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Children's recognition of consumption constellations: differences across three age groups

Teresa Davis
University of Wollongong

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CHILDREN'S RECOGNITION OF CONSUMPTION CONSTELLATIONS: DIFFERENCES ACROSS THREE AGE GROUPS

A thesis submitted in fulfilment of the requirement for the award of the degree of

DOCTOR OF PHILOSOPHY

from

UNIVERSITY OF WOLLONGONG

by

Teresa Davis, B.Com, MBA

DEPARTMENT OF MARKETING
2000
DECLARATION

I hereby certify that this thesis has not been submitted previously as part of the requirements of another degree and that it is the result of my own independent research.

Teresa Davis
ACKNOWLEDGEMENTS

I would like to dedicate this work to my family; my parents, my husband and son who have been my strength. I would also like to place on record my gratitude for the unfailing support and friendship of my supervisor Dr Lesley White. The invaluable comments and suggestions of Professor John Rossiter and my other colleagues, I acknowledge with thanks. I would like to thank all my friends who have been supportive of my work, particularly Karin, Virginia and Norma who gave so generously of their time and patience.
This research focuses on children's recognition of consumption constellations and considers how such recognition of constellations varies across three age groups. Consumption Constellations are defined as "clusters of complementary products, specific brands and/or consumption activities used by consumers to define, communicate and enact social roles" (Solomon and Buchanan 1991, p.191). Consumption Constellations are seen as part of the larger concept of Consumption Stereotypes (Belk 1984). Consumption Stereotypes consisting of an owner and a consumption constellation were used in this research and occupational stimuli were used to determine if child consumers could recognise which consumption constellation 'belonged' to which owner.

The Dual component model of Consumption Constellations is offered as explanation, consisting of two elements - the common cultural base of a consumption stereotype and an individually varying component. The two components it is suggested, differ in the ways they are learned and acquired. The common cultural base is learned through indirect or non-experientially learned socialisation agents such as mass media, peers and parents/adults (Solomon 1983). The individually varying component is learned through direct/experiential sources. This experiential component makes the enactment of the same social role by two or more individuals within the same cultural context unique.
It was hypothesised that children within a common cultural context would have, as part of the process of consumer socialisation, some knowledge of the common consumption stereotype (and therefore of consumption constellations). It was hypothesised that even young children below the age of seven (Piagetian pre-operational developmental group) would have some understanding at the base cultural stereotypical level of such owner-product groupings that are non-experientially learned. Further it was hypothesised that older children having more direct experience in consumption matters and knowing more people, would be able to describe more Alternative Non-Stereotypical Constellations in their description of the same occupational/social roles.

Three age groups of children comprised the sample. Five-six year olds, eight-nine year olds and eleven-twelve year olds were chosen, equally distributed over three socio-economic classes and the two genders. Since the consumption stereotypes are assumed to exist in a culturally common context, the sample was a culturally homogeneous one. The children’s age and their occupational/social role familiarity were operationalised as the independent variables and differences in the children’s recognition of Stereotypical consumption constellations (SCCS) and their ability to describe Alternative non-Stereotypical Consumption Constellations (ASCCS) were used as dependent variables to assess differences across the age groups. The main Piagetian Developmental Stage based differences hypothesised were supported by the results. However, some interesting departures from the Piagetian stages were observed, especially in the pre-operational group of children.

This research makes contributions to the Consumption Stereotyping literature in two distinct ways. It identifies and establishes some baseline information about when an
understanding and recognition of Consumption Constellations occurs in young children.

The second distinct contribution is in the area of research task design. The use of a non-verbal/pictorial task sets guidelines about tailoring research tasks to suit young children’s cognitive abilities.

This thesis reports on the background literature to the research, describes the methodology employed, discusses the results, the limitations of the study and proposals for future research are presented.
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CHAPTER 1: INTRODUCTION

1.1 BACKGROUND AND CONTEXT OF THE RESEARCH

Most people would be able to describe a ‘yuppie’ as a person with a collection of goods that relate particularly to a 1980’s lifestyle of consumer excess. Typically the description would include brand names of luxury cars, clothing and accessories creating a collective stereotype. Such a consumption stereotype really consists of two elements - the owner and a group of products that group together because of a clearly identifiable lifestyle.

That a group of goods consumed sometimes forms a pattern that distinguishes one lifestyle from another was first noted by the eighteenth century French philosopher Diderot (Bowen 1956). This harmony or consistency between groups of goods that ‘go together’ has been described by McCracken (1988) as ‘Diderot Unities’. Solomon and Assael (1987) name these symbolically complementary groupings which are associated with specific social roles, ‘consumption constellations’, defining them as “clusters of symbolic, complementary products, specific brands and consumption activities used by consumers to define, communicate and enact social roles” (p.191).

Such stereotypical descriptors are used and understood by adult consumers in a specific consumption context. The symbolic property of specific product and brands has been well recognised in anthropological, sociological and consumer behaviour studies. How these stereotypes are learned and acquired is not entirely understood.
While consumption symbolism has been a growing area of research within consumer behaviour, most research has concentrated on adult experiences. Consumer socialisation, defined as “processes by which young people acquire skills, knowledge, and attitudes relevant to their functioning as consumers in the marketplace” (Ward 1974, p.2) has been another area where significant research with child samples exists. In her comprehensive twenty-five year retrospective on consumer socialisation of children research (1999), John refers to only five studies which focus on the development of consumption symbolism in children.

In considering consumer stereotyping, Belk, Mayer and Driscoll (1984) have used a child sample in their study of consumption symbolism. However this is an isolated study which was conducted with individual products rather than groups or constellations of products. There is no study that explores the development of such understanding in children. As Ward (1974) observed, “one needs to understand how children acquire attitudes about the ‘social significance’ of goods, or more precisely, how people learn to perceive that the acquisition of some kinds of products or brands of goods can be instrumental to successful social role enactment” (p.3).

A better understanding of differences in the understanding and use of consumption stereotypes by child consumers would benefit marketers. The planning of advertising messages and other market communication efforts could be more specifically targeted if such differences were better understood. Implications for multi-product/brand advertising also exist, if baseline information regarding when such consumption symbolism develops is known. This study therefore concentrates on this neglected research issue.
1.2 RESEARCH QUESTIONS

The purpose of this research is to add to the work done on consumption stereotyping with particular reference to consumption stereotypes consisting of owners and consumption constellations. The specific contribution is that this research has used a child sample and has addressed age-related differences in children's understanding and use of lifestyle based consumption constellations. The specific research questions addressed by this study are:

1. Can children below the age of seven (pre-operational cognitive developmental stage), accurately identify stereotypical consumption constellations?

2. Do older children (early concrete operational and late concrete operational cognitive children) more accurately identify the stereotypical consumption constellations and describe alternative, non-stereotypical consumption constellations than children in the pre-operational stage?

3. Can the differences in the identification and understanding of such stereotypical consumption constellations between these three age groups of children be explained by the Piagetian cognitive developmental stages (Piaget 1970)?

4. Does Social/Occupational role familiarity increase children's understanding of non-stereotypical/alternative consumption constellations regardless of age?

Chapter 3 describes these research questions and the specific hypotheses related to these questions. The first part of the research consisted of building stereotypical consumption constellations for specific occupational roles. The choices with regard to the
occupational roles and consumption constellations are discussed along with the rationale in Chapter 4.

