimly, that air-atomic forces could be employed on counterforce missions. If employed on such missions they would deliver pre-emptive rather than retaliatory strikes. Certainly he was worried about the vulnerability of the American retaliatory forces to a Soviet first strike but it
would have taken little imagination on his part to realise that the Soviet nuclear forces could just as well be the targets of an American surprise "counterforce" attack.12

6.3 The enduring legacy of Brodie's earliest ideas on "deterrence"

This section will consider the influence on later strategic theorists of Brodie's earliest ideas on "deterrence". It will be argued that Brodie's influence was immense and enduring. It will also be argued that because of this, subsequent strategic theorists, as with Brodie himself, had virtually no influence over the shape, direction and development of American nuclear strategy. For Brodie, as for other strategic theorists such as Wohlstetter and Schelling, protecting the retaliatory capability of nuclear weapons and their delivery vehicles would deter an enemy first or pre-emptive strike. In other words, protection of the retaliatory capability would obviate any use of nuclear weapons by either side. It was a theory for and of the effective non-use of nuclear weapons. Thus, deterrence theory, and Brodie and his followers were congenitally and chronically irrelevant to the military planners.

In 'The Development of Nuclear Strategy' Brodie reflects on the analysis of the role of nuclear weapons which he had offered in The Absolute Weapon. In so doing he cites in full the passage mentioned above in which he contended that in the "age of atomic bombs" the chief purpose of the "military establishment" would be to avert rather than to fight and win wars. As noted, this is precisely the passage in which Brodie had asserted that the highest priority should be given to the adoption of measures to ensure that the United States possessed the capability

12 The foregoing analysis of Brodie's early ideas on vulnerability was in part motivated by Barry H. Steiner, 'Using the Absolute Weapon: Early Ideas of Bernard Brodie on Atomic Strategy', The Journal of Strategic Studies, vol. 7, no. 4 (December 1984), pp. 365-393. Steiner wonders in 'Using the Absolute Weapon' why Brodie continued to believe that cities were the prime targets for atomic attack even though he argued that moving the atomic forces from cities and protecting them were such important priorities. In answer to this query, Steiner makes the astonishing comment that this was "[P]erhaps because atomic forces were not yet even considered for use as retaliatory weapons (sic)." Ibid., p. 367. Unaccountably, it does not occur to Steiner that Brodie wanted the atomic forces to be "isolated" in the various ways he recommended in order to preserve their retaliatory capability and thus their ability to deter a surprise attack. In other words, Brodie recognised the possibility that the atomic forces might themselves be targets.
to retaliate in kind to an atomic attack. Brodie points out that included among the "requirements of deterrence" he had discussed in the "1946 essay" were "extraordinary measures of protection for the retaliatory force so that it might survive a surprise attack."\(^{13}\) As argued above, this strongly suggested that Brodie was from very early on worried about the issue of vulnerability and this because he recognised that the "retaliatory force" might be the target of an enemy surprise attack. It was also argued above that this was evidence that Brodie realised that the so-called "retaliatory force" would be able to serve other than deterrent purposes and retaliatory uses. It should not, however, be taken as evidence that Brodie was advocating the use of the "retaliatory force" for non-deterrent purposes. In this connection, he refers to an observation he made in the 1946 essay, namely, that "while the idea of deterrence per se was certainly nothing new...what was distinctively new was the degree to which it was intolerable that it should fail." The persistent fear of the consequences of atomic attack was such that there would be few occasions on which governments would be able to calculate correctly that the political benefits of war would outweigh its costs -- this they had often been able to do in the past.\(^{14}\)

According to Brodie, even though there had since 1946 "been much useful rumination and writing on nuclear strategy and especially on the nature of deterrence", the "national debates" on these issues had largely been preoccupied with three questions which all directly addressed the "issue of expenditures". The first of these looked at the problem of what "changing physical requirements" would ensure the "continuing success of deterrence", the second asked what sorts of wars nuclear deterrence actually deterred, and the third considered what role, if any, tactical nuclear weapons could be expected to perform. There was, however, a fourth question that was concerned with how a nuclear war should be fought in the event of the failure of deterrence, and what objectives should be sought in such a war. This question was not only "[F]ar down the course in terms of the public attention accorded it", it had been "almost totally neglected by civilian

\(^{13}\) Brodie, 'Development of Nuclear Strategy', *op. cit.*, pp. 65-66

\(^{14}\) *Ibid.*, p. 66
It seems Brodie believed that, because of the negligence of civilian scholars—that is, the civilian strategic theorists—it was virtually by default that the military was left on its own to deal with questions concerning the use of nuclear weapons. While he did not specify the actual questions these scholars were concerned with, it is apparent from his remarks that the scholars were the sources of the rumination and writings on nuclear strategy and deterrence of which he speaks. Evidently, the scholars also became involved in the national or public debates on the issue of expenditures—such as Wohlstetter had done in ‘The Delicate Balance of Terror’. In the paragraph following the one referred to above, the relevant sections of which were cited in Chapter 4, the picture becomes a bit clearer. There Brodie observed that deterrence was a by-product, not the central theme, of the strategic structure which the military planners inhabited. The military planners knew that concentrating on protecting the retaliatory capabilities of nuclear weapons in order to preserve their “deterrent” purpose, as stipulated by the strategic theorists’ concept and theory of “deterrence”, meant that the initiative would be relinquished to the enemy—pre-emption retained the initiative. What made matters worse for the military planners was that the strategic theorists were interested in the retaliatory capabilities of nuclear weapons only to the extent that these capabilities would deter a surprise attack and therefore obviate any use of nuclear weapons by either side. The strategic theorists were, in other words, interested in the non-use of nuclear weapons. Brodie is, therefore, certainly correct in pointing out that civilian scholars had neglected questions regarding the use of nuclear weapons, either pre-emptive or retaliatory. He had throughout his career largely neglected these questions himself. The odd thing in what Brodie says is the implication that the military planners were concerned with the uses of

15 Ibid.
nuclear weapons in a war brought on by the failure of deterrence. Brodie knew that the military planners were not predominantly interested in how nuclear weapons should be used in a war initiated by a Soviet renunciation or repudiation of deterrence for the obvious reason that any “failure of deterrence” of this kind would involve the retaliatory not the pre-emptive use of American nuclear weapons, in other words, a loss of initiative.

Brodie’s final commentary on his earliest work gives little idea of the reception it received beyond him declaring that “deterrence” remained the “dominant concept in nuclear strategy” from 1946 to 1978. However, Brodie’s admission a few pages later that “deterrence” was a by-product of the planners’ strategic structure strongly suggests that it was not the dominant concept in nuclear strategy as such. As seen in Chapters 4 and 5, pre-emption and counterforce targeting held sway in the policy making and strategic and war planning agencies of the American state (NSC, JCS, SAC, USAF). In the strategic and war planning agencies in particular, “deterrence” in the mid 1950s moved from being regarded as a largely unintended by-product of the planning for the pre-emptive counterforce use of nuclear weapons to being equated with pre-emption. A pre-emptive strike came to be regarded as the surest way of “deterring” or preventing a Soviet surprise, pre-emptive or first strike.
The above notwithstanding, if Brodie meant only that “deterrence” became and remained the dominant concept for the civilian strategic theorists (Brodie’s “civilian scholars”) who would work in and on the theory of nuclear deterrence, then he is certainly correct. But there remains a problem and this relates to the failure of Brodie -- especially when he is blowing his own trumpet -- clearly to distinguish American nuclear strategy itself from the conceptual strategy (deterrence theory) of the strategic theorists. This problem is not peculiar to Brodie’s reminiscences on his own role and influence at the beginning of the atomic age. Many other authors have similarly failed clearly to distinguish the nuclear “strategy” of the civilian strategic theorists, and Brodie in particular, from the nuclear strategy of the policy makers and military planners. (David Rosenberg is probably the outstanding exception to this general rule.) There are a number of factors which help to account for the uncertainty and confusion surrounding the role and influence of the civilian strategic theorists. Most important was that the “declaratory” nuclear weapons policy of the United States amounted to saying nothing openly or in public about nuclear weapons and their use. Second, the strategic theorists’ concept of “deterrence” was allowed, either by official design or default, to fill the void left by the silence of the policy makers and military planners and to become in effect the unofficial declaratory policy of the United States. Third, because a silent policy neither endorses nor repudiates anything, there was no official confirmation or denial that it was only unofficial policy. Under these circumstances, confusion and uncertainty had free rein.

Certainly, a great deal of confusion and uncertainty surrounds Bernard Brodie himself. He is usually praised for being a brilliant and “prescient” thinker and author then ruefully judged to be an uninfluential strategist. For those who hold to this view, while Brodie was the founder of “deterrence” he was unfortunately “before his time” and thus it was only later that his ideas began to have an influence on American nuclear strategy. The charge of lack of influence (really, immediate influence) and the commendation for “prescience”, usually issuing from the same author, are both based on the erroneous supposition that the United States only moved to adopt a policy of “deterrence” as prescribed by Brodie after
the United States and the Soviet Union had both acquired thermonuclear weapons and a capacity for waging intercontinental warfare, that is, in the mid to late 1950s. At this time, so the story goes, so-called “mutual deterrence” finally became a reality and, accordingly, the stability of the “balance of terror” and “vulnerability” became the main concerns of the strategic theorists -- as they supposedly did for the planners as well. On this view, then, Brodie was initially ignored by the policy makers and planners but later his ideas were validated and thus were enthusiastically endorsed and embraced, as were those of the strategic theorists who followed in his wake (such as Wohlstetter).

Desmond Ball is entirely representative of this view of Brodie and his ideas. According to Ball (who mentions Brodie and The Absolute Weapon in a footnote) the atomic bomb “generated a revolution in US strategic thought”. He observes that, “[T]he central strategic concept that emerged, and which went unchallenged for some three decades, [was] that of deterrence.” Ball makes it pretty clear that his remarks refer to strategic thought, and not American nuclear strategy itself, when he points out that the targeting and planned missions of the American strategic bombing force in the late 1940s and early 1950s “...reflected more the planning and practices of the 8th [Europe]and 20th [Asia-Pacific] Air Forces during the Second World War rather than any consideration of the requirements of nuclear deterrence.” Ball is at least partially correct. The requirements of deterrence did not dictate the targeting and planned missions of the American strategic bombing force (SAC) in the late 1940s and early 1950s. However, he might also have pointed out a) that SAC’s commanders by this time were concerned with nuclear pre-emption and counterforce targeting while those who commanded the 8th and 20th Air Forces in the Second World War had entirely different, that is, contemporary concerns and b) that the “requirements of deterrence” did not suddenly begin to dictate the “targeting and planned missions” of SAC after the early 1950s. In fact, the BRAVO mission was given higher priority.

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Nevertheless, Ball is much closer to the mark than the military historian Michael Howard who makes the outrageous claim that the US Joint Chiefs of Staff finally embraced the “logic of deterrence” as outlined by Brodie in *The Absolute Weapon* only after thermonuclear weapons had been developed and the Soviet Union had demonstrated in the mid-1950s that it had a workable intercontinental delivery system.\(^1\) As noted above, the mid-1950s was precisely that period in which the Joint Chiefs, SAC and the USAF fully “embraced” pre-emption and counterforce targeting—that is, when they moved farthest from the “logic of deterrence” which had been outlined by Brodie and were accordingly unconcerned with the “vulnerability” problem highlighted by Wohlstetter! This is the erroneous supposition that Ball also had made: to suppose that Brodie’s concept of “deterrence” became the basis of American nuclear strategy after the United States and the Soviet had both acquired hydrogen bombs and both had an intercontinental delivery system. It should also be mentioned, even if only in passing, that both Ball and Howard hold to technologically deterministic views of the development of American nuclear strategy: for them, new military technologies either generated revolutions in strategic thinking or else caused the military planners to undergo sudden and unexpected changes of heart. These views have to be rejected as untenable, naive and simplistic—and just plain wrong.

Alexander George and Richard Smoke also belong in the “prescient”—but-no-immediate-influence-camp. Like Brodie, they observe (in a footnote) that in the period 1945-1950 only a “few individuals” were “...concerned with the nature and requirements of deterrence.” George and Smoke mention in this regard *The Absolute Weapon* which they describe as a “prescient” book published in 1946 by a “group of social scientists led by Bernard Brodie”. Claiming bizarrely that *The Absolute Weapon* only “in part” discussed deterrence, they dismiss it as being “uninfluential”—presumably in the period 1945-1950.\(^1\) Barry Steiner is much more fulsome in his praise than George and Smoke, but he does not widely

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diverge from them. He observes that when Brodie first presented his ideas on the atomic bomb in public, "...there was little scholarly consensus about the weapon's impact or, for that matter, much scholarship on the subject." Thus not only was his contribution to *The Absolute Weapon* "very original" it also seems, says Steiner, "...remarkably prescient about such vital developments as access to plentiful supplies of fissionable materials, mobilization of standing high-readiness forces to deter attack, use of long-range strike forces as atomic carriers, and accumulation of nuclear weapons sufficient to cause unparalleled damage to countries electing to employ them militarily." Thus, for Steiner, as for Ball, Howard, and George and Smoke, Brodie was "prescient", even if not immediately influential, because he foresaw the developments in weaponry that would validate his ideas on "deterrence" during the 1950s.

While Colin Gray's judgement on Brodie is more complex and difficult than all of the authors thus far cited, for all intents and purposes he belongs in the same camp. Gray comments that in the first few years following the Second World War "prescient analyses of the meaning of atomic weapons for international politics" were written by a "handful of U.S. scholars" Of these, it was Brodie who set down with "admirable clarity" the basic requirements of a mutual nuclear deterrence policy. Nevertheless, "[B]ecause of the absence of official stimulus, the first wave of theorizing, in effect, left virtually no historical legacy of note." Indeed, says Gray, while *The Absolute Weapon* was "the book" on nuclear strategic thought of the early post War period, it was only "rediscovered" in the 1970s. Gray, as with the other authors, assumes that Brodie's earliest ideas on "deterrence" finally came into their own or were validated only after the United States and the Soviet Union both acquired hydrogen bombs and intercontinental bombers—that is, when "mutual deterrence" and the "balance of terror" became realities or *facts* for the theory of "nuclear deterrence". It is unfortunate that Gray does not account for the "lack of official stimulus" (whatever that means) for that would have explained why the "first wave" strategic theorists left no legacy of note. In any event, if Gray

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19 Steiner, op. cit., pp. 366 and 383
means that Brodie left no "historical legacy of note" to the military planners and nuclear strategy itself then he is correct. However, if he means that Brodie left no historical legacy whatsoever then he is absolutely wrong -- his legacy was the concept and theory of "nuclear deterrence" which he left to subsequent generations of strategic theorists. When Gray claims that *The Absolute Weapon* was only "rediscovered" in the 1970s it is not clear whether he means by strategic theorists, military planners, policy makers, or all three groups. In any case, he is wrong as the views of Roman Kolkowicz, which conclude this section on Brodie's legacy, make abundantly clear.