1.3 CONTRIBUTIONS OF THE RESEARCH

This research aims to make contributions in two areas. The first is to the academic literature on understanding the child consumer and the second is to the practitioner literature. Both these contributions are specifically identified in the following sections.

1.3.1 Academic Contributions

This research makes contributions to the academic literature in four distinct ways. To research in the area of consumption stereotyping, this study makes an unique contribution by using a child sample. Traditionally the difficulty of using very young children in such research has resulted in little work being done with children with some notable exceptions (Belk 1982). This study aims to provide age related guidelines about how children over three age groups understand and use consumption constellations. The results will provide a basis for future studies in consumption stereotyping with implications for planning marketing communications studies and targeting.

Second, this study used groups of product/brands as stimuli. Belk (1982) used a child sample and a pictorial task to study developmental differences in the understanding of Consumption Symbolism. However single pictures were used and not a constellation based on lifestyle. Belk himself suggests that there is
need to look at a group rather than single brand in his definition of consumption stereotyping in terms of consumption objects rather than object.

The third contribution that this research aims to make is methodological. The visual matching task developed in this research is especially suited for research with young child samples. The method of generating a consumption constellation from a representative adult sample to use as a basis for building pictorial stimuli for use with a child sample is unique. This study identifies some guidelines regarding research task design for young child samples.

The fourth contribution that this study makes, is that it goes some way toward correcting the paucity of Australasian research with children in consumer socialisation/consumption symbolism studies. Most research with children in these areas of consumer behaviour research has been carried out in the North American context. This is therefore a unique research contribution.

1.3.2 Managerial Contributions

This research would be of interest to three groups of practitioners. To the marketing practitioner, the results of this research provide information about how and when young consumers make owner - consumption constellation associations. It also provides specific information about the differences in the understanding and use of such associations over three age groups among children. This information would be of value when planning marketing communications and promotions of products aimed at the child consumer. This would involve planning for both children’s products as well as for adult
products, in which children have indirect persuasive influence in the purchase decision. It could help in marketing communications planning for adult products that look to child consumers as their future market. It would also help in making decisions about how best to position one's brand and optimally make use of the existing associations and stereotypical groupings held by young consumers. Such information could be used as the basis to build more enduring brand associations.

The second group to whom the results of this research would be of interest are educators. To those involved in curriculum planning and media education, these results provide guidelines about how children in different age groups understand owner - product grouping associations and stereotypes. This would help in planning and delivering more effective advertising and social imaging curricula.

The third group to whom this research would be useful are policy makers. Much of the legislation of advertising directed at child audiences has been based on research with controversial and sometimes inconclusive evidence. This research aims to provide some clear baseline information about when children understand consumption stereotyping and how such knowledge and the use of it varies over three age groups. It could therefore aid in making better judgements about what kind of product - social group associations and representations can be made in advertising and promotional activities directed at children of different age groups.
1.4 METHODOLOGY

1.4.1 Research Design

This research used a stratified sample of 175 school children across the Illawarra (Southern Coast, New South Wales School District) in Australia. Children were assessed to determine which Cognitive Development Stage they belonged to before completing a visual matching task and a short individual interview.

The sample was drawn from the Directory of New South Wales Government Schools (1996) and the Directory of New South Wales Non-Government Schools (1986), both published by the Department of Education (New South Wales). The final list of five schools included one large public (government) school, two Catholic schools, one Non-denominational Christian school and one private school. The final sample consisted of 97 female and 78 male schoolchildren. These consisted of 66 belonging to the 5-6 year age group (Kindergarten class), 48 belonging to the 8-9 year age group (Year Three class), and 61 belonging to the 11-12 year age group (Year Six class). The sample selection and rationale are discussed in Chapter 4, Section 4.3.3.

Because of the ethical considerations of carrying out research with children, permission had to be granted by the Wollongong University Human Research Ethics Committee, the Department of Education, The Catholic Board of Education, administrative bodies of the private schools, the principals of individual schools, the parents of the children, and in the case of the older children; individual written consent forms. This caused some bias in the sample
caused by self selection which could not be avoided. However the final list of 5 schools were a fair representation (based on the mix of private/public, socio-economic neighbourhoods and religious affiliation of the schools) of the lower middle, middle and upper middle class Australian school children of Anglo-Celtic origin. A more complete description of the research design is contained in Chapter 4.

1.4.2 Data Analysis Techniques

Data analyses were carried out in three phases. The first phase consisted of the reliability and validity testing of the data collection instruments. The second phase consisted of descriptive and summary data descriptions being compiled of the data sets. The third phase consisted of carrying out specific analytical procedures that addressed individual hypotheses. Stepwise partial regression procedures were used along with one-way ANOVAS and in some cases Factorial ANOVAS. These were, where appropriate, followed by appropriate Post hoc tests. A fuller description of the data analyses procedures and results are presented in Chapter 5.

1.5 DEFINITION OF TERMINOLOGY USED

1.5.1 Consumption Constellation

This research has adopted the Solomon and Assael (1987) definition of the consumption constellation as "clusters of symbolic, complementary products, specific brands and consumption activities used by consumers to define, communicate and enact social roles" (p.191). The key elements of this definition
are that such constellations are the symbolic and lifestyle basis of the product complements. The ability of the products contained in the set to 'communicate' certain symbolic messages about the owner's lifestyle is integral to the manner in which consumption constellations are used in this research.

1.5.2 Consumption Stereotype

The general definition of the term 'stereotype' used in this research is that given by Leyens et al "shared beliefs about person attributes, usually personality traits, but often also behaviors, of a group of people" (1994, p.11).

Consumption stereotyping is used throughout this research as in the consumption symbolism literature. Belk et al (1982) define "Consumption stereotyping as the tendency to make inferences about others based on their choices of consumption objects". In this study the term 'consumption stereotype' is used to mean the combination of owner and related consumption constellation (p.4).

The 'Stereotypical Consumption Constellation Score' (SCCS) is the operationalisation of the consumption stereotype. The score is based on the accuracy of the visual matching task involving matching owners to groups of branded products. The creation of the stereotypical consumption constellations and the scoring method is described in Chapter 4. The Alternative Non-stereotypical consumption constellation (ASCCS) is the operationalisation of the alternative consumption constellations. The scoring for this task is also described in Chapter 4.
1.5.3 Lifestyle

The term 'lifestyle' is used throughout this research in the sense that Featherstone (1988) uses it "One's body, clothes, speech, leisure pastimes, eating, and drinking preferences, home, car, choice of holidays etc are to be regarded as indicators of the individuality of taste and sense of style of the owner/consumer." (p.83). Thus the concept of the consumption constellation used in this study is grounded in this definition of lifestyle.

1.5.4 Social Role and Social Role Familiarity

'Social role' is used throughout this research to mean 'a behavioural repertoire characteristic of a person or position....a set of standards, descriptions, norms or concepts held (by anyone) for the behaviours of a person or position' (Biddle & Thomas 1966, p.11). In this research, lifestyle has been operationalised using occupation as a proxy. Occupation has been shown to be a major source of information regarding a person's lifestyle and a good predictor of specific consumption patterns as well as class, status, and power (Runciman 1968). Occupation is therefore seen as one of the social roles that people play (Rose 1962, Runciman 1968,

Social Role Familiarity has been operationalised as the score gained on the 'Social Role Familiarity Scale' (SRKS). This scale and its scoring are discussed in detail in Chapter 4.
1.5.5 Piagetian Cognitive Developmental Stages

These refer to the four cognitive developmental stages in childhood described and defined by Jean Piaget (1965). Since the research questions use the Piagetian terminology, a brief description is given below. The term Piagetian stages has been used to refer to the Cognitive Developmental Stages as described by Piaget (1965). Piaget classified children into four main groups based on general cognitive abilities and related these to chronological age in a systematic way.

These developmental stages are widely accepted and used in the disciplines of Education and Child Psychology, and are used in this study. The main stages as defined by Piaget (1965) are as follows:

Stage 1 - Sensori-motor (generally from birth up to 2 years of age) period before the appearance of language: Actions and perceptions are used to understand the world. Even without language, actions are coordinated and consistent. They can incorporate new objects into already existing schemata.

Stage 2 - Preoperational (generally from two years to seven years of age): The appearance of language and with that the understanding and use of symbols and symbolic representation. They can speak of objects and persons not physically present and reconstruct events, tell a story and so on. They are still not able to solve problems of ‘conservation’. When for example, the same volume of water is poured from a tall glass into a flatter (shorter) glass,
children in this stage are unable to recognise that the amount of liquid remains the same (is ‘conserved’). This inability according to Piaget (1965) distinguishes the pre-operational child from the concrete operational child. Abstract ideas and logical reasoning are not fully developed.

Stage 3 - Concrete Operational (generally from eight years to eleven years of age): ‘Concrete operations’ such as those that deal with logical classes and logical relations, or number. The simplest example of this ability is that of classifying objects according to their similarity or differences - the inclusion of subclasses within larger and more general classes/categories. ‘Seriation’ is another operation the concrete operational child is capable of, that the pre-operational child cannot perform. This is the ability to serialise or arrange things in order of size or number. Thus the three cognitive tasks that distinguish this stage from the earlier pre-operational stage are the concrete operational child’s ability to ‘conserve, understand abstract and logical relations’ as well as complete ‘seriation’ tasks.

Stage 4 - Formal Operational (generally above the age of twelve): This stage is characterised by the use of reasoning in new and more sophisticated ways. The best example of their reasoning ability in this stage is their ability to answer questions such as: “If A is bigger than B, and B is bigger than C; which is the smallest number”. They can also utilise combinations (“given 4 colours, combine them two at a time” type tasks).
This study used a sample drawn from three age groups of children. One belonged to the *pre-operational* (five and six year olds) cognitive developmental stage. The other two groups are best described as sub groups within the Piagetian *concrete operational* stage. They are identified as two distinct groups - the *Early concrete-operational* (eight and nine year olds) and *Late concrete-operational* (eleven and twelve year olds) cognitive development stages.

1.6 LIMITATIONS

This research study has two limitations. The first relates to the sample which was subject to self selection bias. This arose from the ethical implications of using children as subjects. This self selection bias was manifest at many levels. The Public school system granted selected access to a particular school, the individual principals were free to refuse permission at the school level, the parents of individual children could accept or refuse permission, and the individual child could refuse to participate.

The second limitation relates to methodological issues. The specific cultural context of the study was a limitation with the stereotypical consumption constellations being developed in a very local context. This was necessary because of the concept of consumption constellations are grounded in a specific cultural context. This however reduced the generalisability of the results to the larger population. The use of a child sample consisting predominantly Australians of Anglo-Celtic origin also decreases the generalisability of the results even across the very ethnically diverse population of Australia. This again is a factor of the cultural contextuality of consumption symbolism, since subjects had to have been through the socialisation process in one
culture. This was also done in an attempt to minimise the confounding effects of different cultural backgrounds. Additionally methodological issues arise from the use of the Social Role Familiarity scale which was developed for adult samples, and the verbal content in the measurement of the ASCCS variable which might have created a bias in favour of the older children.

Thus due to the main limitations of the representativeness of the sample and the very specific cultural context of the study, generalisability of results across the population and across other cultures may not be appropriate.

1.7 OUTLINE OF THE THESIS

This thesis consists of six chapters. Chapter 2 is a review of the relevant literature. Since this study is grounded in theoretical and conceptual context that is drawn from many disciplines this chapter is divided into three sections. These sections cover the contributions from the fields of Social Anthropology, Social Psychology and Developmental Psychology. Specific conceptual ideas from each discipline are drawn together to form the main assumptions on which the research questions of this study are founded.

Chapter 3 explains the rationale for, and lists the research questions. The specific hypotheses to be tested in this research are also stated.

Chapter 4 outlines and describes the methodology of the research. This section includes justification for the design, sampling method, data collection measures and the actual
data collection techniques. It also profiles sample characteristics and the operationalisation of the variables.

Chapter 5 describes the data analyses used. This is done in three sections. First descriptive and summary profiles of the data are presented. The second section explains the reliability and validity of the instruments. The third section describes specific analytical methods used to address the five hypotheses.

Chapter 6 summarises and discusses the results. It also describes a possible Piagetian framework across the three age groups in patterns of understanding and use of consumption constellations. Finally, implications, limitations and suggestions for future research are offered.

1.8 CONCLUSION

This chapter has presented an outline of the thesis. It has summarised the background to the research, and stated the research problems that it addresses. The contributions of the research are detailed. The methodology is explained, the terms used defined and the limitations highlighted. Finally the outline of each chapter of the thesis is mapped. Having built the context the next chapter describes in detail the literature relevant to this study.
CHAPTER 2: REVIEW OF THE LITERATURE

This chapter provides the background information for this research that explores children's recognition of social role related stereotypical consumption groupings. It reviews past research literature to identify research gaps. This literature review extends beyond the related consumer behaviour research studies. This is necessary because much of this research is based on theories and concepts from many disciplines. The following review therefore draws upon a multi-disciplinary body of knowledge and traces its links, both theoretical and empirical, to the present research.

Threads from three theoretical areas are drawn to build the assumptions on which this research rests. From the Social Anthropological study of Consumption Behaviour the following ideas are drawn:

- That consumption socialisation is specific to a cultural context.
- That social roles and lifestyles are defined within that cultural context.
- Lifestyle based product groupings are used to support the playing of a particular social role.
- Owner-product groupings can be perceived as a consumption stereotype.

From Cognitive Psychology the following ideas are drawn:

- That stereotypes are 'shared' within a cultural context.
- That stereotypes perform a function of differentiation between social groups.
• That social stereotypes of groups of people almost always include consumption products.

From Developmental Psychology the following ideas are drawn:

• That even very young children make socio-economic distinctions, based on peripheral cues such as appearance (products used etc.).
• In making socio-economic distinctions younger children tend to maximise differences and minimise similarities (which is typical of stereotyping as described by the social cognitivists).
• In designing research tasks for young children, the researcher should use familiar settings, minimise distracting information or cues, and provide rich contextual, relevant cues.

This chapter is structured in three sections; one dealing with each of the three above mentioned disciplinary theoretical sources. These multi-disciplinary theoretical threads are drawn to build the central argument that consumption constellations are part of a larger social stereotype. The main argument also assumes that children socialised within that cultural context can identify accurately these consumption constellations at least at a stereotypical level.
2.1 CULTURAL ANALYSES OF CONSUMPTION

There has been much written about the relationship between consumption and culture in the past few decades. Simmel (1971) was one of the earliest to consider this link between consumption and culture. He suggested that consumption allowed individuals to attach meaning to objects, creating a system of cultural meaning regarding their experience and life.