According to Kolkowicz, Brodie "...was a pioneer of modern strategic studies in the nuclear era whose work has powerfully influenced generations of strategists and decision makers." Brodie, says Kolkowicz, "perceived" and "publicly articulated" the "revolutionary implications" of nuclear weapons, and was the first to do so. However, according to Kolkowicz, Brodie's "revolutionary formulation of the nuclear condition and his advocacy of a deterrence-only, nonmilitary use of nuclear weapons" did meet with resistance. "Influential insiders" (such as Paul Nitze, whose views were cited in Chapter 5), dismissed Brodie's belief that "meaningful victory" in a war fought between the United States and the Soviet Union would not be possible when the latter had achieved "rough parity" with the former. The views of these insiders "reflected" those of the "political and military mainstream in the United States at the time". Kolkowicz has nearly struck the perfect balance. He correctly asserts that Brodie's views on "deterrence" and the military non-use of nuclear weapons influenced generations of strategic theorists. But he makes no bones about admitting that the policy makers and military planners were not nearly as receptive either to the views of Brodie--or those of the many later strategic theorists to whom he passed on his ideas. One might well ask, then, where the generations of "decision makers" were to be found, but this is

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21 Roman Kolkowicz, "Introduction" in Kolkowicz (ed.), *The Logic of Nuclear Terror*, Allen & Unwin, Boston, 1987, pp. 3-5. According to Kolkowicz, Brodie's ideas on "deterrence" finally found a receptive audience in Defense Secretary Robert McNamara and his advisors during the 1960s -- a highly contentious claim -- but were rejected by James Schlesinger when he became Secretary of Defense in the early 1970s -- not such a contentious claim.
only a trivial and carping question that should not be allowed to detract from the astute assessment of Brodie’s legacy which Kolkowicz presents.

In the mid to late 1950s Brodie’s earliest ideas on nuclear deterrence, and prescriptions for a workable and effective deterrence policy, were fully validated and given added force and urgency, at least as far as he and the other strategic theorists were concerned. This was in no small part due to the explosive entry of deliverable thermonuclear weapons onto the strategic scene, the arrival of genuinely intercontinental “delivery vehicles” (that is, bombers, later ballistic missiles), and, most importantly, the acquisition by the Soviet Union of a capacity for waging intercontinental warfare with nuclear and thermonuclear weapons — however rudimentary and limited it was to begin with (the impact of the Sputnik shot should also not be forgotten). Wohlstetter’s bases studies, and the ‘Balance of Terror’ article, demonstrated the contemporary relevance of Brodie’s ideas and prescriptions by applying them to the powerful new strategic weapons systems that had become available since the beginning of the nuclear era. By highlighting the problem of the “vulnerability” of the American strategic striking force and pushing the idea that the Soviet Union might be planning a surprise attack, which for its leaders might be a “rational act,” Wohlstetter demonstrated the inherent instability of the balance of terror and the difficulty in achieving mutual deterrence. As seen in Chapter 5, the marginally less pessimistic Schelling thought that mutual deterrence was probably the most promising source of strategic stability that was available while for his part Brodie thought that too many people took for granted the ability of the United States to retaliate effectively to a Soviet attack. The other problem for Brodie was, of course, the American military’s lack of interest in retaliation. Some of Brodie’s remarks that are cited below would even suggest that he regarded the United States as being the major source of instability in the balance of terror. In any event, Herman Kahn also had grave doubts about the “reliability” of the balance of terror and, like Wohlstetter, thought that there could be circumstances in which the leaders of the Soviet Union might well regard war as the best or most “rational” course of action open to them.
In the 1940s and 1950s, then, the strategic theorists were predominantly concerned with the non-use of strategic nuclear and thermonuclear weapons in order to avert general nuclear war between the United States and the Soviet Union. This was so even though tactical nuclear weapons had entered the scene in 1952 and the Korean War had remained a so-called “limited war”, that is, one in which nuclear weapons, strategic and tactical, had not been used. The problem for the strategic theorists was that, as nuclear weapons of all types became more abundant through the 1950s, so did the likelihood of their use increase. As the likelihood of their use increased, so did the difficulties of keeping wars “limited” correspondingly intensify. The increased likelihood of the use of nuclear weapons and difficulties associated with “limiting” wars was also a result of the introduction of tactical nuclear weapons which, at a superficial level, more closely resembled conventional weapons than strategic nuclear weapons in that they appeared to be just as useable as the former. As nuclear weapons became more abundant and apparently useable so did the hope that “deterrence” would be their sole purpose appear to become increasingly forlorn. Thus the development of the theory of deterrence through the 1950s not only has to be set against the background of the advent of hydrogen bombs and intercontinental bombers, but also the arrival of tactical nuclear weapons, and the American experience in the Korean War.

6.4 Massive retaliation, tactical nuclear weapons and the theory of nuclear deterrence

The policy of “massive retaliation” was proclaimed in the wake of the Korean War. In announcing the policy, Secretary of States Dulles had declared that what he called “local defense” would henceforth be reinforced with the additional deterrent of “massive retaliatory power”. The crux of the speech was that the United States reserved the right to retaliate massively to less than massive aggression and did so reserve this right because “local defense” was by itself unable to contain Communist landpower. By reserving this right the United States
would have the flexibility to respond to aggression at places and with the means of its own choosing.

As seen in Chapter 5, the massive retaliation speech was unique for being an open and formal announcement of American declaratory nuclear weapons policy, an announcement, moreover, that gave a completely distorted view of the actual nuclear weapons policy of the United States. For the strategic theorists, the speech raised different problems. For them, the chief purpose of American nuclear weapons was to deter the Soviet Union from using its strategic nuclear weapons in a pre-emptive strike or surprise attack on the United States, in other words, to avert general nuclear war between the Soviet Union and the United States. Only strategic nuclear weapons were equal to the task of deterring the use of strategic nuclear weapons in pre-emptive strikes. But Dulles' speech implied that the United States would use the threat of massive retaliatory power to deter even local and limited aggression. Not only was this a function or purpose for which the American strategic striking force was neither designed nor suited, the threat also seemed to lack credibility -- would the United States really resort to an elephant gun to kill a fly? Was the threat of “massive retaliation” in response to any level of aggression for all intents and purposes, then, just a massive bluff?

In implying that the American response might be out of proportion to the scale of the provocation, Dulles deliberately left ill-defined the situations in which the United States would use nuclear weapons. This also suggested that there would be no occasions on which the United States would not consider using these weapons -- that they were, in effect, like any other type of weapon. What was most alarming about this, at least as far as the strategic theorists were concerned, was that United States policy on nuclear weapons was eliminating or blurring the distinction between conventional and tactical nuclear weapons and between the latter and strategic nuclear weapons. It also seemed to be easing the conditions under which it would be prepared to use nuclear weapons thereby making their use more likely, which was anathema to the theory of nuclear deterrence. Easing the conditions for use and blurring the distinction not only between conventional
weapons and nuclear weapons but also between small and large nuclear weapons raised the very real prospect that the United States would find it extremely difficult to keep any limited wars in which it became involved from expanding into general nuclear war. As will be seen, Brodie and Schelling thought that the conditions which obtained in the Korean War, and which they argued had led to nuclear weapons not being used there—that is, which kept the war “limited”—were peculiar to that conflict and therefore would probably not be replicated in the future. Brodie wished to preserve the distinction between conventional and nuclear weapons (tactical and strategic, nuclear and thermonuclear). This would he hoped be the basis on which the difference and distinction between the use and non-use of nuclear weapons could and would be preserved. Schelling, for exactly the same reason, emphasised the importance of preserving the distinction between conventional weapons and nuclear weapons as such. Common to their views on tactical nuclear weapons and limited war was the assumption that the overriding purpose of nuclear weapons was to avert general nuclear war between the United States and the Soviet Union.

In this section, Brodie’s general views on tactical nuclear weapons and thermonuclear weapons, and limited and general war, will be considered first for they put into perspective his opinions of the policy of “massive retaliation” and the American conduct of the Korean War. These views are to be found in *Strategy in the Missile Age*. It will be seen that, while Brodie worried about the implications of “massive retaliation” for the reasons given above, he was also exercised by a full awareness of the sharp divergences between the theorists’ and planners’ conceptions of “deterrence” and by the need, as he saw, it to make the theorists’ conception more consistent with the planners’ but to do so without so modifying the former that it simply disintegrated on touch. Schelling’s views on tactical weapons and limited war (in *The Strategy of Conflict*) will be considered in the light of Brodie’s ideas. Unlike Brodie, Schelling made no attempt to bring the two conceptions of “deterrence” closer together—indeed, he seemed intent on keeping them as far apart as possible.
The advent of thermonuclear and tactical nuclear weapons caused Brodie even more earnestly to insist than he had previously that "deterrence" should be the sole purpose of nuclear weapons. In the early 1950s, Brodie became disaffected with the war planning and target selection procedures of the Strategic Air Command. He accused SAC "of creating not a war plan but a 'war spasm'" and described as "orgiastic" the destruction which its strategic offensives would wreak. (Brodie obviously had in mind the single massive attack that was the centrepiece of SAC's "Optimum Plan"). He also wondered whether it would be possible to control a war fought with hydrogen bombs. It was because of his concerns with SAC's war plans and with the terrifying capabilities of, and consequences of the use of, thermonuclear weapons that Brodie turned to tactical nuclear weapons as a possible avenue of escape from the holocaust of thermonuclear war. He thought that tactical nuclear weapons might be able to serve as a "second line of insurance"—what was known in NATO circles as a "tripwire" and later as a "firebreak"—between the use of conventional forces and the resort to thermonuclear weapons. A 1953 RAND study on which Brodie had worked found that American cities had a greater vulnerability to attack with H-bombs than Soviet cities and recommended that the hydrogen bomb, which was soon to be tested, be used in a tactical rather than a strategic role in order to restrain the momentum to escalation. According to David Rosenberg, "[T]he study was widely briefed in the Air Staff and the Defense Department, but was not well received."
In *Strategy in the Missile Age* Brodie followed up on and revised some of his views of the early 1950s about tactical nuclear and thermonuclear weapons. He asserted that the ideas that there were "marked intrinsic differences" between tactical and strategic nuclear weapons and that tactical nuclear weapons were always smaller in yield than their strategic counterparts were "completely erroneous". He pointed out that there was no "military reason" for tactical weapons being of smaller yield than strategic ones. It was usually the case, said Brodie, that "...where a small weapon is good, a larger one is better, and the delivery of the latter is likely to be about as feasible and not much more expensive." Given that they could be "handled and delivered by the small types of combat aircraft", it was even possible to use "modern multi-megaton thermonuclear weapons" tactically. Brodie also thought the aiming of thermonuclear weapons could be just as accurate as the aiming of tactical nuclear weapons and pointed out that the "degree of hazard to one's own troops on the ground, if any are in the vicinity" could be controlled "by warning and by the distance of the bomb burst from their own lines." In short, asserted Brodie, "...no reason is to be found in economics or military science why tactical nuclear weapons must be predominantly of the smaller varieties, let alone exclusively so."  

Brodie was trying to disabuse his readers of the belief, which he thought to be widespread, that it would be easy to distinguish between the "...use of a nuclear weapon below some arbitrary limit of size and one well above that limit." It would be much easier, he observed, to distinguish between the use and the non-use of such weapons. Moreover, it would be an arbitrary imposition to restrict usage of nuclear weapons to the very smallest variety in tactical roles, not one for which the users would display an "automatic preference". This was because large nuclear weapons, in terms both of "military effort" and the use of

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26 Brodie, *Strategy in the Missile Age*, pp. 325-326
27 Ibid., p. 326
28 Ibid., p. 326
29 Ibid., p. 323
30 Ibid., p. 326
“fissionable material”, were more efficient than small nuclear weapons. The latter were in turn more efficient than conventional high explosive bombs. Thus, for Brodie, it would have been a mistake to regard limited wars as those in which nuclear weapons were only used tactically. Because there was no “intrinsic difference” between strategic and tactical nuclear weapons it would be impossible for each side to know whether the other was exercising restraint and attempting to keep the war “limited”. Therefore there would be no incentive for either side arbitrarily to impose a restriction on its use of nuclear weapons.

Brodie argued in *Strategy in the Missile Age*, that if the term “limited war” was to have “any meaning at all” then the “strategic bombing of cities with nuclear weapons” had to be “avoided”. He went on to point out that the term “...practically always connotes a war in which there is no strategic bombing between the United States and the Soviet Union.” Because strategic bombing entailed the use of the larger variety of nuclear weapons, including hydrogen bombs, the acceptance of the need to keep war limited was tantamount to “...agreeing not to use against our enemies the most efficient instrument of all, at least not in the most efficient way.” Similarly, agreeing to limit the use of nuclear weapons to the “smaller categories” in tactical roles in fact amounted to “...accepting further large sacrifices of efficiency.” However, as seen above, in spite of considerations of military and economic efficiency, there were in Brodie’s view no intrinsic differences between tactical and strategic nuclear weapons. Therefore there remained between the use and non-use of nuclear weapons, as he put it, a “...vast watershed of difference and distinction, one that ought not be cavalierly thrown away, as we appear to be throwing it away, if we are serious about trying to limit war.” Brodie thought that too many people had too quickly jumped to the conclusion, based on “far too little analysis of the problem”, that nuclear weapons “must be used in limited wars”. His own analysis of the problem

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31 Ibid., p. 310. Brodie warns that “keeping war limited will be difficult” and that, for the Americans, “…curtails our taste for unequivocal victory is one of the prices we pay to keep the physical violence, and thus the costs and penalties, from going beyond the level of the tolerable.” He adds, “[I]t is not the other way round.” Ibid., p. 314; emphasis added

32 Ibid., pp. 326-327

33 Ibid., p. 327
had demonstrated that any use of nuclear weapons in a limited war was fraught with immense risks and great danger. He was, however, prepared to concede that "perhaps" nuclear weapons would "have to be used in some situations". This concession came with the expectation (and qualification) that the terms in which these situations were "spelled out" would not be rendered meaningless as soon as "reciprocal", that is retaliatory, use became an issue.  

Efforts to keep wars limited and to maintain mutual deterrence revolved around the problem of how to impose effective restraints on the use of the strategic nuclear striking force: how deliberately to "hobble" a force that was already "mobilized" and which had to be kept at a high state of readiness in order that the enemy would be induced to "hobble himself to like degree"—in other words, "deterred". Thus, limited war, like nuclear deterrence, involved the skilful non-use of strategic nuclear weapons. But there were two main difficulties arising from any attempt to keep war limited. The first of these was the difficulty of "finding sanctions for keeping out of action, on a stable basis, just those existing instruments which from a strictly military point of view are far (sic) the most efficient." This was related to the problem that the strategic nuclear striking force (the most efficient instrument) tended "to be extremely vulnerable to attack while on the ground". This is extremely interesting, for Brodie invokes "vulnerability" to explain why keeping war limited would be so difficult to achieve. Brodie's point was that, because the strategic striking force was so vulnerable to surprise attack as it sat parked at the air bases, there would be an incentive to launch it in expectation of an attack or to pre-empt the enemy's first strike. As will be seen below, Brodie realised and wrestled with the attractions of the military planner's notion of "deterrence"—that is, that the only way to deter an enemy first strike was to pre-empt it—and at several places in Strategy and the Missile Age tried in various ways to make the strategic theorists' concept (that is, his own) consistent

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34 Ibid. p. 330. According to Brodie if "hostilities open without his [the enemy/the Soviet Union] using them [nuclear weapons], our government ought to be prepared to think twice about forcing the pace into the wide-open realm of nuclears." He doesn't mention that this flew directly in the face of NATO's refusal to renounce first-use, but does concede that "[I]n these matters it is always much easier to shift upward in level of violence than down." Ibid., p. 335

35 Ibid. p. 311; emphasis removed
with it. In the meantime, however, something needs to be said about why Brodie’s analysis of limited war hinged on the difficulties associated with keeping the strategic nuclear striking force “hobbled”, in other words, on its non-use. Why did he use the term “limited war” to refer specifically to a war in which there was no strategic bombing between the US and the Soviet Union and in which strategic nuclear weapons were kept under wraps? Why was he so preoccupied with strategic bombing and strategic weapons?