This idea has been reinforced by Barthes (1972) with his dual aspects of consumption approach. He speaks of the functional/material need satisfying aspect as only one side of the consumption picture. A second aspect he describes is the symbolic function that exists in goods. Barthes uses the term ‘significations’ to describe the systems of making...
and maintaining distinctions between groups. The symbolic function of consumption is part of this system of significations that he describes.

The ‘object-code’ of which goods form a medium through which cultural meaning can expressed and considered has been referred to by Sahlins (1976). Douglas and Isherwood (1979) have argued the case for the cultural analysis of consumption. They have shown how various areas of consumption activities (food and clothing) have become symbolic acts that have a meaning derived from a cultural framework. They call consumer objects the ‘visible part’ of culture.

The concept of goods serving to create and maintain differences has been suggested by Bourdieu (1984). He uses the idea of the four types of ‘capital’ (economic, cultural, educational and symbolic) that determine what consumption tastes people develop. This according to him creates the ‘distinctions’ within social groups.

The works of many such writers have contributed to the conceptual linking of culture and consumption. The idea is taken further by anthropologists, sociologists and consumer behaviourists who have used cultural structures, symbolic modes, practices and behaviours to better understand consumption.

Levy (1959, 1981) was one of the first to articulate this cultural and symbolic analysis of consumer behaviour. Initially he gave both the functional and the symbolic aspects of consumption equal importance, seeing them both as parts of the whole. In his later work (1981) he suggested the idea of ‘structural symbolism’ as a way of analysing the symbolic and positioned himself as a ‘structuralist’ in his approach. He saw myths and
symbols as explainable in terms of the 'structures' of meanings. Structuralism has a view of culture as a closed, idealist and universal system of meanings that has a direct relation to people and objects in the world (Holt 1997). The structuralist argument that he put forward looks at the world in terms of symbolic codes to be uncovered. He did not engage in any cultural critique of these meanings as did the 'post-moderns' and is in that sense a modernist.

McCracken's (1988) approach is midway between the structuralist and the post-structuralist. His stand is that of a structural/functionalist, seeing the role of goods as serving a cultural 'function' that helps define structures and groups. At the basic level he defines this as a "material culture makes culture material" (1988, p.132) function. He however, sees that goods serve not only to maintain and stabilise cultural and symbolic distinctions, but also as an instrument of change and dissent creating new, radical but still comprehensible distinctions. In this admission, McCracken takes a post-structuralist stand in the sense that "post-structuralists argue that meanings are significantly constituted by the ways in which people act in particular social and historical contexts" (Holt 1997, p.328).

The work of Solomon and Assael (1987) explores the similar idea that cultural and social distinctions are made concrete by not just the consumption of individual goods but by the consumption of groups or 'constellations'. Both McCracken's and Solomon's works are categorised by Holt (1997) as forming part of the 'object-signification analysis' school. McCracken (1988) uses the term 'diderot unities' to describe consumer goods that have some kind of symbolic consistency that bind them together and cause them to be consumed in its entirety rather than individually. These 'unities'
correspond roughly to cultural categories. He names them ‘diderot unities’ after the French Philosopher, Diderot, who first recorded this phenomenon of product consistency. Solomon’s ‘Consumption Constellations’ are a similar idea. He uses lifestyle and social role as the binding force behind his product ‘constellations’ which he defines as “a cluster of complementary products, specific brands/and or consumption activities associated with a social role” (1991, p.235).

Holt’s (1997) criticism of these works rests on what he sees as the principal underlying assumption. “Categories of consumption are imbued with distinct univocal meaning that appeal to some ‘collectivities’ more than others. Since tastes, in this view, are conceived as preferences for particular categories of consumption, they can be inferred directly from the object choices” (1997, p.328). Studies in this category, Holt suggests, assume that meanings are inherent in objects, and that meaning is univocal (single, unambiguous meaning). This charge is not entirely supported. Both McCracken and Solomon while using some of the assumptions of the structuralists, incorporate the concept of the constantly evolving meaning of objects. McCracken (1988) uses the example of the process of new meaning assignment played out by innovative groups such as the ‘hippies’, ‘punks’ etc. The ‘creative acts’ of consumer selection and combination are carried out when they ‘ransack’ the consumer world to pick goods that form their own clearly defined complement of goods creating new patterns of product consistency. In these acts the ‘univocality’ of object meaning is not held. Both of these writers argue that ‘collectivity’ of meaning in the complement or ‘constellation’ is what creates the specific meaning-embedded in cultural and social context. Univocality of object meaning therefore exists in these works only within a given cultural and social context. This itself makes for a post-structuralist argument that the meaning of a group
of consumption objects is inherent only in the socio-cultural context rather than in the consumption object itself (Holt 1997).

Solomon and Englis (1994) consider the role of socio-commercial institutions in the creation of contexts of meanings for consumption objects. In exploring the creation of cultural context for the meaning of groups of consumption objects, they concede that such meaning is drawn from the context and the complementarity of the objects in the group and is not inherent in the objects themselves.

It is within the context of works of these and related researchers that this study is placed. The main assumption drawn from this section is that the meaning of products can be defined only within a specific cultural context.

2.1.1 Lifestyle and Consumption Symbolism

The use of the term ‘lifestyle’ has been used in the past by various researchers in a number of disciplines to refer in a sociological sense to the distinctive style of life of specific status groups (Weber 1968; Sobel 1982; Rojek 1985). Featherstone (1988) uses the term in a more contemporary sense to connote individuality, self-expression, and stylistic self-consciousness. “One’s body, clothes, speech, leisure pastimes, eating and drinking preferences, home, car, choice of holidays, etc are to be regarded as indicators of the individuality of taste and sense of style of the owner/consumer” (Featherstone 1988, p.83).

Featherstone’s definition of ‘lifestyle’ highlights therefore two important aspects of consumption. The first is that consumption is indeed a code or means of
socio-cultural communication. The second assumption made by this definition is that consumers know and understand this code which they then 'use' to communicate or make visible cultural/social statements about individuality and collectivity.

McCracken (1986) makes similar assumptions in his descriptions of cultural categories. He refers to cultural categories as “the fundamental coordinates of meaning” (p.72). They represent the basic distinctions that a culture uses to divide up the socio-cultural world. Some of the most important categories are those that cultures create in the human community- the distinctions of class, status, gender, age and occupation. While McCracken agrees that the code of meaning in products is understood and used by people within the same cultural context, he also considers three other aspects. One is the constant and rapid change to which these categories are subject. A second is the manipulation of these categories by different groups in the cultural context. The careful creation of categories by advertising, media, popular art and the careful shattering of categories by socially radical groups such as punks, hippies, teenagers are examples of this aspect. The third principle is that of apparent, individual choice in the membership of these categories. One’s lifestyle declares to the world which category one belongs to, even if that membership aspires to one category, but is seen as belonging to another - the nouveau riche for example. This lack of clarity and constant state of flux is a characteristic of the Northern American cultures rather than others, and it is in this context that McCracken (1988) makes his observations.
McCracken takes the concept of cultural categories further and describes the role of products in making them substantial. He uses the argument that Austin (1963) and Thambiah (1977) use to say that objects have a 'performative' function - they give cultural meaning a concreteness for the individual that it would not otherwise have. It is a means of visually discriminating between cultural categories. These categories are encoded in the form of a set of material distinctions using goods.

2.1.2 Lifestyles and Social Roles

There appears both in the very definition of social role and in the work of researchers such as Solomon (1983), and Solomon and Buchanan (1991), a clear link between the lifestyles and social roles. Using Rose’s early definition of a role “a set of related meanings that directs the individual’s behavior in a social setting” (1962, p.312) one can relate social roles as defining further the cultural category or lifestyle one belongs to. It must be made clear that some social roles are more definitive than others for this purpose. The role of a doctor is more defining that that of father, though the one person may play both roles. While multiple social roles are inevitable, occupational social roles appear to be most meaning laden for the purposes of classification into one socio-cultural category or the other. Runciman (1968) explains that a person’s occupation is a major source of information regarding his/her expected lifestyle and serves as a barometer of specific consumption patterns as well of class status and power.

The nexus between lifestyle and social class is an intuitively attractive one. While the post modern/post structuralist (Chaney,1996) argument is against the
stability of socio-structural stratification along occupational lines; and makes the case for a definition of lifestyle that is less clearly linked to economic signifiers such as income, occupation and education, the persistence of socio-structural determinants of lifestyle (as described by consumption choices) is overwhelming (Handel and Rainwater 1964, Sobel 1981).

Sobel (1981), found that (at a fixed point in time) an individual’s lifestyle stems from both his relationship with the social system (structured choice) and choices that are idiosyncratic. He describes the 2 elements of Lifestyle as follows; a voluntary element which is best described as consumption choices, values and attitudes and a second involuntary element that consists of circumstance and inheritance. Sobel (1981) describes it thus “lifestyle variation stems form differentiation in the social structure” (pp. 3). He goes on to show empirically that “economic aspects of stratification condition the fashion in which the non-economic aspects differentiate lifestyle” (pp.169).

Giddens (1990) also makes this link between occupation, lifestyle and occupation. He defines social class as “ a large-scale group of people who share common economic resources which strongly influences the type of lifestyle they are able to lead” (pp.206). Di Maggio (1994) shows that despite the multiplicity of determinants of lifestyles, social class differences still underlie differences in lifestyle.

Chaney (1996) suggests that ways of life based on socio-structural forms such as occupation, gender, locality and ethnicity do not disappear because new forms of
identification such as consumption choices become more significant. He suggests instead that the ways of behaving associated with the conventional expectations for these structural categories are however interwoven with new patterns of choice.

Writers such as Boudieu (1984) and Savage, Barlow, Dickens and Fielding (1992) suggest that lifestyle concerns are particularly associated with those who are relatively successful through their grasp of symbolic capital based on qualifications and who therefore cluster around distinctive occupations.

Despite the fact that social class has always been a difficult and problematic construct to measure, whether one uses single proxy measures such as occupation or composite measures, or subjective methods, some relationships persist. The first is that occupation as an economic signifier of social class persists and the second is that occupation is a determinant of lifestyle, which is a material manifestation of social class.

Thus for the purposes of this research study, occupation is used as a proxy for social class as manifested by lifestyle (consumption choices).

2.1.2.1 Social class, Lifestyles and Occupation in the Australasia

In the Australasian context, Lawson, Tidwell, Rainbird, Loudon and Della Bitta (1996) in quoting the Mackay Report on Social Class (1986) indicate that Australians believe that income is the most important dimension ascribing social
class. “Overall the three most discussed components in research on social class in Australia and New Zealand are occupation class, income and education” (pp. 136). Lawson et al (1996) also state that “occupation depends on educational credentials and occupational incomes largely determine the level of living for most people, most of the time” (pp. 137). The same authors also say that individuals cannot merely determine their own class by their behaviour, including consumption choices, if they do not have the other attributes such as the necessary educational and occupational characteristics. There is therefore a close relationship between occupation as a determinant of social class in Australasia, and the idea that lifestyle is a manifestation of social class. It is therefore seen as appropriate to operationalise a lifestyle which is indicative of a social class, by occupation. There are many other ways of operationalising the social class construct which may be more appropriate, however social class measurement has always been complex and problematic and using occupation as a proxy is not unusual.
2.1.3 Lifestyles, Social Roles and Product Groupings

The enactment of social roles which define which cultural category or lifestyle one belongs to is dependent to some extent on the material objects that make it concrete. Solomon has even used the term 'social role props' (1995) to describe role definitive groupings of products. Each social role has, associated with it a collection of products and activities which are taken by society (operating within a common cultural context) to define that role (McCall and Simmons 1982).

The concept of product groupings based on lifestyle is a notion that has its roots in the 'assortment concept'. Alderson (1957) uses the term 'assortment' to describe much the same concept of products that 'go together' based on functional complementarity. He takes the idea further in suggesting that such brand assortments could be predicted based on the characteristics of specific consumer segments. He defines an assortment as "a collection of two or more types of goods which either complement each other directly or in total possess some degree of potency for meeting future contingencies" (1957, p.199). The assortment concept, however is a Functionalist idea and does not take into account the symbolic configuration of products. Kehret-Ward (1987) also suggests the combining of products based on use, as a basis for making marketing and strategic decisions.

Green, Wind, and Jain (1972) considered a variation of this idea in a study on 'commodity bundles' using conjoint analyses to analyse subjects preferences for items on a menu (entree/dessert choices). They found that these choices were affected by the other items they were paired with. Their findings support the
idea that consumers expect certain patterns of products to ‘go together’; that satisfaction with a product is a function of how well it ‘fits’ with other products that the consumer may consume. Holbrook and Lehmann (1981), Holbrook and Moore (1981), Holbrook and Dixon (1985) have also reached similar conclusions about complementarity with regard to the consumption of fashion.

‘Backward Segmentation’ was first used by Wells (1968) and Alpert and Gatty (1969). The idea consists of using a group of correlated product preferences, and cross-category associations to work backwards to identify groups of consumers with a common set of needs, dispositions and experiences.

Solomon and Assael (1987) were the first to identify and formally define these groupings of specific products/brands around a lifestyle or social role. They defined ‘product constellations’ as “clusters of complementary products, specific brands, and/or consumption activities used by consumers to define, communicate and enact social roles” (1987, p.191). Their focus was on the holistic symbolic message conveyed by multi-category product assortments.

To further build up this idea of product groupings being related to lifestyles (which are related by necessity to determinants of social class, such as occupation) Chaney (1996) says that “it seems then that the social organisation of consumption, which we loosely refer to as lifestyles, will be intimately bound up with the persistence of social structure”(pp.56). He also refers to the use of such consumption choices signs that are decoded by others in that particular cultural context. He illustrates this idea in a cityscape thus “walking the streets
of any modern locality, one usually takes for granted the flickering surfaces of urban life. There is to begin with the kaleidoscopic swirl of the crowd. In the jumble of clothes, accoutrements and manners we absorb, but largely disattend, *a stream of social signals*” (pp.100). Later, “What I want to point to is how little each of us usually needs in order to classify and negotiate others. Of course these initial classifications are superficial and *generally based on stereotypes*”.