The picture becomes much clearer when attention is paid to SAC’s and the Air Force’s allocation of nuclear weapons, more particularly to the types of nuclear weapons they were allocated and the mission they were authorised to perform. David Rosenberg points out that Curtis LeMay, the Commanding General of SAC, did not accept the idea that SAC should be used in a tactical role, that is, for attacks against “battlefield targets”. Comments Rosenberg, “LeMay thus did not object when responsibility for retardation [the ROMEO mission] was progressively transferred to the American tactical nuclear forces assigned to NATO beginning in 1952”.36 As seen above and in Chapter 5, the policy of massive retaliation addressed itself to the containment of communist landpower and to the need for “local defense” to be reinforced, particularly in Western Europe. The reinforcement of “local defense” was greatly facilitated by a “...manifest willingness to use not only ‘massive retaliatory striking power’, but also tactical nuclear weapons.”37 While the deployment of tactical nuclear weapons to Europe had begun under the Truman Administration, it was only with the approval of NSC 162/2 as national policy on 30 October 1953 that the JCS received direct authorization from the high policy makers to plan to use nuclear weapons “in both limited and general conflicts”. NSC 162/2 included the

36 David Alan Rosenberg, “‘A Smoking Radiating Ruin at the End of Two Hours’: Documents on American Plans for Nuclear War with the Soviet Union, 1954-1955”, *International Security*, vol. 6, no. 3 (Winter 1981/82), p. 10. Rosenberg notes that, while the transfer to NATO of the responsibility for retardation was begun in 1954, “…SAC continued to claim a role in implementing the retardation objective through 1956, in order to maximize its allocation of nuclear weapons.” *Ibid.*

statement that "[I]n the event of hostilities, the United States will consider nuclear weapons to be as available for use as other munitions."

Thus, while NATO forces had responsibility for tactical nuclear weapons, SAC and the Air Force retained their control over strategic nuclear weapons. This helps to answer the question of why Brodie reduced his analysis of limited war to the difficulty of "hobbling" the strategic striking force. Writing in the mid 1960s Gene Lyons and Louis Morton note that, "[T]he major activity at RAND has been and continues to be assisting the Air Force to solve the problems involved in improving its existing weapons systems and selecting the most effective weapons systems and strategies for the future." Accordingly, the emphasis of the work done at RAND was on "problems of interest to the Air Force". RAND had done work "on a range of military conflicts such as limited war and counterinsurgency" but because the Air Force would "play only a minor role" in these, RAND's "major effort" was still in "strategic studies". While the strategic theorists at RAND, such as Brodie, had a completely different concept of "deterrence" from the military planners in SAC and the Air Force, and therefore could play only a minor role in improving and selecting weapons systems and strategies for it, nevertheless these organisations set the terms and conditions (if not the terminology) of the work the theorists undertook. This was particularly evident in Wohlstetter's work. Furthermore, because the Air Force and SAC did not have responsibility for tactical nuclear weapons and because they were chiefly concerned with the use of strategic nuclear weapons in general nuclear war between the United States and the Soviet Union, it was natural for Brodie, a RAND employee, to analyse the problem of limited war from an Air Force perspective.

38 Cited in Ibid., p. 31
39 Gene M. Lyons and Louis Morton, Schools for Strategy: Education and Research in National Security Affairs, Frederick A. Praeger, New York, 1965, pp. 250 and 251; emphasis added. In Strategic in the Missile Age, Brodie noted that "airmen" "...have always felt, with special justice since the atomic bomb arrived, that a total war [i.e., general nuclear war] would be primarily theirs to fight. A limited war, on the contrary, seems to throw the Air Force back into the unpalatable role of providing support to the ground forces [i.e., a tactical role]." op. cit., p. 316
Nevertheless, Brodie's association with the Air Force and SAC obviously gave him an insight into how the military planners in those two outfits conceived of "deterrence" and, therefore, just how different their conception was from his own. (There is evidence for this in some of his remarks in *Strategy in the Missile Age* that were cited in Chapter 5.) The problem of vulnerability loomed so large for him and the other strategic theorists precisely because "deterrence", as they conceived of it, relied on the protection from surprise attack of the strategic striking or "retaliatory" force. But Brodie knew that the Air Force and SAC were not interested in "vulnerability" as Wohlstetter understood it because they planned for the pre-emptive use of the strategic striking force. Indeed, for them, pre-emption obviated the problem of "vulnerability". Protecting the force against surprise attack thus made little sense to the Air Force and SAC. In the analysis of limited war and the problem of vulnerability he offered in *Strategy in the Missile Age*, Brodie showed that he was lured by the attractions of the planners' notion of "deterrence" -- that the only way to deter a first strike was to pre-empt it. As will be seen below, Brodie also argued that thermonuclear weapons increased the advantages of "going first".

Brodie demonstrated that he understood how the planners' notion of "deterrence" could offer an avenue of escape from the bind of "vulnerability" when he commented:

> We have to remind ourselves again of the great military advantage of striking first in a total war, or at least of not having our retaliatory craft caught motionless and exposed when the enemy strikes. Air Force officers are quite right in being preoccupied with this point. In peacetime they will continue to make all the preparations which they deem necessary, and which a sympathetic civil leadership will permit, to increase the speed and sensitivity of the trigger-action which sends the retaliatory force on its way. Increasing speed and sensitivity of response is one way to enhance the safety of that force; it is the most obvious, as well as the one most congenial to military doctrine.\(^40\)

\(^{40}\) *Ibid.*, p. 354; emphasis added. Earlier on Brodie had observed, "[S]o long as there is a great advantage in striking first, and under existing conditions the advantage would be tremendous, we must realize that even rational men could start a total war, and irrational men would need no such justification." *Ibid.*, p. 230
By “total war” Brodie obviously meant a general nuclear war between the United States and the Soviet Union. Because in such a war strategic nuclear weapons would be used, there would be a “great advantage” in going first for to do so would be the surest way of saving the “retaliatory craft” from the devastation that would accompany the pre-emptive use of these weapons by the enemy. In mentioning that there would also be an advantage, though one not as great, in not having the retaliatory force “caught motionless and exposed” (“vulnerable”) to an enemy strike, Brodie was evidently attempting to salvage his and the other strategic theorists’ concept of “deterrence” from irrelevancy and obscurity. By acknowledging the need to increase the “speed and sensitivity of response” of the “retaliatory force”, Brodie demonstrated that reducing its “vulnerability” would also preserve its retaliatory capability. In this way Brodie showed that the strategic theorists’ concept of “deterrence” could be made more consistent with “military doctrine” and therefore retain its relevance and validity—something which Wohlstetter had apparently been unable or unwilling to do. It will be seen directly that earlier in Strategy in the Missile Age, Brodie had likewise demonstrated that, by protecting the strategic striking force so that it would be able to retaliate effectively to an enemy attack—and thus to “deter” such an attack—it would be possible to have a force strong enough to deliver both a pretty effective first strike and a retaliatory or second strike. In this way he attempted to show that the seemingly divergent requirements of the strategic theorists’ and the military planners’ notions of “deterrence” could be satisfied in the one strategic striking force—if a little latitude were given by each side.

Brodie thought that thermonuclear weapons, despite first impressions and initial appearances, increased the advantage of going first. Because with thermonuclear weapons a “relatively small amount of retaliation would do a very large amount of damage” it could too easily be thought that both sides perhaps would be dissuaded from launching a surprise attack—each would wish to avoid the destruction attendant on retaliation. This view might give rise to the misguided belief that thermonuclear weapons could contribute to the stability of deterrence. However, this belief was misguided because the potentially stabilizing influence was “...
least partly offset by the fact that extremely destructive (*sic*) surprise attack upon
the opponent's retaliatory force is more feasible with thermonuclear weapons than
with the ordinary fission variety. Thus, using thermonuclear weapons first
would not only circumvent the vulnerability of the strategic striking force to a pre-
emptive thermonuclear attack but also make redundant worries about the enemy's
retaliation.

Throughout *Strategy and the Missile Age*, Brodie struggled to find common
ground with the military planners. He desperately wanted to show that his and the
other strategic theorists' concept of "deterrence" could be militarily practicable
and therefore acceptable to the planners. The struggle was at its most intense
when he discussed the implications of thermonuclear weapons. Brodie observed
that, while the military efficiency of thermonuclear weapons "increased the
vulnerability of the vehicles for delivering them", nevertheless it came with some
economic benefits. Their power made it "possible to reduce requirements for a
strategic bombing campaign in number of bombs delivered". There would be thus
less need to buy more bombers and missiles but a greater need to buy protection
for the bombers and missiles which the United States already possessed -- the
main theme of Wohlstetter's 'Balance of Terror' article. For Brodie, like
Wohlstetter, Schelling and Kahn, the "overriding consideration" was that the
United States was "committed to a deterrence policy". The "primary concern" of
this policy was with the "...survival of a retaliatory force of adequate size
following enemy attack."42

This discussion of the requirements of deterrence did not go very far beyond what
Brodie had said in 1946. However, since the power and efficiency of
thermonuclear weapons increased the advantage of going first (by largely
circumventing the problem of vulnerability) they raised questions about the
relevance and validity of the concept of "deterrence" he had introduced back then.
Brodie was also aware that "military doctrine" was inconsistent with his

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41 Ibid., p. 308
42 Ibid. p. 283
conception of “deterrence”. In analysing the implications of thermonuclear weapons, Brodie demonstrated that neither his nor the planners’ conception of “deterrence” had to be abandoned and that an invidious choice did not have to be made between them. He argued that, while a retaliatory force able to survive an enemy attack in sufficient size to launch an effective second-strike would not be the “best strike-first force that could be bought with the same money”, nevertheless it would be a “good strike-first force”. This was because “...any force will be stronger in attacking first than in attacking second.” This argument was quite clever and was obviously intended to silence the military critics of the strategic theorists’ conception of “deterrence”. The power and efficiency of thermonuclear weapons made it possible to reduce the requirement for larger numbers of bombers and missiles without a militarily unacceptable reduction in the ability of the striking force to deliver a devastating first strike. But protecting a striking force of a size similar to one able to deliver a first strike would ensure that it was able to retaliate effectively to an enemy attack. The requirements of the strategic theorists’ and military planners’ apparently inconsistent conceptions of “deterrence” could therefore be met in one fell swoop --if the theorists were willing to indulge the military’s preference for retaining the initiative and the planners were prepared to accept a slightly less-than-best strike-first force. While Brodie struggled to show that the strategic theorists’ conception of deterrence need not be inconsistent with the planners’, he seemed more concerned with the implications of the policy of “massive retaliation” for the use of nuclear weapons by the United States and on the future of limited war.

Brodie noted that at the end of the Second World War “strategic air doctrine was riding high”. This doctrine, which emphasised the predominance and effectiveness of strategic bombing, was given an enormous fillip by the atomic bombing of Japan. However, in a veiled reference to his own views on the policy of “massive retaliation”, Brodie observed that not long after the War the idea was “bruited about” that “perhaps atomic and especially large thermonuclear weapons made strategic bombing too effective, too tremendously destructive to be released

43 Ibid.
under any but the ultimate challenge." This idea was singularly unattractive to the Air Force which had "...lately won not only its separateness and its right to an independent mission but also the most favored position in the allocation of the defense budget."44 The Air Force's most favoured position was a product of the leading role it would play in a general nuclear war with the Soviet Union, a war which would have as its centrepiece, at least as far as the JCS, SAC and the Air Force were concerned, a strategic bombing campaign using large nuclear and thermonuclear weapons. Indeed, this was in effect the Air Force's "independent mission". In any event, Brodie implied in this quote that "massive retaliation" would be the appropriate response to the "ultimate challenge". What did he mean by "ultimate challenge"?

According to Brodie, "[N]o one has ever questioned the appropriateness of massive retaliation as a response to a direct attack upon ourselves [that is, the "ultimate challenge"])." Moreover, what he called "basic deterrence", that is, deterrence of direct, strategic, nuclear attack upon targets within the home territories of the United States "did not suffer from a problem with credibility. 45 Brodie also believed that there was little alternative to the policy of "massive retaliation" for Europe because this was the "next most important and critical area of the world as far as our defense obligations are concerned".46 But beyond these two exceptional cases Brodie thought that there was a credibility problem in threatening massive retaliation in response to "less than massive aggressions", especially outside of Europe.47 The use of the term "less than massive aggressions" indicates that Brodie was concerned with how the United States would conduct itself in limited wars. It should be recalled that Brodie used the term "limited war" to refer to those conflicts in which there would be no strategic bombing, and no use of large nuclear and thermonuclear weapons, between the United States and the Soviet Union.

44 Ibid., p. 316
45 Ibid., p. 273
46 Ibid., p. 252
Brodie pointed out that the Korean War had had "adverse effects" on "limited-war thinking" in the United States. Indeed, observed Brodie, the "most conspicuous result of the war in the field of American diplomacy was the Dulles 'Massive Retaliation' speech of January 1954". As seen above, Dulles had suggested in the speech that in future there would no occasion on which United States would not be prepared to use nuclear weapons. He had also effectively blurred the distinction between conventional weapons and tactical nuclear weapons, and between tactical and strategic nuclear weapons. Thus, Dulles implied that the United States may no longer have anything to gain from keeping wars limited and seemed intent on making nuclear weapons appear to be more useable than they had apparently been in Korea. But why had nuclear weapons not been used by the United States in Korea -- and what did the future for "limited war" look like?

In considering the reasons for the non-use of nuclear weapons in Korea, Brodie noted that one of the most important was the Joint Chiefs of Staff's belief that the "Korean aggression was a ruse by the Soviet Union with the sole object of causing us to commit our forces to the wrong theater while they made ready their major attack in Europe" and their fear that the Soviet Union might also mischievously provoke the outbreak of other "Koreas" along its periphery. The Joint Chiefs were anxious to ensure that the "relatively limited nuclear stockpile (sic)" be preserved for the "main show" in Europe. The other reasons were that there were believed to be no suitable targets for nuclear weapons in Korea, and the opposition of the allies, in particular Britain, to their use. Here Brodie struck a note of caution. He pointed out that each of these reasons arose from circumstances peculiar to the Korean conflict.

For one, there were no longer any grounds for worries about the limited size of the stockpile placing restrictions on use. Calls for the "liberal and almost indiscriminate use" of nuclear weapons in limited wars (presumably emanating from the military) reflected this expansion in the size of the stockpile and were

48 Ibid., pp. 316 and 317
49 Ibid., p. 318
based on the belief that they were almost a “free good, militarily speaking” (they were available in far greater numbers than bombers and other types of aircraft). Thus it was thought that, in the future, intervention in limited wars would be much less expensive if nuclear weapons were used than if they weren’t. Second, that nuclear weapons could be used tactically, that is, against battlefield targets, was much more widely understood and accepted by “military officers” than had been the case during the Korean War. Third, Brodie admitted ruefully, “[A]lthough a considerable residue of anathema and horror for the use of nuclear weapons remains in the world today it has been considerably eroded by repeated insistence, emanating mostly from the United States, that the use of nuclear weapons must be regarded as absolutely normal, natural, and right.”

Here was the nub of the problem. Limited war thinking had been so adversely effected in the United States by the experience of the Korean War that virtually all reservations and doubts about the utility and practicability of nuclear weapons had dissipated. Dulles’ massive retaliation speech was both symptom and cause of the decadence in thinking about limited war. Post-Korean War thinking about limited war also did not take into account the fourth major difference between the conflict in Korea and any limited war that might occur in the future: “nothing resembling an American monopoly of nuclear weapons remains”. In other words, what was often forgotten was that henceforth any use of nuclear weapons would almost inevitably invite or provoke “reciprocal” or retaliatory use. Brodie’s message was clear (even if implicit): the role of nuclear weapons was not to be used either tactically or strategically in limited or general war. Rather it was to prevent or deter the use of nuclear weapons. The role of nuclear weapons was essentially to ensure the non-use of nuclear weapons -- a point which Brodie had emphasised in 1946.

50 Ibid., pp. 319 and 320; emphasis added
51 Ibid., pp. 320-321. It appears that, while Brodie acknowledged that responsibility for the reduction in resistance to the use of nuclear weapons lay squarely with the United States, nevertheless he still believed a la Wohlstetter that blame for the instability in the ‘balance of terror’ was with the Soviet Union. He even claimed that it would be much easier to keep war limited if “we lived in a world in which there was very little incentive on either side, or at least on the Soviet side, for surprise strategic attack”. Ibid., p. 331, emphasis added. This is a clear indication of the power and pervasiveness of the doxa.
As seen above, Brodie believed that massive retaliation was an appropriate response to a direct attack on the United State and thought therefore that so-called “basic deterrence” did not lack credibility. It was therefore not surprising that he rejected a policy of “minimum deterrence”, that is, one which relied only on a “modest retaliatory capability”. However, Brodie went beyond this rather summary dismissal of “minimum deterrence”, and gave a number of specific reasons for his rejection. Here again he wanted to demonstrate that the planners’ and theorists’ notions of “deterrence” could be brought closer together and that one did not have to be discarded in favour of the other. According to Brodie, the reasons that “minimum deterrence” had to be rejected were that:

(a) it may require a large force in hand to guarantee even a modest retaliation; (b) deterrence must always be conceived as a relative thing, which is to say it must be adequate to the variable but generally high degree of motivation which the enemy feels for our destruction; (c) if deterrence fails we shall want enough forces to fight a total war effectively; and (d) our retaliatory force (sic) must also be capable of striking first, and if it does so its attack had better be, as nearly as possible, overwhelming to the enemy’s retaliatory force.52

Here Brodie effectively conflated the two conceptions of “deterrence”. Unlike “basic deterrence”, “minimum deterrence” would not allow even for “modest retaliation” in the event of an enemy first strike--and therefore could not be expected to deter such an attack in the first place. Taking up the line adopted by Wohlstetter in the ‘Balance of Terror’ article, Brodie argued that “minimum deterrence” was not an adequate response to the high level of motivation which the Soviet Union felt for attacking the United States. But he went beyond Wohlstetter and stipulated that the United States needed a force able to fight a total war if deterrence failed and also strong enough to deliver the enemy’s retaliatory forces a crippling blow in a first strike. Thus, in going beyond Wohlstetter, Brodie incorporated the planners’ conception of “deterrence” in his analysis of why “minimum deterrence” was inadequate. In short, “deterrence” by pre-emption and “deterrence” by threat of more-than-modest, that is massive,

52 Ibid., p. 277; emphasis added
retaliation could be achieved by one and the same strategic striking force. As seen above, protection of the force and thermonuclear weapons imbued the force with these dual, but apparently divergent, capabilities.

If at the end of the 1950s Brodie was intent on showing that the two conceptions of “deterrence”, and the divergent assumptions about the purposes of nuclear weapons on which they were based, could be brought together, then Thomas Schelling had other intentions. His discussion and analysis of tactical nuclear weapons and limited war were firmly and unshakeably based on the assumption that the role of nuclear weapons was to prevent the use of nuclear weapons and thus to avert war. As will be seen in the following section, it was Schelling’s belief that the sole purpose of nuclear weapons was to prevent or deter the use of nuclear weapons which underpinned his view that game theory could be a very useful tool in strategic analysis. This belief was also the basis of Schelling’s view that “deterrence”, which involved the skilful non-use of military force, required broader skills than those possessed by military professionals, who were interested almost exclusively in the application of military force. (The point has to be emphasised that Brodie never abandoned his belief in the correctness and validity of his own conception of “deterrence”, the conception which underpinned Schelling’s analysis--Brodie merely wanted to show that it need not open an unbridgeable chasm between the theorists and the planners, between the theory and the practice of “deterrence”.)

Schelling’s ideas on the purpose of nuclear weapons become clear in his analysis of questions to do with tactical nuclear weapons and limited war. In dealing with these questions, Schelling also considered the experience of the Korean War. He pointed out that the “geographical configuration” of Korea assisted in “defining the limits to war” and made “geographical limits” possible. However, he was more particularly concerned with why nuclear weapons had not been used in that conflict, in other words, why it had been a “limited war”. Here he was interested in the role of tacit bargaining and negotiation in keeping war in general, and the Korean War in particular, limited. Schelling thought that finding limits to war
"without overt negotiation" was a possibility — for example, gas had not been used in the Second World War as it had been in the First and war had been "limited" in Korea. Nevertheless, he cautioned that this gave no clues as to the probability "of successfully reaching tacit agreement". His analysis therefore merely sought a "...better understanding of where to look for the terms of agreement."\(^\text{53}\)

According to Schelling, the terms both of tacit agreements and those reached "through partial or haphazard negotiation" had to be qualitatively distinct not simply different in degree from the alternatives. The participants in agreements reached through "incomplete communication" had to be prepared "to allow the situation itself to exercise substantial constraint over the outcome". Co-ordinating the expectations of the parties to an agreement arrived through incomplete communication would perhaps be possible only if the outcome or "solution" discriminated against one or other of the parties or even involved ""unnecessary nuisance"" to both of them.\(^\text{54}\) Schelling gave substance to these rather general observations on the nature and terms of tacit agreements, and those reached through partial and haphazard negotiation or incomplete communication, when he pointed out that "[I]n Korea, weapons were limited by the qualitative distinction between atomic and all other [classes of weapons]". A tacit acceptance by both sides of limits on "size of atomic weapons or selection of targets" would have been much more difficult to reach and "stabilize". On this score, Schelling observed that "[N]o definition of size or target is so obvious and natural that it goes without saying, except for 'no size, on any target.'"\(^\text{55}\) As Brodie had argued,


\(^{54}\) Ibid. Schelling even thought it possible that "unilateral" (sic) rather than reciprocal negotiation could at times bring about the co-ordination of expectations of both parties. *Ibid.*, p. 79

\(^{55}\) Ibid., p. 76. In his analysis of limited war in *Strategy in the Missile Age*, Brodie expressed the opinion (p. 323) that, because it appeared unlikely that a "formal agreement" could be reached with the Soviet Union that set down "some rules for fighting limited wars", any agreement arrived at would have to be "tacit rather than explicit". Comments Brodie, "For research on how tacit agreements are reached, see Thomas C. Schelling, 'Bargaining, Communication, and Limited War', *Conflict Resolution*, 1 (March 1957), pp. 19-36; also the same author's 'The Strategy of Conflict', *Conflict Resolution*, 11 (September 1958), pp. 203-264." The first of these was included under the same title as Chapter 3 of *The Strategy of Conflict*, a "somewhat rearranged version" (Schelling's words) of the second as Chapters 4, 5 and 6 in the same book.
because there was no intrinsic difference between tactical and strategic nuclear weapons it was much easier to distinguish between the use and non-use of nuclear weapons than between the use of smaller varieties of nuclear weapons and the use of larger varieties.

In Schelling’s view, the development and availability of “small-size, small-yield” nuclear weapons meant that the technical characteristics and effects of nuclear weapons could no longer serve as criteria for “...treating nuclear weapons as peculiarly different from other weapons in the conduct of limited war.” If this were so, then neither could measures aimed at limiting war be based on these criteria. Thus other standards had to be found which would enable nuclear weapons to be distinguished from other types of weapons and wars to be kept limited. Observed Schelling, “[I]n the interest of limiting war or of understanding limited war, it may be necessary to recognize that a distinction can exist between nuclear and other weapons even though the distinction is not physical but psychic, perceptual, legalistic, or symbolic.”

Schelling’s point was essentially the same as Brodie’s, that is, that between the use and non-use of nuclear weapons there was a “vast watershed” of difference. Schelling, however, went beyond Brodie’s analysis by tackling front on the problem of the apparent blurring of the distinction between tactical nuclear weapons and conventional weapons. This was such a thorny problem precisely because it seemed to suggest that there was not as vast a difference between the use and non-use of nuclear weapons as Brodie imagined.

In analysing what Schelling referred to as the “limiting process” the important questions were: “where [did] limits originate in limited war, what makes them stable or unstable, what gives them authority, and what circumstances and modes of behavior are conducive to the finding and mutual recognition of limits.”

None of these questions assumed that there was a physical distinction between “nuclears” and other types of weapons and therefore did not focus on “weapons

\[56 \textit{Ibid.}, p. 256\]
\[57 \textit{Ibid.}\]
effects”. The answers to the questions lay in the power of tradition and in the importance of tacit bargaining.

According to Schelling, in limiting war, tradition mattered. “In fact”, argued Schelling,

what we are dealing with in the analysis of limited war is tradition. We are dealing with precedent, convention, and the force of suggestion. We are dealing with the theory of unwritten law--with conventions whose sanction in the aggregate is the need for mutual forbearance to avoid mutual destruction, and whose sanction in each individual case is the risk that to breach a rule may collapse it and that to collapse it may lead to a jointly less favorable limit or to none at all, and may further weaken the yet unbroken rules by providing evidence that their “authority” cannot be taken for granted.58

Thus, for Schelling, what made nuclear weapons different from other types of weapons wasn’t their physical characteristics or effects but a “powerful tradition” that they were different. What made tacit bargaining over the limits to be observed in war possible was this tradition which treated nuclear weapons as being qualitatively different, not just different in degree, from other types of weapons. The basic motivation behind measures to keep war limited was the desire to avoid “mutual destruction”. Implicit here was the assumption that ultimately the role of nuclear weapons was to deter or prevent the use of nuclear weapons and thus to avert general nuclear war between the United States and the Soviet Union and the “mutual destruction” it would wreak.

On this score, Schelling pointed out that there was no tradition for the use of nuclear weapons, as there was for bows and arrows, for example. The tradition, or “jointly recognized expectation”, was that bows and arrows would be used if it was expedient to do so. In sharp contrast, there was a tradition for the non-use of nuclear weapons. The jointly held expectation was that nuclear weapons “...may not be used in spite of declarations of readiness to use them, even in spite of

58 Ibid., p. 260
tactical advantages in their use.\textsuperscript{59} Unlike Brodie, Schelling was not prepared to come to terms with the military planners or to make any concessions to them. He must have known that there was no so-called "tradition" for the non-use of nuclear weapons, but the \textit{appeal} to tradition was intended to add weight to his argument or view that the role of nuclear weapons was not to be used strategically or tactically, in general or limited war, in a retaliatory or pre-emptive fashion (bearing in mind that protecting the retaliatory capabilities of nuclear weapons would obviate their retaliatory use). Rather, their sole purpose was to prevent the use, any use, of nuclear weapons. As far as Schelling was concerned, the chasm between the theory and the practice of "deterrence", the theorists and the planners, was yawning and unbridgeable -- and should remain that way.

In terms of Schelling's analysis and discussion, limited war was limited by the tradition for the non-use of nuclear weapons. This tradition \textit{was} the limit in and on limited war. The "fundamental characteristic" of this or any other limit in and on limited war was the "psychic, intellectual, or social characteristic" of being acknowledged by both sides as having some authority. The authority of the limits in and on limited war, derived "...mainly from the sheer perception of mutual acknowledgment, of a 'tacit bargain'". Thus, it stood to reason that the authority of a limit in limited war, that is, the extent to which each side could be confident in the expectation that the other would observe it, increased if neither side could be sure that an alternative could be found should the limit not be observed.\textsuperscript{60} This returned the analysis to the apparent blurring of the distinction between conventional and "tactical nuclears". Schelling noted that nuclear weapons were becoming "increasingly versatile". By this he meant there was a "rather continuous variation in the possible sizes of atomic-weapon effects, a rather continuous variation in the forms in which they can be used, in the means of conveyance, in the targets they can be used on, and so forth." The physical properties, capabilities and effects of nuclear weapons were therefore unable to provide a "focal point" for the expectations of both sides that a limit would be

\textsuperscript{59} \textit{Ibid.}

\textsuperscript{60} \textit{Ibid.}, pp. 260-261
observed. A limit that was set by choosing a particular size, form or conveyance of nuclear weapons would be a completely arbitrary one. Because there was a whole range of alternative limits, none more compelling or obvious than any other, neither side could confidently expect that the limit would be adhered to by the other. There was thus a need for “qualitatively distinguishable limits” that, moreover, enjoyed some kind of “uniqueness”. This need was particularly pronounced because the process of finding limits was generally one that involved “tacit maneuver and negotiation”. A “bargain” reached in the absence of “explicit communication” required a limit that possessed a quality that clearly distinguished it from the “continuum of possible alternatives”—otherwise neither side could have confidence that the other would acknowledge the same limit.61

A number of conclusions followed from this analysis of limited war, the limiting process, the power of tradition, and the role of tacit bargaining. The first conclusion was that there was a distinction between nuclear and conventional or non-nuclear weapons, and that this distinction was “...relevant to the process of limiting war.” Because this distinction resided in or rested on the authority or “mutual acknowledgment” of the tradition for the non-use of nuclear weapons, it could be strengthened or weakened, clarified or blurred. The strengthening or weakening of the tradition for the non-use of nuclear weapons evidently depended on how the United States behaved. According to Schelling, by acting and talking in a way “dramatically consistent” with the tradition “we” (that is, the United States) would strengthen it, and raise the “symbolic significance” of the distinction. On the other hand, behaving as though “we did not believe in it” would erode the distinction—“but not readily destroy it”. Which “policy” the United States should follow depended on whether it considered the distinction to be an “asset” that it shared with the Soviet Union, a “useful distinction, a tradition that helps to minimize violence”—“or instead a nuisance, a propaganda liability, a diplomatic obstruction, and an inhibition to our decisive action and delegation of authority.”62 This was in effect a plea to those in the United States who had

61 Ibid., p. 262
62 Ibid., p. 263 Schelling warned those who believed that nuclear weapons should be used “at the earliest convenience, or whenever military expedience demands” that they should acknowledge
responsibility for nuclear weapons to think very seriously about the potentially grave consequences of their actions. Schelling’s point here seems to have been inspired by concerns that the United States was, as Brodie had noted, responsible for eroding the “anathema and horror” which surrounded the use of nuclear weapons. His three other conclusions were motivated by the very same concerns.

The second conclusion was that the first use of nuclear weapons in a limited war would drastically weaken, and perhaps efface altogether, the “principal inhibition on the use of atomic weapons in limited war”. As Schelling observed, the consequence of the first use of nuclear weapons in a limited war would probably be that in the next limited war the “tacit agreement” that nuclear weapons were different would not be “as powerfully present”. Indeed, thought Schelling, “[O]ne potential limitation of war will be substantially discredited for all time if we shatter the tradition and create a contrary precedent.”63 His third conclusion was that on the occasion of the first use of nuclear weapons “patterns and precedents” for their use would be established. The United States had to be just as concerned about these, and the “nuclear role” which it adopted, as about the objectives of the limited war with which it set out. This was because it would not only be using nuclear weapons in an ad hoc fashion “for the little war in question” but also playing an important part in shaping the character of the “limited nuclear wars” of the future. This was related to the fourth, and last conclusion. The first time that nuclear weapons were used in a limited war the enemy would also be simultaneously engaged in two “different kinds of limited war activity”. The first of these was the “limited struggle over the original objectives” and the second was the “tacit negotiation or gamesmanship” about nuclear weapons and the role they would be assigned—in the limited war in question and any limited wars that might occur thereafter.64

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63 Ibid., pp. 264 and 265
64 Ibid., p. 265
Schelling's analysis of the role of nuclear weapons in limited wars was, in effect, an attempt to adapt Brodie's conception of "deterrence" to the strategic and military realities of the second half of the 1950s. Nuclear weapons had become more abundant and apparently more "versatile", they came in a range of different shapes and sizes, and there was the distinct possibility that the United States might use them in the limited wars of the future. Schelling's appeal to the supposed tradition for the non-use of nuclear weapons was intended to highlight the need for the "mutual acknowledgment" of the distinction between nuclear and non-nuclear weapons. By emphasising the need for mutual acknowledgment, Schelling hoped to highlight the responsibility which the United States had for maintaining the tradition. If the United States demonstrated by its actions that it did not acknowledge the distinction, then how could the Soviet Union be expected to acknowledge it and maintain the tradition for the non-use of nuclear weapons? Any use of nuclear weapons would effectively abolish the distinction and fatally weaken the tradition.