Barber (1957) in advocating the construing of lifestyle as an indicator of social position says” Symbolic activities and possessions are also a useful indicator of social class position for the social scientist. For him and for the applied researcher who wants to identify easily, if somewhat roughly, people’s social class positions, …. For example it is very easy to ascertain the relative size of a man’s house, the cost of his car, or the character of his residential neighborhood and to use any or all of these as rough indicators of his social class position” (pp.135-136).

Leiss, Kline and Jhally (1986) take this stereotypical framing a little further “The product appears as a sign or indicator for a collectivity that is defined by it’s appearance and activities,…..*Product – related images become emblems for social collectivities, principally by means of associations with lifestyles*’ (pp 278 and 295). Thus it seems rather clear that Therefore, the use of product unities or what Sobel (1981) calls ‘stylistic unities’ – groupings of products held together by a force or consistency usually ascribed to lifestyle is well recognised.
2.2 STEREOTYPES

Leyens, Yzerbyt and Schadron define stereotypes as “shared beliefs about person attributes, usually personality traits, but often also behaviours, of a group of people” (1994, p.11). Leyens et al, go on to summarise the three classical conceptual approaches to stereotyping as the Psychodynamic, Socio-cultural and Social-conflict orientations.

The psychodynamic orientation emphasises the role of motivational forces and psychological benefits that can lead to and perpetuate the use of stereotypes. It has its roots in Freudian thinking, and includes the use of defense mechanisms such as projection of tension onto others, ‘scape-goating’ and an emphasis on how early childhood experiences affect inter-group perceptions.

The socio-cultural approach focuses on the variety of means by which inter-group beliefs and attitudes are acquired and maintained through social learning and reinforcement. The focus here is on how stereotypes can be learned and perpetuated through the socialisation process, peer group influences and media portrayals.

The social conflict approach considers the effect of prejudice and stereotyping arising from inter-group conflicts the effects of inter-group contact and knowledge. The two distinct theories in this group are the ‘realistic conflict theory’ and the ‘contact hypothesis’ proposed by Sherif, Harvey, White, Hood and Sherif (1961). The realistic conflict theory is based on the assumption that groups of people will struggle eternally over scarce resources and that stereotypes help to maximise the heterogeneity of the
groups in conflict. The contact hypothesis is based on the assumption that personal contact and the setting of superordinate goals that require interdependence and cooperation between groups will increase knowledge of each other and help dispel stereotypes based on ignorance and help nurture truer perceptions of the other groups.

Apart from the three classical approaches to the study of stereotypes and stereotyping, there are two modern approaches that emerged in the 1970s and have dominated the field thus far. The first is seen as the European school centered around the ‘Social Identity Theory’ of Tajfel (1972a). The second has been the body of research clustering around the label of ‘social cognition’ and the works of Hamilton (1981); Ostrom (1984); Taylor and Fiske (1978); Hogg and Abrams (1988).

Tajfel using a series of empirical studies on social categorisation, showed findings that seemed to weight the differences between groups more strongly than the similarities. This led to his 1969 paper on ‘The Cognitive Aspects of Prejudice’. Research by Tajfel and others in this group was henceforth focussed on stereotypes. The main argument was that any discussion of stereotypes was not possible without exploring the functions of stereotypes. He suggested three such functions - social causality, social justification and social differentiation. All these functions pointed to the maximising of ingroup-outgroup differences in social contexts. Others in the same tradition have suggested that stereotypes function as norms. Hogg and Abrams (1988) suggested that “from the social identity perspective, the crucial feature of the stereotype is that they are shared. They are not merely idiosyncratic generalisations which coincidentally or by chance, made by a number of people.... This sharedness is due to a social process of social influence which causes conformity to group norms, called referent informational influence”
(p.75). According to Turner (1982, 1985), this process of referent informational influence includes three stages. People first categorise themselves as members of a social category, then they learn the stereotypical norms of that category and third they assign these norms to themselves. Stereotypes here are seen as having a normative function.

It is from this tradition that the self-categorisation and social categorisation studies have emerged focusing on the social stereotype as a group normative phenomenon rather than an over-generalisation.

2.2.1 Categorisation and Social Cognition Theory

The social cognition theory has nurtured a school of research that built upon the works of social psychology and others such as Hamilton (1981), Fiske and Taylor (1978), Ostrom (1984). The focus of this school were two perspectives 'impression formation and person memory' Leyens, Yzerbyt and Schadron (1994). Common to studies in this area are the notions of categories/schema and prototypes. A category can be defined as "an abstract structure of knowledge that groups things that hold together on the basis of coherence" (Leyens, Yzerbyt and Schadron 1994, p.76). Knowledge about a category is internally represented in terms of a prototype, which consists of "an abstract set of features commonly associated with members of a category, with each feature assigned a weight according to degree of association with the category" (Cantor 1981, p.27). In general, prototypical category members are easier to learn, classify, name and image (Cantor and Mischel 1979). These items are usually coded at three levels: superordinate level (e.g. vehicle), the basic level (e.g. car) and the subordinate
The basic level has been found to most optimally represent objects in terms of their richness and differentiation.

In both the works of McCracken (1988) and Solomon and Assael (1987) the underlying assumption is that every social role has a certain 'ensemble' of goods/brands that accompany it. This idea appears in both McCracken's description of the 'diderot unity' and Solomon and Assael's description of the 'consumption constellation'. This ensemble of goods can best be described as a kind of 'stereotype'. Solomon and Assael (1987) used Social Cognition theory to explain how these ensembles may come to exist and be used. They point to ideas of social categorisation and the work of Cantor and Mischel (1979) to explain this. Social roles, they argue, are processed as cognitive categories by consumers. These cognitive structures are used by consumers to classify people into groups. At this point a melding of role theory and social cognition are used by these authors to explain how this categorisation happens.

The social categorisation studies that have relevance to the consumption constellations and diderot unities, are object-perception studies. According to Cantor (1981), people form cognitive structures consisting of categories. Objects are classified as a function of their resemblance to one or more categories. A cognitive structure consists of social generalisations drawn from either personal experience or indirect exposure via media or other cultural institutions.

Cantor and Mischel suggested that individuals "code people and their behaviour in terms of a few simple cognitive categories (to simplify) what one needs to
know and look for in particular people” (1979, p.6). Solomon and Assael (1987) suggested that the essential features of people of particular categories form ‘stereotype’ representing an integrated image. Solomon and Assael (1987) argued that in any articulation of people’s stereotypes of specific categories, much of that stereotype is product-based rather than personality-based. They used an example by Fiske (1982) which described the Professor stereotype as “somebody who wears tweed, drives a small, cheap foreign car, is introverted, forgetful, and smart” (p.6), which has at least two product-based elements- the tweed and the car.

It does seem therefore, valid to suggest that social role stereotypes include in substantial part products or objects which act as potential meaning carriers. The social role stereotype is the primary stereotype with the stereotypical consumption constellation forming a part of that social role stereotype.

In order to make the ‘consumption constellation as a stereotype’ argument, threads from different theories need to be drawn together. Some assumptions therefore need to be stated here:

The first assumption is drawn from the social cognition theory. This assumption is that knowledge about persons and groups are stored as categories, with stereotypical consumption constellations, formed about these categories (Leyens et al 1994).
The second, a stereotypical consumption constellation associated with a particular social group/social role is formed in the tradition of the socio-cultural theory. This happens through various socio-cultural agents - media, peers and social learning.