By attempting to demonstrate that there was a tradition for the non-use of nuclear weapons based on a qualitative distinction between nuclear and non-nuclear weapons, Schelling showed that Brodie's earliest conception of "deterrence" had lost none of its force or validity--indeed, in the intervening years it had become more valid and compelling. Nevertheless, in the late 1950s neither Schelling nor Brodie himself, or for that matter Wohlstetter, had to refer specifically to Brodie's seminal work in the theory of nuclear deterrence. There was no need to do so because they all worked from within the deterrence paradigm which had been evolving since The Absolute Weapon had appeared in 1946. "Paradigm" is used here to stand for the shared conceptual, analytical and broadly ideological commitments of a given scientific community.

In the Introduction it was argued that the fundamental constituent element of the deterrence paradigm was the belief that the sole purpose of nuclear weapons was or should be "deterrence", a purpose that could be fulfilled only by protecting their retaliatory capability. The entire theory of nuclear "deterrence" was based on
the assumption that the purpose of nuclear weapons was to avert general nuclear war between the United States and the Soviet Union. Their purpose was not to be used in a retaliatory fashion, and definitely not pre-emptively. The protection of the retaliatory capability of nuclear weapons would obviate the retaliatory use of nuclear weapons, indeed, any use of nuclear weapons by either side. The other concepts and elements of the deterrence paradigm—"vulnerability", that strategic stability was conditional upon, and to be equated with, a "balance of terror" or mutual deterrence—followed logically from this central supposition.

Brodie had introduced the problem of "vulnerability" in his earliest analysis and discussion of the requirements of "deterrence". Indeed, "vulnerability" was an obvious corollary of "deterrence" as initially conceived by Brodie. Nevertheless, in the formative years of deterrence theory it was pretty much a peripheral concept. At this stage moreover it was, like "deterrence" itself, a fairly abstract idea. Wohlstetter's bases studies, and 'Balance of Terror' article, cast "vulnerability" as a central problem, perhaps the central problem, of deterrence theory and gave it concrete dimensions—numbers and locations of overseas bases, operating radii of American bombers, (inflated estimations of) Soviet capabilities, and hence intentions, for waging intercontinental thermonuclear warfare, and so forth. It followed logically from Wohlstetter's analysis of the problem of "vulnerability" that only when it was finally solved—as difficult a task as this would be—would the "balance of terror" cease to be precariously and dangerously "delicate" and unstable. Once it was solved, mutual deterrence would be the main factor governing the strategic relationship between the United States and the Soviet Union. As Schelling had observed, mutual deterrence was the best (perhaps the only) source of military or strategic stability available. "Deterrence", "vulnerability", and the theorists' notion of strategic stability were all connected with key aspects of the doxa of the deterrence paradigm—which was also the doxa of the intellectual framework of the military planners.

As seen in the Introduction, the doxa contained, amongst other things, an assemblage of beliefs and assumptions about the Soviet Union which together
portrayed it as a power pathologically hostile toward any nation or state which did not willingly submit to its credo. According to this portrayal, its pathological hostility compelled it to seek to dominate and control its external environment in the same way as it brutally exercised repressive rule at home. In ‘The Delicate Balance of Terror’, Wohlstetter wrote for an influential civilian readership which also shared in or belonged to the doxa. Thus he was able to argue persuasively, without the need to provide much up-front supporting evidence, that the Soviet Union possessed the capability to launch a devastating, “warningless” attack on the United States. (The “evidence” which Wohlstetter had included in his classified studies was a compilation of estimates prepared by Air Force Intelligence in accordance with the beliefs and assumptions of the doxa.) Its possession of this capability was taken to be irrefutable evidence that its intention was to launch such an attack at some time in the future that was unfortunately unable to be specified in advance. Therefore, unwavering and eternal vigilance by the United States was the only answer to the dangerously uncertain future which it faced.

The doxa characterised the Soviet Union as a compulsively aggressive and expansionist power. In effect, Wohlstetter demonstrated that its aggressive and expansionist tendencies were manifested in the thermonuclear age by a capability and intention to deliver a crippling surprise attack against the United States. In this way, Wohlstetter up-dated the doxa so that it was able to accommodate contemporary strategic and technological realities. The problem of “vulnerability” was a symptom of these new realities. Far from undermining the conception of “deterrence” which Brodie had introduced in The Absolute Weapon, these realities in fact reinforced it--"vulnerability" was such a problem precisely because “deterrence” had become an exigency. An exigency, that is, for the strategic theorists. For exactly the same reasons, pre-emption had become an exigency for the military planners. As far as the planners were concerned, the Soviet Union’s capability and intention to launch a crippling pre-emptive strike compelled the United States to prepare to deliver a pre-emptive strike of its own. A pre-emptive strike was for the planners the only way of preventing or “deterring” the Soviet
Union from using nuclear and thermonuclear weapons pre-emptively against the United States.

Given their attachment to the United States Air Force and Strategic Air Command, the strategic theorists were chiefly concerned with the purpose, role and capabilities of strategic nuclear weapons. Tactical nuclear weapons presented a problem for them only in so far as they threatened to lower precipitately the threshold for use. While the theorists acknowledged that tactical nuclear weapons would in all likelihood be used in limited rather than general wars (and probably by the United States), they were nevertheless worried that any use of nuclear weapons would dramatically detract from their central purpose and role which was to avert the use of strategic nuclear weapons in a general war between the United States and the Soviet Union. For the strategic theorists, nuclear weapons were peculiar precisely because they had no use other than to prevent the use of nuclear weapons by not being used. As Schelling recognised, the increasing diversity and versatility of nuclear weapons meant that their size and other physical characteristics did not sharply set them apart from conventional weapons. Brodie knew that, for similar reasons, tactical nuclear weapons could not be clearly distinguished from strategic nuclear weapons. The only meaningful distinction was therefore a qualitative one: the sole purpose of nuclear weapons was “deterrence” while conventional weapons obviously had other purposes and uses. Nuclear weapons could serve this purpose, and the distinction thereby preserved, only if they were never used.

Strategic studies developed as the discipline in which Brodie’s conception of “deterrence” was systematised and formalised. Such systematisation and formalisation involved the use of systems analysis to analyse the problem of “vulnerability”—a problem which was predicated on the validity of “deterrence” as Brodie had defined it. Wohlstetter’s use of systems analysis to analyse the problem of “vulnerability” was important in the overall development of strategic studies because it demonstrated that quantitative methods could be usefully and profitably employed in strategic analysis. The theory of games was the other
important tool or technique of analysis which was employed by the strategic theorists. Its usefulness derived from its supposed ability to model situations, and suggest appropriate courses of action for rational decision makers, in which two parties were in conflict but in which they also to some extent had common interests and objectives. Deterrence-type situations were believed to be a good example of those in which such conditions obtained. While the United States and the Soviet Union were both engaged in a potentially genocidal conflict, that conflict was also potentially suicidal for each. Thus, in pursuing the conflict and attempting to win, they also had to co-operate in order to avoid mutual catastrophe. This is where the “deterrent” purpose of nuclear weapons entered the picture—each side had to be deterred from using nuclear weapons. At the end of the 1950s, Schelling argued that game theory had not yet been developed to the point where it could be of much assistance in the analysis of a problem like “deterrence”. For this reason, the growth and development of the theory of “deterrence” had also been stunted.

The RAND Corporation was strategic studies’ nursery. RAND had been established under Air Force auspices in 1946. The period 1946 to 1959 were the formative years for strategic studies. During this period, the strategic theorists formalised and systematised the theory of nuclear deterrence by developing systems analysis and game theory and applying them to the analysis of the problems of nuclear strategy, namely “deterrence” and “vulnerability”. The formalisation and systematisation of deterrence theory greatly widened the already large gap that separated the theorists’ conception of “deterrence” from that of the planners. It will be argued that the Air Force gained great prestige and kudos by virtue of its employment of scientists, physical, natural, social, to study what were considered to be the most urgent and pressing problems of national security and therefore continued to support the activities of the strategic theorists at RAND. Its continued support for them implied no pledge to take their ideas on board in the development of its weapons systems and strategic programmes. Arguably the Air Force continued to give this support in order to hide its unsavoury and terrifying
activities from public view, for such support helped to keep the planners' conception of “deterrence” a mostly well-guarded secret.

6.5 RAND and the discipline of strategic studies: systematisation and formalisation of Brodie’s conception of “deterrence”

In 1946, the RAND Corporation began life as Project RAND in the main building of the Douglas Aircraft Corporation in Santa Monica, California. To begin with, Project RAND was a “...civilian group attached to the Douglas company which would contract with the air force to plan development and employment of new weapons.” Initially, the four employees of RAND worked with a few Douglas Aircraft engineers “strictly on technical and engineering problems” including the use of titanium alloys on supersonic aircraft, aerial refuelling, and “new mathematical and statistical techniques”. Later, in 1947 as relations between RAND, Douglas and the Air Force began to deteriorate, RAND moved to its own premises in Santa Monica, California, and in 1948 was reconstituted as an independent, non-profit advisory corporation. It was renamed the RAND Corporation and, in spite of being ‘independent’, “[T]he Air Force Project RAND was originally the Corporation’s only concern and today [1958] is still its principal one.” RAND also did some work for government agencies like the US Atomic Energy Commission, sponsored and funded its own research and undertook to do some research for the Air Force “...of a more specific nature than Project RAND.”

In 1946, General Le May, at the time Deputy Chief of Staff for Research and Development described the mission of Project RAND thus: “Project RAND is a continuing program of scientific study and research on the broad subject of air warfare with the object of recommending to the Air Force preferred methods,

66 Kaplan, op. cit., pp. 59-60
67 R.D. Specht, 'RAND: A Personal View of its History', P-1601, The RAND Corporation, Santa Monica Calif., October 23, 1958, p. 8 (Specht worked in RAND's Mathematics Division.) For more on the early history of RAND see Smith, RAND Corporation, op. cit., Chapter II 'The Background and Origins of Project RAND', pp. 30-65
techniques, and instrumentalities for this purpose." As has already been suggested, the work of the natural and physical scientists and engineers would be of far more immediate relevance and value to the Air Force than that of the economists and social scientists. This would remain the case through the late 1940s and 1950s. Nevertheless, the Air Force’s employment of economists and social scientists to study and analyse problems that were regarded as being of vital concern to the national security of the United States would reflect favourably on it. The Air Force, and SAC in particular, was reputedly the service on whose being and performance the national security of the United States most keenly depended. The employment of scientists of all types (physical, natural, social), evidently to assist it in improving the performance of its grave mission, gave the impression that the Air Force was a progressive organisation which was open and receptive to new technologies and ideas that had been thrown up by cutting-edge research broadly in the area of air warfare. The use of experts from fields outside of the “hard” sciences was, of course, not unprecedented. The civilian analysts who staffed the US Army Air Forces’ Committee of Operations Analysts during the Second World War were lawyers and other professionals mostly with an economics, managerial or accountancy background, not “hard” scientists at all.

As seen in Chapter 1, the contribution of the operations analysis amounted to little more than offering a “quasi-scientific” rationalisation and justification for what the bombing commanders were already planning to do. This they did by evaluating the commanders’ plans in terms of the standards of accountancy and economics, standards which put a premium on efficiency and cost-effectiveness. The net effect of their contribution was indirectly to help in the process of refining the means but certainly not the ends of strategic bombing. Operations analysis (or research) was the precursor of systems analysis which was principally concerned with the efficiency and cost-effectiveness of competing weapons systems and basing modes rather than of actual bombing missions. Systems analysis as employed by the strategic theorists at RAND—in particular, Wohlstetter and his cohorts—was based on, and provided a quasi-scientific rationale for, the

68 Cited in Ibid., p. 2.
assumption that "deterrence" was the sole purpose of nuclear weapons. The corollary of this assumption was that nuclear weapons could be "used" for "deterrence" only if they retained their retaliatory capability in spite of enduring an enemy surprise attack or first strike. It was, then, even more distant from the practical concerns of the military planners than operations research. However, systems analysis, like operations analysis, relied heavily on the quantitative methods of economics.

Systems analysis developed out of operations research. As James Schlesinger points out, because operations research (OR) was devised largely by "engineers, mathematicians, and scientists" there was a tendency evident in it "...to oversimplify problems and, especially, to think that definitive answers to social or economic problems may be readily obtained." Accordingly, for OR, "[E]verything significant is assumed to be quantifiable, and, conversely, whatever is not quantifiable is not significant." 69 During World War II OR had initially been applied to the problem of finding the "most efficient search patterns for Allied destroyers hunting German submarines" 70. The application of OR to such tactical problems drew heavily on the skills of physicists, engineers and mathematicians. Nevertheless, it was seen in Chapter 1 that when OR was applied to the problem of refining the techniques of strategic bombing, the skills of the engineers, mathematicians and hard scientists were not nearly so much to the fore. Indeed, most of the civilian members of the Committee of Operations Analysts were not scientists at all, but businessmen and corporate lawyers. In any event, OR would not have been entirely unfamiliar to these civilian experts for, as Bruce Smith points out, something similar to operations research "had been used in industrial management for some years" prior to the outbreak of World War II. 71

As the skills and methods of the mathematicians and hard scientists passed into the background, so did the techniques of quantitative economic analysis become

70 Gregg Herken, Counsels of War, Alfred A. Knopf, New York, 1985, p. 36
71 Smith, op. cit., p. 6
more and more important. This was an important chapter in the evolution of systems analysis out of OR—and therefore in the systematisation and formalisation of the theory of deterrence and the development of strategic studies. The increasing importance of economics in strategic analysis was reflected in developments at the RAND Corporation. During 1946, mathematics and the physical and engineering sciences held sway at RAND and as seen above this was reflected in the nature of the studies then being produced there. In 1947, the Economics and Social Science Divisions were established (respectively, with Charles J. Hitch and Hans Speier at their head). With the creation of these divisions, RAND’s work would no longer be confined to the technical and engineering aspects of weapons systems that were of actual or potential interest to the Air Force. Henceforward, a significant part of RAND’s work would be devoted to the study of the “strategy of warfare”, and those so engaged “...would try to impose the order of the rational life on the almost unimaginably vast and hideous maelstrom of nuclear war.” Initially, the Economics Division fared much better than its social sciences counterpart, for it was not until 1958 that the latter moved from RAND’s Washington office to the headquarters in California. According to Smith, the Economics Division became “one of the most prominent research units in RAND” by helping to impart an “...awareness of cost considerations in the broadest sense and their importance in guiding choice under uncertainty -- a way of looking at military problems that has come to figure prominently in the RAND research effort.”

72 After the War, the Air Force established an Office for Operations Analysis which was attached to the Air Staff and each Air Force command had an Operations Analysis section assigned to it. The Air Force was thus equipped “...with an integrated, decentralized operations analysis system.” However, as Gene Lyons and Louis Morton point out, while this system was designed to assist in the analysis of “immediate operational problems”, it was not equipped with the means to undertake “long-range, high-level studies on future developments in air warfare.” RAND was established to fill this vacuum. The aim was attract the “best scientific talent” in the United States to play a part in the development of the United States Air Force. Lyons and Morton, op. cit., p. 246

73 Specht, op. cit., pp. 15-18

74 Kaplan, op. cit., p. 73

75 Smith, op. cit., p. 63. According to Smith, 15 to 20 percent of the researchers at RAND were economists.
The economists at RAND played a large part in creating and guiding the early evolution of systems analysis. Smith observes that, while it was largely a RAND product and as with operations research, "...somewhat related aids to management decision had been used for some years within large industrial enterprises."76 The economists at RAND regarded general nuclear war as a type of conflict in which political, cultural and historical, that is, broadly “qualitative” considerations were largely irrelevant. They developed the RAND style of strategic analysis in which the principal problems arising from the planning and preparation for general nuclear war were framed as questions concerning such matters as the “allocation of resources among expensive competing weapons systems, cost of different styles of research and development, [and, as suggested by game theory] bargaining with a single opponent in a two-sided matrix.” It was therefore natural for the RAND economists to suppose that analysis using “traditional economic concepts” could be extremely useful, perhaps indispensable, in finding solutions and answers to them.77 Being concerned with such matters as the allocation of resources and the costs of weapons systems, it is little wonder that the RAND economists equated good strategic analysis with quantitative strategic analysis, an equation that in the 1950s became a constituent element of the deterrence paradigm. It would be wrong to suppose that the strategic analysis done at RAND had not one but two different styles, the one abstract and quantitative, the other historical.

Gregg Herken is one author who falls into this error. He claims that Brodie’s work epitomised the “classic, historical kind of analysis” while the other was the “quantified approach” of the RAND economists and social scientists. Their quantified approach, as Herken correctly points out, employed the “techniques of statistical analysis and econometrics”.78 Unfortunately for Herken, however, he completely ignores Brodie’s own pronouncements on the usefulness of systems analysis and economics. For example, in Strategy in the Missile Age Brodie observed that, “[S]ystems analysis, which brings what is modern to present-day

76 Ibid., p. 111
77 Ibid., p. 13
78 Herken, op. cit., pp. 75-76
Strategic analysis, is mostly a post-World War II development.” According to Brodie, the “central idea” of systems analysis is that “no weapon can be considered independently of the other weapons and commodities that are used with it”. The issue for policy makers, then, became that of deciding between competing weapons systems where the decision was to be based on their comparative costs and benefits “as considered against some common standard of function”\(^79\)--here “marginal utility”, “opportunity cost”, “diminishing returns” and other “traditional” (that is, classical and neo-classical) economic concepts were obviously relevant and useful. So was quantitative analysis. As seen above, in the same work he had also referred in fairly positive terms to the work in limited war and bargaining of Thomas Schelling. In a much earlier article, Brodie had stated that it was his conviction that

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\text{...a substantial part of economic theory could be very profitably adapted to strategic analysis, including analysis of operational plans, and that those responsible for such analysis would do well to acquaint themselves with that theory—but even that is not the essential issue. Whether this or that concept can be applied with profit is something which interests us only in passing. It is in the field of methodology that a science like economics has most to contribute, and the point which it is the whole purpose of this article to bring home is that what is needed in the approach to strategic problems is genuine analytical method.}^{80}
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Brodie’s call for a genuine analytical method, like that which supposedly underpinned the “science of economics”, to be adapted for use in strategic analysis was certainly well in step with the intellectual culture that was then developing in the RAND Corporation under the impetus of the economists. His call, therefore, played a part in the systematisation and formalisation of deterrence theory, and the development of strategic studies.

The displacement of the techniques of the mathematicians and hard scientists by the methods of economics did not mean that systems analysis became any less

\(^79\) Brodie, *Strategy in the Missile Age*, op. cit., pp. 384; emphasis added

quantitative than OR. To suppose that it did is to fall into serious error. The methods of economics employed in systems analysis were every bit as quantitative as the techniques they usurped. This is often overlooked. Bruce Smith, for example, claims that systems analysis “differs significantly” from its predecessor “...in being less quantitative in method and more oriented toward the analysis of broad strategic and policy questions, and particularly in seeking to clarify choice under conditions of great uncertainty.” In contrast, says Smith, operations research concentrated on “low-level tactical problems” to which precise solutions could often be found.\(^1\) While, according to Smith, “systems analysis aims at a range of problems to which there can be no ‘solution’ in the strict sense because there are no clearly defined objectives that can be optimized or maximized”, it certainly was not the case that its practitioners abandoned “rigor and preciseness” altogether. Indeed, claims Smith, it was precisely because systems analysis did not side step rigor or precision that it was able to offer defence decision makers “...more reliable assessments of numerous difficult choices than simple intuition or inference from unexamined precept.”\(^2\) The “tentative and empirical methods” employed in the systems analysis done at RAND enabled its practitioners to produce results which were “vastly superior to either the civilian or military conventional wisdom.” Moreover, the employment of these methods was more suited to the analysis of “...muddy normative issues of broad policy than the traditional scientific quest for objective solutions to clearly defined problems.”\(^3\)

In reality, the “muddy normative issues” mentioned by Smith were nothing more elevated than the comparative costs and benefits of competing or alternative weapons systems, issues which were suited to analysis using so-called “traditional economic concepts” and readily amenable to quantification. Like Smith, R.D. Specht claims that, in the ten years up to 1958, the approach to systems analysis at RAND changed markedly. Whereas in the early days systems analysis was given over to the task of “analyzing a problem with a given and definite context and

\(^1\) Smith, *op. cit.*, p. 104.
\(^3\) Smith, *op. cit.*, p. 198
with specific equipment"—that still yet dealt with the "complex problems of choice in the face of uncertainty"—the situation in 1958 was altogether different. The objectives were no longer necessarily defined clearly, and the problem thus became that of designing, not merely analysing, a "...system that will operate satisfactorily, in some sense, under a variety of contingencies that may arise in a future that is seen only dimly."\textsuperscript{84} Specht does not mention that, in designing and analysing a system that would operate satisfactorily in an uncertain future, the systems analysts at RAND employed the concepts and methods of quantitative economics. They were predominantly concerned with the comparative costs and benefits of different strategic weapons systems, particularly with respect to their vulnerability and retaliatory capability.

Gene Lyons and Louis Morton's discussion of system analysis does not diverge markedly from that offered by Smith and Specht. According to Lyons and Morton, system analysis "...is a scientific method of arriving at a decision by seeking the particular response that in its combination of the elements is distinctly better than alternative responses to a problem." The strategic analysts at RAND had initially regarded systems analysis as an "almost magical method" for analysing almost any "complex problem". This enthusiasm had since waned and the RAND analysts had come to use it more cautiously and made fewer claims for its "infallibility". While they still thought of it as a valuable, even indispensable, method for dealing with complex problems requiring the use of "mathematics and computers", it was thought to be not nearly so useful for analysing strategic and policy questions. In terminology similar to that employed by the other authors, Morton and Lyons point out that "uncertainty and unpredictability are the constants of the real world". Even though systems analysis with its "new tools"—"computers, war gaming, game theory, Monte Carlo, and linear programming—was able to reduce uncertainty it could not eliminate it altogether. For this reason, "...RAND studies have become increasingly realistic, and the contributions of social scientists and historians, who lack the scientist's precision tools but who

\textsuperscript{84} Specht, \textit{op. cit.}, pp. 21, 22 and 23
deal with the real world, have correspondingly increased." The shift of the Social Science Division from Washington to California probably played a large part in raising the prestige of the social scientists. But there were other reasons for this as well. After their arrival at Santa Monica, the social scientists were able to contribute more fully and effectively to the "broad systems-analysis work" then being done there. The higher profile and increasing prestige of the social scientists at RAND was due, claims Smith, to the shift to "limited" war problems and away from an almost exclusive concentration on problems of general nuclear war. In Smith's view, the "...dominant political character of limited war, with numerous subtle questions of morale, training, motivation, cultural attitudes, and many-sided conflicts, calls for a stronger representation of such skills as political science, cultural anthropology, and social psychology." All these authors make the same mistake: they regard systems analysis as being less quantitative in method, more orientated toward the analysis of broad policy questions, and better able to cope with the conditions of uncertainty faced by policy makers than operations research. For all of them, systems analysis moved further away from OR as it developed at RAND through the 1950s. Even if in the late 1950s the analysis of the problems of limited war required that the skills of the social scientists be added to those of the economists, as seen above, the bulk of the work done by the strategic theorists at RAND was still concerned with general nuclear war. Limited war was not then a major concern of the Air Force or SAC--and therefore was not the major preoccupation of strategic studies. The strategic theorists regarded general nuclear war as a depoliticized or apolitical type of conflict the analysis of which therefore did not have to draw on the skills and methods of the social sciences. Rather, it was assumed that the problems arising from ensuring that the "deterrent" purpose of strategic nuclear weapons was fulfilled to the advantage of the United States, in other words the problems arising from the non-use of these weapons, were amenable to analysis using systems analysis and game theory. Both systems analysis and game theory

85 Lyons and Morton, op. cit., p. 251
86 Smith, op. cit., p. 13
depended on the quantitative methods of economics. But even limited war could be analysed using the "new tools" of systems analysis, such as game theory. Indeed, the analysis of the problems of limited war and tactical nuclear weapons offered by Schelling in *The Strategy of Conflict* (particularly Chapter 3 and Appendix A which were extensively cited above) was an attempt to fit them into the "framework of game theory".87 In looking at limited war, even Brodie found Schelling’s analysis helpful.

The mathematical and statistical methods employed in the systems analysis done by Wohlstetter and his team in the preparation of the strategic air bases study (R-266) were largely drawn from neo-classical economics and econometrics. The bases study was concerned with the cost and effectiveness of alternative strategic bomber basing systems. The study dealt "...only with gross differences in system performance, that is, differences that would still be important despite large elements of uncertainty in the analysis." Starting with "rather simplified assumptions", the study proceeded by a "method of successive approximations" and "...successively considered new constraints and problems of 'real world' behavior likely to have an important influence on alternative basing systems".88 Again as noted in Chapter 5, the conclusion reached by the study was that, of the four alternative basing systems considered (including the then-programmed basing system), the preferred one—for the study group but not SAC—was that the "United States-based bombers [operate] intercontinentally with the help of ground-refueling at overseas staging areas."89 According to Smith, R-266 did not an attempt to arrive at an "optimum solution" but sought merely to identify a system of overseas bases that would be "capable of functioning well under widely divergent conditions" and that would perform satisfactorily "under major catastrophe".90 Though Smith does not here say so, the "major catastrophe" was of course a Soviet surprise attack, and "satisfactory performance" meant the retention of the strategic striking force’s retaliatory capability even in face of this

87 Preface in Schelling *op. cit.*, p. iii
88 Smith, *op. cit.*, p. 208
eventuality. R-266 was a groundbreaking study for, after its completion, RAND systems analysis became "ostensibly less precise" but more useful to policy makers. R-266 broadened the scope of the inquiry into SAC vulnerability not only to include "consideration of US strategic objectives" but even factors such as "political conditions" effecting the choice of overseas bases. In this way, claims Smith, the study "...figured prominently in the development of RAND’s 'strategic sense'".

As seen above, the so-called "strategic sense" that had been developing at RAND since its inception regarded general nuclear war as an abstract kind of conflict, in which historical, social and political factors--precisely those factors which were so important in traditional military strategy--were largely irrelevant. Smith is correct in asserting that R-266 was significant in the development of RAND’s strategic sense, but certainly not in the way he supposes. As Kaplan point out, R-266 was "among the first attempts to abstract the 'nuclear exchange', to place it, like one of Wohlstetter’s exercises in mathematical logic from earlier days, in a rarefied universe all its own". This "rarefied universe" was very distant from the mundane world of the policy makers and military planners and sharply divorced "...from the broader issues of how nuclear weapons fit into an overall strategy and how many weapons were needed before their further accumulation no longer much mattered." The rarefied universe in which the strategic theorists worked--rarefied because it was structured within the framework of game theory--nurtured a very abstract "strategic sense". Noting that systems analysis was concerned with finding the "most effective way to perform given tasks at the lowest possible cost", Lawrence Freedman points out that RAND systems analysis mostly "...took for granted the underlying conflict that inspired and informed defence policy."

RAND systems analysis studied "comparative performance" of competing weapons systems, such as basing systems for bombers, under different conditions

91 Ibid.
92 Kaplan, op. cit., p. 109
and circumstances. The basic elements of a system were human beings (solely men) and machines and the different weapons systems contained different configurations of these same basic elements. The behaviour of these elements, and thus of the system as a whole, could be analysed quantitatively and therefore measured in terms of cost and effectiveness. Other elements, whose behaviour could not be as easily measured, had to be largely excluded from the analysis. One result of this was "...to encourage a tendency, which gradually became more acute, to place an extremely sophisticated technical analysis within a crude political framework." Systems analysis was a style of analysis much less suited to studying the "relationship between men and political structures" than between men and machines.94 Even here it encouraged a very mechanistic view of human behaviour.

R-266, which played the role of a Kuhnian exemplar, employed the methods of quantitative economics, econometrics and statistics. It not only played an inordinately important role in the systematisation and formalisation of deterrence theory by demonstrating the usefulness of systems analysis the methods of which were quantitative and mostly drawn from economics. It also played this role by showing that game theory could be extremely useful in strategic analysis. As will be seen, game theory was itself based on the same assumptions which underpinned classical and neo-classical economics and its use and usefulness in strategic analysis depended on quantitative economics.

R-266 impassively, and abstractly, analysed the "nuclear exchange" as a sort of gruesome, mechanistic and highly mechanised game of ping pong. The fundamental elements of the crude political framework within which it was placed were drawn from the doxa with additional data supplied by Air Force Intelligence. Says Kaplan,

[T]he Wohlstetter study set the model of what strategic analysis should be. It was the study that, for years after, almost everyone in the quantitative quarters at RAND would instantly cite when asked to name the most impressive systems analysis they had produced. It

94 ibid., pp. 179 and 180
imposed a much higher premium than had previously existed on the claim that good strategic analysis meant quantitative analysis with elaborate calculations and "hard" data. And since most of this data came from Air Force Intelligence...quantitative analysis tended to paint a very scary picture of the Soviet threat.95

The image of nuclear war as a game of gruesome ping pong which R-266 projected was in many ways a function of the use of game theory in strategic analysis. There had been a tendency to view nuclear in this way ever since Brodie had first put his thoughts on the military usefulness of nuclear weapons down on paper. But game theory formalised it, made it much more abstract, and carried it much further. The systems that were analysed in systems analysis were configurations or structures formed by humans and machines. The performance of a system was largely determined by the behaviour of the elements of which it was composed. The behaviour of the individual elements could be measured, as could the performance of the system as a whole, and then measured against the behaviour of the elements, and performance, of other systems. This could be done for a variety of different conditions and circumstances. In measuring the performance of the system as a whole, the behaviour and performance of opposing, rather than competing or alternative, systems was also of course extremely important. This is where game theory played a crucial role. Game theory analysed not so much the reciprocal behaviour of the United States and the Soviet Union as the reciprocal behaviour of two abstract strategic nuclear systems which were in grave conflict with each other. In other words, the US and the USSR were not regarded as historical, political and cultural entities but rather as complex combinations or systems of human beings and machines each of which was driven by ideological animus toward the other. The intentions ascribed to the strategic system of the United States were supplied by the doxa and its capabilities analysed accordingly. Similarly, the doxa contained authoritative beliefs and assumptions about the Soviet Union’s intentions. Air Force Intelligence estimates, based on these same beliefs and assumptions, supplied information on Soviet capabilities the interpretation of which was strongly guided by the doxa.

95 Kaplan, op. cit., p. 109
Game theory both accommodated and reinforced the view of the conflict between the United States and the Soviet Union as a game in which the adversaries were little more than complex but simple-minded machines that were engaged in a childish, you-started-it-first, tit-for-tat contest or competition -- but one played for extremely high stakes. R-266 embodied this view of the conflict. According to Kaplan, Wohlstetter was “taken in” by game theory’s “fundamental guiding point: that in planning one’s own tactics and strategies, one had to take into account systematically the actions that an enemy might take if that enemy were a completely rational player.” Game theory insisted that one’s own “best moves” could only be planned if regard were given to what the enemy’s “best moves” would be under the same circumstances. This “...provoked Wohlstetter to look at a map and to conclude that the closer we are to them, the closer they are to us--the easier it is for us to hit them, the easier it is for them to hit us.” As noted in Chapter 4, this was a complete inversion of the military planners’ reasoning. Thus, while locating SAC’s bases close to the Soviet Union would enable it swiftly and easily to strike Soviet targets, on the other side the “...the Soviets might also more swiftly and easily strike SAC.” This is where the doxa entered the picture. In this situation, the SAC forces would be more vulnerable to attack than their Soviet counterparts because the Soviet Union was, for reasons which the doxa supplied, more likely to launch a first strike than the United States.