The third assumption is that such a stereotype is culturally shared and is related to the normative function of stereotypes. People need stereotypical consumption constellations to be able to classify and measure the norms created by specific social groups for the purposes of belongingness/membership. This assumption is based on the social identity theory approach to stereotypes (Tajfel 1981; Hogg & Abrams 1988).

The fourth assumption, is also drawn from the social identity theory and relates to another function of stereotypes (Tajfel 1981). This is the social differentiation function of stereotypes that Tajfel suggested. Stereotypical consumption constellations are used to make cultural and social differentiation/distinctions between groups.

The fifth and final assumption is drawn from the social cognition theory. Following from the fourth assumption about stereotypical consumption constellations, it regards changes in the stereotype which happen when the individual has direct experiential knowledge of exemplars (instances of members of categories) that do not conform or match the stereotype. Since the stereotype is inconsistent with experience, the stereotype needs to be altered to accommodate these new experiences with the social group/social role.
2.2.2 Consumption Constellations

It is necessary to define consumption constellations formally for the purposes of this research. The term *consumption constellations* has been used throughout this research in the sense that Solomon and Assael (1987) use the term. They state that a consumption constellation is “a cluster of complementary products, specific brands and/or consumption activities used to construct, signify, and/or perform a social role” (Solomon and Assael, p.191).

Solomon and Assael in 1987 were the first to articulate the concept of the ‘product constellation’. Taking a gestalt approach to symbolic consumption, they introduced the idea of symbolic synergy created by products consumed in a group by consumers trying to use these products to define their social roles. These products are chosen because they form part of the collective cultural prototype of that particular social role. This article identified some of the central characteristics of the consumption constellation as follows:

1. Symbolic rather than functional meaning was the focus of the constellation.
2. The constellation was built around the prototype of a social role.
3. The prototype itself was grounded in a common cultural context and was consensual within such a context.

Solomon and Assael (1987) used a sample of college students, to generate consumption constellations using occupational labels as cues. The constellation
generation was carried out at the superordinate, basic and subordinate levels of categories for three occupational groups. They found consistent groups of product emerging with the basic level (both for the occupation and product) most evocative. The cue ‘doctor’ had a clearer complement attached to it than a specific type of doctor. Subordinate level associations were varying in their clarity.

McCracken (1988) approached the product group symbolism using a slightly different approach. His concept of the ‘diderot unity’ works on the basis of consistency between the products in a consumption set. He did however take the concept one step further in trying to explain how this consistency was maintained and occasionally broken to allow new and inconsistent products to enter in a process called the ‘diderot effect’. The initial diderot unity, during this process, is destroyed in favour of a newer and aspired to diderot unity. The consistency or harmony that holds the diderot unities together was lifestyle (or social role).

Solomon (1988) in an empirical study, used categorisation theory to ‘map’ consumption constellations. Using undergraduate students, he assigned one of 9 social roles, to each randomly. They were asked to generate a ownership/consumption list for 5 product categories (at any level - product or brand level). Using Gini indexes to calculate the averages across all the 5 product categories and 9 social roles Solomon was able to identify consistent patterns/prototypes associated with the social roles.
Solomon and Buchanan (1991) built on this idea by using a large commercial consumer database to look for patterns of consumption within it. The social role that they chose was 'yuppie'. They developed a joint consumption ratio that would indicate the degree of correspondence between the role and consumption of specific products. This study was an useful empirical validation that the consumption constellation did actually operate.

In later work Solomon and Englis (1994) suggest an integrated marketing communications approach as a practical application of the concept of consumption constellations. Their recommendations include collaborative advertising, product placement, multi-brand advertising and promotion.

2.2.3 A Dual Component Model of Consumption Constellations

The assumption that there exists a 'culturally common' stereotype has been made with regard to stereotypical consumption constellations. It assumed that within a common cultural context, all members carry the same or similar stereotypical consumption constellation, around which they build their category for a particular social role.

This assumption is suggested by both the classical theory of stereotypes- the socio-cultural approach (Leyens et al 1994) and the modern theory of social cognition (Ashmore and Del Boca 1981). The first theory approaches the common cultural stereotypical consumption constellation from the perspective of external influences and agents that help create the stereotype in the first place. The social cognition theory however, considers it from the point of view of how
this common stereotype is part of a cognitive structure called a category, and how these stereotypes can be altered.

To use the ‘common cultural stereotype’ to explain similar patterns of consumption constellations across members of the same social group/role, would be simplistic and problematic. Obvious differences do exist in the individual’s acquisition and use of stereotypical consumption constellations. If this were not so, all doctors would drive exactly the same brand/model of car, wear the same brand of shoe and so on. This being evidently not the case, these differences need to be explained.

Schenk and Holman (1980), in defining social role performance, suggest that an individual’s actual role performance cannot be studied by assessing only the requirements of his/her social position, since the individual “combines the broad culturally defined demands of his/her position with individually defined goals” (p.611). Hogg and Michell (1995) also argue that aspects of the social role could be seen as broadly culturally defined, mediated by individually-defined goals. The individual’s interpretation and playing out of a culturally defined social role, show differences which deviate from the stereotype. In the case of the stereotypical consumption constellation, it is suggested, that variations in the stereotype occur because of individual interpretations of the stereotype. A dual component model of consumption constellations is presented here, (Figure 2.2) incorporating both the common cultural component and the individually determined component.
The common cultural component of the consumption constellation is created by socio-cultural institutions - media, advertising, popular culture as well as peer referent groups, parents and others. The individual component, it is suggested, is formed in part by the individual’s direct experience. Familiarity with a particular social role and its members would present the individual with examples of consumption constellations that are inconsistent with the stereotypical one that is culturally held. Aspiration or belonging to a particular social role would also affect the stereotypical consumption constellation.

Figure 2.2: A Dual Model of Consumption Constellations

Components of Consumption Constellations

<table>
<thead>
<tr>
<th>NON-STEREOTYPICAL VARIABLE</th>
<th>STEREOTYPICAL BASE</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>(Individual Component)</em></td>
<td><em>(Socio-cultural)</em></td>
</tr>
<tr>
<td>- Learned from experiential sources.</td>
<td>- Learned from non-experiential sources.</td>
</tr>
<tr>
<td>- Differs because of each individual’s unique experiences.</td>
<td>- Similar across members of a common socio-cultural context.</td>
</tr>
<tr>
<td>- Stronger for long-time members (Role-familars and members-by-birth.)</td>
<td>- Stronger in new/transitional members (children and migrants).</td>
</tr>
</tbody>
</table>

Influences on Consumption Constellations

- Social Role Familiarity
- Social Role Knowledge
- Social Role Aspiration.
- Media
- Peer Referent Groups
- Family
- Other Socio-Cultural Institutions

There seems to be therefore, a component of the consumption constellation that is ‘common cultural’ knowledge. Variations in individuals’ interpretation and
use of these common cultural consumption constellations occur because of differences in their individual experiences.