Game theory was enthusiastically embraced at the RAND Corporation during the late 1940s. By the early 1950s it had become established and was widely used in RAND’s mathematics and economics divisions. At RAND, it was used in the analysis and design of systems potentially of interest to the Air Force, such as for strategic bombardment and air defence. As developed by John von Neumann and Oskar Morgenstern in *The Theory of Games and Economic Behaviour* (first published in 1944) game theory was a formal mathematical theory “...of rational decision-making in situations of interpersonal conflict.” Von Neumann and

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96 *Ibid.*, pp. 91 and 92
97 *Ibid.*, pp. 67 and 91
Morgenstern contended that a "theory of the strategies which the participant [buyer or seller] in an economy employs" should form the basis of an "analysis of rational economic behavior". But, for von Neumann and Morgenstern, game theory’s relevance and applicability went well beyond the economic domain. In their book they systematically laid out the theory of games "...offering the mathematical proofs, [and] suggesting applications of the theory to economics and the entire spectrum of social conflict." John Williams, head of RAND’s Mathematics Division, was particularly enamoured of the theory of games and believed along with von Neumann and Morgenstern that it “could play a valuable role in guiding decisions” in a wide variety of situations and applications, including international conflict.

However, Williams realised that it could be useful to the analysis of rational behaviour (that is, decision making) in the situations of conflict or co-operation that arose in the economic marketplace or international relations only if the values of each of the players or opponents (in the first case buyers and sellers, in the second, states) were first able to be quantified and measured. Otherwise there would be no basis, other than crude guesswork, on which to calculate the “payoffs” (outcomes) received by each player as a result of the choices they had made. This is where economics, and specifically RAND’S Economics Division, became vitally important, even indispensable. Game theory, like classical economic theory, assumed that individuals and states were rational self-interested.

98 Robert Paul Wolff, 'Reflections on Game Theory and the Nature of Value', *Ethics*, vol. 72 (1961-62), p. 171. Von Neumann was a mathematician, Morgenstern an economist. Von Neumann became a part-time consultant to the RAND Corporation in late 1947. It should be remembered that game theory was essentially a mathematical theory. For game theory’s relationship with the discipline of economics, and some of the background to its early development, see Philip Mirowski, ‘When Games Grow Deadly Serious: The Military Influence on the Evolution of Game Theory’ in Crawford D. Goodwin (ed.), *Economics and National Security: A History of Their Interaction* (Annual Supplement to vol. 23 *History of Political Economy*), Duke University Press, Durham and London, 1991, pp. 233-243. Mirowski’s history and analysis of game theory unfortunately suffers from a number of shortcomings. For example, when he comments that, “[T]he military needed a ‘science’ [game theory] which could produce results in a mechanical fashion; perhaps all strategy might become mechanized, programmed into a bank of computers, guaranteeing the optimal battle” (p. 250) he greatly exaggerates the relevance and importance of strategic theory, and the strategic theorists, to the military planners.

99 Kaplan, *op. cit.*, p. 66

100 *Ibid.*, p. 67
value or utility maximizers. But the importance of economics extended well beyond this basic assumption. The concepts and methods of neo-classical economic theory, which emphasised the importance of mathematics and quantification to rigorous economic analysis, enabled the values/utilities of players/opponents to be measured and quantified thus providing the numbers to be inserted into the matrixes that are conventionally employed in the diagrammatic illustrations and expositions of the theory.\textsuperscript{101} The sort of economic analysis which calculated the utilities of consumers or states was the bread-and-butter of the RAND economists. In the development of both systems analysis and game theory, and therefore the systematisation of deterrence theory and the development of the discipline of strategic studies, the RAND Economics Division thus played a crucial role.\textsuperscript{102}

As seen above, one measure of game theory's influence at the RAND Corporation was that it helped to structure the thinking behind Wohlstetter's bases study. It was in this study that the problem and notion of "vulnerability" first came to prominence within the community of strategic theorists at RAND. While "vulnerability" drew on the earliest work in "deterrence" of Bernard Brodie, Wohlstetter in his two studies and the 'Balance of Terror' article demonstrated that it was an absolutely crucial problem for the theory of deterrence. Wohlstetter's stature within the strategic theory community helped to ensure that the simple-minded view of the Soviet-American conflict that was both accommodated and reinforced by game theory, and which lay at the heart of his studies, was firmly established as the conceptual framework (or cage) in which deterrence theory and the discipline of strategic studies developed during the 1950s. Game theory was, after all, one of the fundamental elements of deterrence paradigm. In a sense, however, Wohlstetter's reliance on game theory simply formalised and took to a higher level of abstraction the thinking that had lain beneath the concept and theory of "deterrence" which Brodie had offered in 1946.

\textsuperscript{101} This way of characterising neo-classical economic theory was suggested by William J. Barber, \textit{A History of Economic Thought}, Penguin, Harmondsworth, 1967, pp. 166-167.

\textsuperscript{102} The analysis of the role of the RAND economists in the development of game theory which appears here is in part drawn from Smith, \textit{op. cit.}, pp. 12-13 and 60-65 and Kaplan, \textit{op. cit.}, pp. 67-73.
Starting with the assumption that "deterrence" was the sole purpose of nuclear weapons, a purpose that was dependent upon their not being vulnerable to surprise attack, Wohlstetter analysed the problem of what would be the most efficacious, efficient and cost-effective use and location of strategic air bases. As seen above, game theory suggested to Wohlstetter that the bases' vulnerability was a function of their proximity to the Soviet Union. This notwithstanding, highlighting the importance of game theory in being able to accommodate, reinforce and structure the strategic theorists' thinking about the Soviet-American conflict, and nuclear war, begs the question as to its actual usefulness as a tool of analysis for them.

This also bears on some other issues and questions which were of great importance to practitioners of the discipline of strategic studies, questions and issues which were as will be seen taken up by Thomas Schelling in *The Strategy of Conflict*. One of the most significant of these was how far the theory of deterrence had developed by the end of the 1950s and what factors had prevented it from developing further. Related to this was the question of what were the theory's strengths and weaknesses, and what conditions would have to be satisfied in order to ensure the theory's ongoing and fruitful development, that is, systematisation and formalisation.

The question of the usefulness of game theory in strategic analysis was taken up by Schelling at the end of the 1950s. He deals with the question by considering how far the "concept" of deterrence had been refined and developed since it was first articulated twelve or so years before. As seen in the Introduction to the thesis, Schelling believed that the process of improving and refining the concept of "deterrence" had been slow and was still incomplete. He thought that the concepts associated with the theory were vague and that the theory therefore remained inelegant. This was because those who had "grappled" with "deterrence" and related ideas had been "mainly preoccupied with solving immediate problems" rather than with constructing a "theoretical structure" and developing a "methodology for dealing with problems". Here, Schelling may well have been thinking of Wohlstetter. In any event, thought Schelling, thus far, there was not
even a "decent terminology" of deterrence.\textsuperscript{103} Again as seen in the introduction, Schelling believed that this lack of theoretical development was due to there being no academic counterpart to the military profession and, more importantly, that the traditional skills of the military profession had become outdated in the nuclear era where the non-use of force rather than its application was, or should have been, the order of the day.

Notwithstanding the continuing vagueness and inelegance of the theory of "deterrence", some progress had yet been made during the period in which it had first appeared on the intellectual horizon. It had been learned that the efficacy of a threat depended on its credibility which in turn depended on the "cost and risks" of fulfilment of the threat for the party which made it. In similar vein, it had been learned that the credibility of a threat was partly a function of the threatening party's commitment to its "fulfilment" which it could demonstrate, for example, by stretching a "trip wire" "across the enemy's path of advance".\textsuperscript{104} There was a recognition that the credibility of the threat of massive retaliation could be undermined by a "readiness to fight a limited war" because, in the event of the outbreak of hostilities, this readiness preserved for the United States (and the adversary) the "choice of a lesser evil".\textsuperscript{105} It had also been learned that the "...threat of massive destruction may deter an enemy only if there is a corresponding implicit promise of nondestruction in the event he complies, so that we must consider whether too great a capacity to strike him by surprise may induce him to strike first to avoid being disarmed by a first strike from us."\textsuperscript{106} For Schelling, if progress were to be made in developing and refining the concept of "deterrence" beyond what had already been learned, then the analysis of it had to be more fully incorporated into the framework of game theory. Though Schelling does not mention it, this would in effect ensure that the discipline of strategic studies would continue to develop within the rigid conceptual framework that

\textsuperscript{103} Ibid., pp. 7 and 8
\textsuperscript{104} Ibid., p. 6
\textsuperscript{105} Ibid.
\textsuperscript{106} Ibid., pp. 6-7. Schelling also notes (p. 7) that consideration had been given to the possibility that, by improving mutual mutual deterrence, arms control might be able to serve as a measure to "safeguard against surprise attack".
Wohlstetter had done so much to construct in his classified studies and published work. (As will be seen, Schelling also thought that game theory needed further development and refinement.)

As seen above, Schelling demonstrated that the problems of limited war and tactical nuclear weapons could be incorporated into the framework of game theory. In his analysis of "deterrence" he was intent on showing that "deterrence" could likewise be incorporated into this framework by demonstrating how important tacit bargaining, negotiation, and manoeuvre were in efforts to deter a surprise attack and general nuclear war. All the while Schelling's major concern was with demonstrating that the role of nuclear weapons was not to be used in limited or general war, neither for pre-emption nor retaliation, but to deter or prevent the use of nuclear weapons by the retention of their retaliatory capability. He was, therefore, in effect laying down the conditions under which the further systematisation and formalisation of deterrence theory would or should proceed. As in limited war, the success of the efforts to ensure that nuclear weapons would be "used" for "deterrence" depended on co-ordinating the expectations of the two sides which in turn depended on the clear and unambiguous signalling of intentions between them. In the end, bargaining, negotiation and manoeuvre were possible in limited war situations because "...in addition to the divergence of interest over the variables in dispute, there is a powerful common interest in reaching an outcome that is not enormously destructive of values to both sides."107 It was precisely this "powerful common interest" which meant that "deterrence" could also be fit into the framework of game theory.

In Schelling's view, most situations of international conflict, or almost any other sort of conflict, were ultimately bargaining situations, in other words, "situations in which the ability of one participant to gain his ends is dependent to an important degree on the choices or decisions that the other participant will make". Bargaining was possible because the two sides had an interest in achieving outcomes that were advantageous to both. The theory of games described such

107 Ibid., p. 6
conflicts as "variable-sum games". In these games, the "sum of the gains of the participants is not fixed" as it is in "constant-sum-games" where more gains for one participant "inexorably means" less for the other.\textsuperscript{108} Because Schelling viewed conflicts as bargaining situations, his usage of the term "strategy" was different from the military usage. In fact, the term "strategy" which he used was taken from the theory of games. Game theory "distinguishes games of skill, games of chance, and games of strategy, the latter being those in which the best course of action for each player depends on what the other players do." Thus "strategy" as the term was employed in game theory focused "...on the interdependence of the adversaries' decisions and on their expectations about each other's behavior."\textsuperscript{109} This again was meant to demonstrate the relevance and usefulness of game theory to the analysis of "deterrence".

According to Schelling, "deterrence" was concerned with "influencing the choices that another party will make" "by influencing his expectations of how we will behave" and "confronting him with evidence for believing that our behavior will be determined by his behavior".\textsuperscript{110} For this reason, "deterrence" did not involve the "application" of force. This was the proper concern of the military profession, the concern which chiefly governed the profession's use of the term "strategy". In contrast, "deterrence" involved the "threat" of force and the "exploitation of potential force". Threatening force and exploiting potential force were concerned with "persuading the potential enemy that he should in his own interest avoid certain courses of action" such as launching a surprise attack. "Deterrence", in other words, involved the skilful and efficacious "nonuse" of military force.\textsuperscript{111} Thus the problem of "deterrence" seemed perfectly suited to inquiry and analysis using game theory. However, in Schelling's opinion, while game theory had shown promise "fifteen years ago" this was so far unfulfilled. It had "been extremely helpful in the formulation of problems and clarification of concepts", but its "greatest successes" had been in fields outside of international strategy and

\textsuperscript{108} \textit{Ibid.}, p. 5
\textsuperscript{109} \textit{Ibid.}, p. 3, n. 1
\textsuperscript{110} \textit{Ibid.}
\textsuperscript{111} \textit{Ibid.}, p. 9
strategic theory. Game theory had been pitched at such a "level of abstraction" that so far it had made only "little contact with the elements of a problem like deterrence." In a series of questions, Schelling revealed what he considered to be among the most important of these elements. These questions also demonstrated what "theory" in the field of "strategy" (as defined by game theory) would consist of:

... what configuration of value systems for the two participants -- of the "payoffs", in the language of game theory -- makes a deterrent threat credible? How do we measure the mixture of conflict and common interest required to generate a "deterrence" situation? What communication is required, and what means of authenticating the evidence communicated? What kind of "rationality" is required of the party to be deterred -- a knowledge of his own value system, an ability to perceive alternatives and to calculate with probabilities, an ability to demonstrate (or an ability to conceal) his own rationality?

Bargaining and negotiation ("communication") between the United States and the Soviet Union were possible because, while there was conflict between them, there was also a "powerful common interest" in avoiding mutual destruction (bearing in mind that the destruction of one would entail the destruction of the other). Nevertheless, for Schelling, game theory would make contact with the elements of the problem of "deterrence" only when it was able to offer specific suggestions on how bargaining and negotiating could proceed between the two sides in the conflict. The fundamental problem, as he had demonstrated in his analysis of limited war and tactical nuclear weapons, was with co-ordinating the expectations of the two sides and with specifying the conditions and circumstances under which they would be able clearly and unambiguously to signal their intentions to each other.

Thus, for Schelling the further systematisation and formalisation of deterrence theory, and development of strategic studies, depended on the further

112 Ibid., pp. 9 and 10
113 Ibid., pp. 13-14
development of game theory so that it could be fruitfully used in analysing this problem. While deterrence theory had already undergone some fruitful development, it had been inhibited by being predominantly focused on problems of an immediate nature. According to Schelling, what were needed were a proper theoretical structure, methodology and vocabulary of “deterrence” that would widen its focus and therefore make it more generally relevant to strategic analysis. For its part, game theory had for Schelling been pitched at too high a level of abstraction and therefore had been unable to offer much of value in the analysis of the problems of “deterrence”. It appears that in calling for deterrence theory to widen its focus beyond immediate problems and for game theory to engage more directly with the problems of deterrence he wanted to bring the two more closely together. Indeed, Schelling seems to have been intent on making game theory and deterrence theory one and the same thing. While this was no doubt an extreme position, the tendency to systematisation, formalisation and abstraction had been evident in deterrence theory and strategic studies almost since their inception. Schelling simply wanted to push it further than it had already come by the end of the 1950s. Even if Schelling’s hopes were realised, therefore, systems analysis and, more generally, the quantitative methods of economics, would still constitute the basis of the usefulness of game theory to strategic analysis.

The “rationality” of game theory was exactly the same as that for classical economics. States were accordingly treated as rational self-interested value or utility maximizers. The assumption that values or utilities were measurable and quantifiable, a fundamental assumption of neo-classical economics, was also fundamental to game theory. Only on the basis of this assumption could the “payoffs” or outcomes of the choices which each side made be calculated, the credibility of threats assessed, and a mutually beneficial configuring of the threats made by each side ensured. Given that game theory was a constituent element of the deterrence paradigm, the assumption was also fundamental to the systematised and formalised theory of deterrence which developed through the 1950s. While the assumption that states were rational, self-interested value maximizers provided the theoretical basis for the calculation of payoffs or outcomes, the
quantitative methods of economics actually enabled these to be calculated. These same methods of quantification had also been incorporated into systems analysis. They enabled the cost and effectiveness of competing nuclear weapons systems to be measured. Cost and effectiveness were measured in terms of the ability of these weapons systems to serve the purpose of "deterrence". This purpose would be served only if the weapons retained their retaliatory capability after enduring a surprise attack. Without such a capability, the weapons would be unable to "deter" such an attack.

6.6 Conclusion

Through the 1950s, the theorists' conception of "deterrence" and the planners' conception moved further and further apart. The two groups responded to the same strategic developments: the United States' equipping itself with thermonuclear weapons and intercontinental bombers, and the subsequent acquisition by the Soviet Union of these capabilities. For the theorists, these strategic developments served only to validate and increase the relevance of Brodie's earliest ideas on "deterrence". Indeed, Wohlstetter's analysis of "vulnerability" was effectively a confirmation of the correctness of Brodie's insights and foresight. Solving the problem of "vulnerability" would preserve the retaliatory capability of nuclear weapons thus obviating their use, either retaliatory or pre-emptive. On the other hand, the developments persuaded the planners that the only way to prevent or deter a Soviet first strike was to pre-empt it. The novelty in Brodie's discussion of "deterrence" in *Strategy in the Missile Age* was that he attempted to conflate the two conceptions of "deterrence" by showing that "deterrence" by protection of a massive retaliatory capability and "deterrence" by pre-emption could be achieved by one and the same strategic striking force. However, he did not abandon his belief that his own conception of "deterrence" was the more correct one. Indeed, through 1950s he became more and more convinced of this.

If the above strategic developments caused the strategic theorists to find solace in Brodie's conception of "deterrence", then the arrival of tactical nuclear weapons
was an entirely discomfiting and unwelcome occurrence. The whole problem of
limited war was that tactical nuclear weapons seemed to be more useable their
strategic counterparts and thus threatened to undermine the overriding purpose of
nuclear weapons which was to avert or deter general nuclear war between the
United States and the Soviet Union. As both Brodie and Schelling argued, this
problem could perhaps be overcome if the “vast watershed” of difference between
the use and non-use of nuclear weapons were preserved and reinforced. For
Schelling, as for Brodie, this in turn depended on conventional weapons being
sharply differentiated from nuclear weapons. Schelling’s analysis of limited war
was an attempt to fit the problems of limited war and tactical nuclear weapons
into the framework of game theory by showing how the theory could help in
ensuring that these differences and distinctions could be maintained and
reinforced. By fitting limited war and tactical nuclear weapons into the framework
of game theory, he wanted to show that they were within the ambit of the theory
of nuclear deterrence, and the discipline of strategic studies. Similarly, Brodie
wanted to show that limited war and tactical nuclear weapons did not undermine
the theory of “deterrence” he had founded but could more or less comfortably be
incorporated within it.

The use of systems analysis to analyse the problem of “vulnerability”, and to
determine the most cost-effective system of bases for the strategic bombers, was
indirectly an application of game theory to this problem for it at once reinforced
and structured the thinking behind Wohlstetter’s bases study. At bottom, the
study, and Wohlstetter’s subsequent works, applied a simple-minded line of
reasoning to the problem: the closer we are to them, the closer they are to us with
the doxa (and Air Force Intelligence) adding that they were therefore more likely
to hit us first than we were to hit them. In essence, nuclear war was a game played
for incredibly high stakes. Ever since Brodie had first put his thoughts on the uses
and purposes of nuclear on paper, there had been a tendency to view nuclear war
as a kind of gruesome game of ping-pong. Systems analysis and especially game
theory took this tendency to a higher level of abstraction. Both employed the
concepts and methods of quantitative economics. Moreover, game theory was
based on the same assumption about human behaviour as classical economics. The systematisation and formalisation of Brodie's conception and theory of deterrence amounted to the development and application to strategic analysis of systems analysis and game theory, a process in which the RAND Economics Division played an absolutely crucial role. As the systematisation and formalisation of Brodie's conception of "deterrence" proceeded, so did strategic studies become more and more abstract and therefore less and less relevant to the practical concerns of the military planners. The realisation of Schelling's hopes for the further development of the theory would only have pushed it further in this direction.
CONCLUSION

DISCIPLINE AND THREATENED PUNISHMENT:
THE THEORY OF NUCLEAR DETERRENCE AND
THE DISCIPLINE OF STRATEGIC STUDIES, 1946-1960

This thesis has shown that, in reconstructing the history of the discipline of strategic studies—which by the mid-1950s had become systematised and formalised deterrence theory—taking a traditional approach to disciplinary history would have produced entirely unsatisfactory results. It has also demonstrated that an approach which regards a discipline either as a static or developing social structure, what can be called a sociological approach, would have produced an equally unsatisfactory history of the discipline.

The traditional approach, which focuses on the “inside” of a discipline, is primarily interested in such matters as identifying the point or period in time when the discipline coherently came together, and, whether its emergence as a discrete discipline was a break with what went before, or was a cumulative development on what had preceded it. The traditional approach is concerned with a discipline’s unique identity, and therefore seeks to specify the combination of research interests, methods and techniques which mark it off from other disciplines. Similarly the approach which treats a discipline as a static or evolving social structure is concerned with the “inside” of a discipline. It seeks to identify, describe and explain such characteristics of a discipline as the institutional and hierarchical distribution of research interests, differences in forms of work organization and publication practices, and the intensity of competition and collaboration in the field. The static variant looks at these characteristics at a particular point in time, the developmental or evolutionary looks at their development over a certain period of time. Because both these approaches operate on a micro-level of analysis, they disregard the “outside” or wider academic, social and political context of a discipline. They therefore fail to show how the
“inside” of a discipline connects and interacts with its wider academic, social and political context.

Also rejected in this thesis has been the approach recommended by Hamilton Cravens. This approach is concerned with “broader perspectives” than a traditional disciplinary focus incorporates. Accordingly, it regards the issues which are central to traditional disciplinary history as being secondary to larger areas of inquiry and analysis, such as how knowledge is produced and used in society, how different cultures and sub-cultures organise the production and appropriation of knowledge, and how knowledge is disseminated throughout and between societies and cultures. The problem with this macro-level approach is that it fails to engage with disciplines qua disciplines and, therefore like its micro-level counterparts, does not show the connections and interactions between the “inside” and the “outside” of a discipline. Neither the micro-level approaches nor the macro-level approach are able to explain how events, institutions and process in the wider context can have any involvement in the emergence and formation of a discipline and subsequently play a part in moulding its internal characteristics, in influencing its ongoing development.

This thesis has attempted to demonstrate that the “inside” of the discipline of strategic studies was closely connected with events, processes, and agencies and institutions in the immediate context. Moreover, it has shown that the “inside” of strategic studies was also connected with events and process in the more spatially and temporally removed social and political context. By employing the concepts of “paradigm” (and “intellectual framework”) and “doxa” a sophisticated understanding was reached of how strategic studies connected with and interacted with the wider social and political context. This also made it possible to explain how events, processes, institutions and so on in the wider context helped to bring about the emergence of deterrence theory and strategic studies and influenced their subsequent development.
In the immediate context, the Strategic Air Command, the United States Air Force, the Joint Chiefs of Staff, the National Security Council and the RAND Corporation itself were the key agencies and institutions which shaped the development of the “inside” of strategic studies. Major events in the immediate context which had an impact on the “inside” of the discipline included the Soviet atomic test in 1949, the development of the hydrogen bomb and bombers of intercontinental range, the Korean War, and the coming of tactical nuclear weapons and their stationing in Europe.

The intensifying Cold War conflict and nuclear arms race between the United States and the Soviet Union were processes which were carried into the immediate context of strategic studies by the agencies and institutions which were also located in its immediate context. Strategic studies and these agencies and institutions all developed and operated within the context of the unfolding Cold War and arms race. The events listed above were events in and of this unfolding. The doxa enabled this process, and the events which were part of it, to be interpreted and understood in such a way as to confirm the moral superiority and righteousness of the United States. It also sanctioned the activities of the agencies and institutions and their personnel—the policy makers, planners and theorists. However, the doxa was filtered through, on the one hand, the deterrence paradigm and, on the other, the intellectual framework of pre-emption.

The theorists, planners and policy makers were united by the doxa in the view that the Soviet Union was planning to launch a devastating pre-emptive strike, that it would probably do so, and that in all likelihood it would be successful. This view was founded in the doxa, the collection of deep geopolitical, ideological and cultural assumptions that lay beneath, supported and legitimised both the paradigm and the intellectual framework. Containing assumptions and presuppositions about the place and role of both the United States and the Soviet Union, it also helped to explain their enmity. The doxa’s portrayal of the United States was as the hero of the post War world, the Soviet Union was the villain. It provided an authoritative and self-serving interpretation of American history. The
"manifest destiny" of the United States since the middle of the Nineteenth Century had been to head the capitalist world-economy and lead the "free world". In interpreting Soviet history, the doxa found a regime whose history had prepared it for totalitarianism, aggressive expansionism, and internal and external tyranny.

The thesis has shown that the strategic theorists' deterrence paradigm stood between the doxa and the discipline of strategic studies which they developed. It also showed that the intellectual framework of pre-emption stood between the doxa and the nuclear weapons policy and strategy which the policy makers and planners devised. It was noted that "stood between" was meant to convey the idea that the paradigm was at the intersection of the theorists' assumptions about the purpose of nuclear weapons and the broader ideological, geopolitical and cultural assumptions which comprised the doxa. The intellectual framework was at a similar point of intersection for the policy makers and planners. The doxa underpinned and legitimised the assumptions and beliefs about nuclear weapons which made up the deterrence paradigm and the assumptions and beliefs which made up the intellectual framework. Nevertheless, it neither prescribed that the sole purpose of nuclear weapons should be deterrence nor explicitly sanctioned the planning for the massive, pre-emptive use of nuclear weapons.

The deterrence paradigm and intellectual framework were anchored by the doxa to the wider social and political context. The doxa grew out of, was supported by, and provided authoritative interpretations of the encompassing social and political context. In turn, the deterrence paradigm and intellectual framework emerged from and were supported by the doxa. Thus, the paradigm and the framework were englobed within the same context.

The deep, underlying assumption of the deterrence paradigm was that nuclear weapons were qualitatively different from conventional weapons. This supported the belief, also central to the deterrence paradigm, that "deterrence" was the sole purpose of nuclear weapons. That "deterrence" was the sole purpose of nuclear weapons in turn supported the view that only if their retaliatory capability were
protected would they be able to fulfill this purpose. "Vulnerability" and "deterrence" were thus twin concepts. Game theory was a central element of the paradigm. Its use in strategic analysis took to a higher level of abstraction the view that had been implicit even in Brodie's earliest writings on "deterrence, namely, that nuclear war was some sort of gruesome but childlike tit-for-tat game played by the United States with the Soviet Union. That economics, particularly neoclassical and quantitative economics, provided a model for strategic studies to emulate in its development into a discipline was another important element of the paradigm. Quantitative strategic analysis was equated with good strategic analysis, and both game theory and systems analysis were used as vehicles for the application of the quantitative methods of economics to the analysis of "deterrence" and its requirements. These methods were regarded by the theorists as far superior to those employed by the military profession, which they thought to be obsolete and largely irrelevant in the nuclear era.

Not surprisingly, the constitutive elements of the intellectual framework of pre-emption were rather different. The policy makers and planners conceived of no qualitative distinction between nuclear and other weapons, only one in the degree of effectiveness and efficiency. The planners' view that the only way to "deter" a Soviet attack was to pre-empt it drew on a constitutive element of the modern American military tradition, the belief that the United States military should never relinquish the initiative to the enemy and therefore should, wherever possible, get in the first blow. The other elements of this military tradition were also embodied in American plans for nuclear war with the Soviet Union: the belief in the efficacy of wholesale force; the belief that war was waged in order to bring about the wholesale destruction of the enemy; the view that the objective in war was to force the enemy to surrender unconditionally.

The paradigm and the framework, theory and practice, the planners and the theorists moved further apart during the 1950s under the impetus of the development of thermonuclear weapons by both sides and their acquisition of intercontinental strategic bombing aircraft. For theorists, these developments
hardened the view that "deterrence" should be the sole purpose of nuclear weapons, for the planners that pre-emption was the only way to "deter" a Soviet attack.

The *doxa* matured in the context of the early Cold War. The *doxa*’s assumptions and beliefs about the United States were vindicated by its accumulation of unparalleled economic, political, military and ideological power during the Second World War. In turn, the *doxa*’s assumptions were confirmed and legitimised by the accumulation of power. Similarly, the assumptions and presuppositions about the Soviet Union were confirmed by the substantial increase in military power and territorial extent it experienced as a result of the War. The policy of containment and strategy of deterrence were sanctioned by the *doxa* and emerged from the same social and political context as the *doxa*.

The policy and strategy were based on the same belief in the moral superiority of the United States which belonged to the *doxa*. The belief in moral superiority sanctioned the view that, after the War, the United States was uniquely qualified to exercise leadership over the capitalist world-economy and to assume leadership of the global struggle against Soviet aggression and expansionism.

The important point is that the belief in the moral superiority of the United States also underpinned the theory of nuclear deterrence. The theory, no less than the policy of containment and the strategy of nuclear deterrence, assumed that the United States was uniquely qualified to lead the struggle against the Soviet Union. The theory in effect prescribed a nuclear strategy for the United States, the elements of which came from the deterrence paradigm. The strategy prescribed by the theory was, of course, based on the assumption that the sole purpose of American nuclear weapons should be "deterrence" which was a function of their retaliatory capability.

As argued in the thesis, during the late 1940s and through the 1950s, American "declaratory" nuclear weapons policy was tantamount to a refusal to offer an
official definition of "deterrence" or to say anything about American intentions regarding the use of nuclear weapons. Moreover, it was argued that the theorists' concept of "deterrence" was allowed to stand in the stead of an official definition and thus became in effect the unofficial "declaratory" nuclear weapons policy of the United States. This gave a completely misleading impression of the thrust and direction of American nuclear strategy. However, it was argued that disguising the actual nature of American strategy was an important element in that strategy.

"The gap" which divided the strategic theorists' assumptions about the proper purpose and role of nuclear weapons from the assumptions of the policy makers and planners was an extremely important factor in the development of the theory of nuclear deterrence. This was particularly so after 1949 when the two conceptions of "deterrence" began to move further apart than they had already been at the birth of the theory. Indeed, it has been argued in this thesis that "the gap", and the theorists' perceptions of its significance, was of paradigmatic importance. In analysing and accounting for "the gap", it was shown that the strategic theorists were just as committed to finding practicable solutions to the practical problems faced by the policy makers and planners as were these groups themselves.

"The gap" became wider as the theory was systematised and formalised by the application of systems analysis and game theory to the analysis of "deterrence" and its requirements. As the theory was systematised and formalised, so did the strategy it recommended become increasingly suited to the childish game that the theory imagined nuclear war to be. There was no blood involved, because the theorists' would-be strategy of "deterrence" was intended to obviate any use of nuclear weapons by both sides. Because economics was taken by the theorists as the model for strategic studies to emulate, and as they systematised and formalised the theory of deterrence along the lines which the model suggested, so did the "game" which they imagined nuclear war to be become more and more like the perfect competition of classical economics, that is, a complete fiction and therefore completely irrelevant to the policy makers and planners. In the end, the
strategic theorists preferred superiority in method and technique to relevance and influence over the process of nuclear weapons policy and strategy formulation. Strategic studies crystallised into a discipline as superiority in method and technique increasingly effaced any opportunity for relevance and influence.
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