There is some suggestion in the literature (Solomon 1983; Belk, Mayer and Driscoll 1984) that consumption stereotypes appear to decrease somewhat with increasing age. The explanation may lie with the interpretation of such stereotyping using the above model. If the common cultural base of a consumption constellation is the stereotypical component that all members of a culture hold and understand, then even newcomers to the culture and children in the early consumer socialisation process would have an understanding of such a stereotype. While the stereotypical component is understood by all members of the culture, the non-stereotypical component would begin to assert itself and eventually form substantial part of the consumption constellation as the individual grows older. As s/he begins to have more direct experiential understanding of a social role it would enable him/her to use a more varied consumption constellations. Confidence in the playing of a social role comes with familiarity with the role. Newcomers, migrants, and others who do not have this familiarity with the role will tend to be more conservative in their use of consumption constellations (Solomon 1988). Thus, familiarity with the social role could be a mediating factor in the individual’s interpretation and use of stereotypical consumption constellations that are associated with a particular social role. Belonging to a group or aspiring to belong to a group could also be mediating factors. Solomon (1988) found that M.B.A students had stronger expressed consumption constellations that were more stereotypical for the social role of ‘business-man’ than group members (businessmen) themselves.
2.3 CHILDREN AND CONSUMPTION SYMBOLISM

While consumer behaviour research in the last few decades has had a number of studies conducted in consumption symbolism, most of these have been conducted using adult samples (Belk 1980). However, Belk, Mayer and Bahn (1982) and Belk, Mayer and Driscoll (1984) used child samples to add to the evidence that children did have an understanding of consumption stereotyping. In the 1982 study, the researchers used pictures of adult products, such as houses and automobiles, which the children matched to statements about the owners to build a product-owner profile. In the 1984 study they again used a child sample, this time getting the children to make inferences about the owners of branded children’s products. In both instances the evidence that stereotypes did exist was significant. It was also clear that children tend to depend less on stereotypical inference as they grow older. Belk et al (1984) also found that it was difficult to evaluate children below the age of 7. They were unable to show consistent results with this group of children.

In all the studies of consumption sets and consumption constellations (Solomon and Assael 1988; Solomon 1988; Solomon and Englis 1991) child samples have never been used. If the argument made so far regarding the common cultural stereotypical consumption constellation were true, child consumers should be able to recognise the stereotype. Using the dual component model of consumption constellations that has been discussed in Section 2.2.3, it would seem reasonable to suggest this. While the non-stereotypical component of the consumption constellation would not be well developed in the younger child, the base stereotype would be recognisable to a child
who has been socialised in the same cultural context from which a consumption constellation has been derived.

2.3.1 Children and the Development of Socio-Economic Conceptions

In the discussion of the recognition of consumption symbolism by children it becomes important to consider how children acquire certain economic concepts which are integral to their understanding and interpretation of consumption symbolism.

Turiel (1983) has classified the social knowledge of the child into three distinct groups, the psychological domain (concepts of persons or psychological systems), the societal domain (concepts about social relations and organisations) and the moral domain (prescriptive judgements about justice, rights and welfare). It is in the societal domain that conceptions about economic and financial systems emerge.

Most studies of the development of economic ideas have examined children of different ages with the aim of describing a developmental sequence. Research methods have included questionnaires (Strauss 1952, 1954), attitude scales (Furnham 1982) and Piagetian-style interviews (Danziger 1958; Connel 1977; Jahoda 1979; Leahy 1981, 1983) or linked to concrete tasks such as seriation (the ordering of objects serially based on some dimension such as length), classification and paired comparisons (Siegal 1991).

The first of these type of studies was carried out by Strauss (1952, 1954). He considered the development of children’s understanding of money in the context
of various economic roles (such as a shopkeeper, customer, shop-assistant and factory owner) and the network of exchanges through which these roles are interrelated. Strauss explored these themes in wide-ranging questionnaires with American children ranging from 4 years – 11.5 years. Using scale analysis he grouped the responses into a sequence of nine stages. The nine stages and a preceding sub-stage that he identified are briefly described below with the corresponding ages in years and months mentioned in brackets.

Table 2.1: Development of Children’s Understanding of Money

(Strauss 1952, 1954)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age (years: months)</th>
<th>Distinguishing Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub-Stage</td>
<td>3 - 4:6</td>
<td>Can distinguish money from non-money objects, but cannot distinguish between different types of coins or denominations.</td>
</tr>
<tr>
<td>Stage 1</td>
<td>4:8 - 5:11</td>
<td>They can distinguish that money can be used for buying things, but not why or that specific denominations are required to make specific purchases.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>6:0 - 6:8</td>
<td>Can name and distinguish different denominations and know which one will purchase more sweets. Still no understanding of why one pays for a purchase. There is no understanding of the concept of change.</td>
</tr>
<tr>
<td>Stage 3</td>
<td>5:9 - 7:2</td>
<td>Children begin to understand the notion of change and that it is possible to buy goods if one has the required amount or more. The role of the shop-keeper is still not clearly understood.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>6:0 - 6:11</td>
<td>Improvement in the child’s understanding of the function of money. Children begin to understand that money is used to buy, and to sell as well as to obtain services.</td>
</tr>
<tr>
<td>Stage 5</td>
<td>6:9 - 8:9</td>
<td>Can clearly compare denominations and tell which one is more than and which one is less than others. Begin to understand the role of the shopkeeper, the idea that the shopkeeper uses the money earned through selling to pay others from whom he purchases goods.</td>
</tr>
<tr>
<td>Stage 6</td>
<td>7:5 - 8:5</td>
<td>More abstract concepts are being comprehended. The idea of credit is beginning to be understood.</td>
</tr>
<tr>
<td>Stage 7</td>
<td>6:8 - 10:6</td>
<td>The ideas of ownership is becoming more abstract. The shopkeeper is understood as owning goods and therefore having money.</td>
</tr>
<tr>
<td>Stage 8</td>
<td>8:4 - 11:0</td>
<td>Initial understanding of profit as a concept. An understanding that the shopkeeper charges more for a good than he bought it for.</td>
</tr>
</tbody>
</table>
the shopkeeper charges more for a good than he bought it for.

Children become aware that shopkeepers may sometimes cheat, recognising the possibility of conflicts between individual interests and the welfare of the community

Berti and Bombi (1981, 1988) have summarised and evaluated the work in this field while adding to it in several important ways. A longitudinal study (1981) carried out by these researchers followed up on 80 subjects between the ages of 3 and 8 years. Two tests were carried out. The first involved the children explaining to the researcher what they could buy with specific denominations of money. The second test involved a role play involving the children playing the roles of shopkeeper and customer in turn. The tests were repeated every 12 months over 5 retests. Based on the results, they refined Strauss’s (1952, 1954) stages of children’s understanding of money into 6 clear stages.

### Table 2.2: Development of Children’s Understanding of Money

(Berti and Bombi 1981)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Age</th>
<th>Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage 1</td>
<td>3 years old</td>
<td>No real awareness of monetary payment.</td>
</tr>
<tr>
<td>Stage 2</td>
<td>4 years old</td>
<td>The recognition of the need for obligatory payment</td>
</tr>
<tr>
<td>Stage 3</td>
<td>5 years old</td>
<td>The recognition that ‘not all kinds of money can buy everything’.</td>
</tr>
<tr>
<td>Stage 4</td>
<td>6 years old</td>
<td>The recognition that money is sometimes insufficient.</td>
</tr>
<tr>
<td>Stage 5</td>
<td>7 years old</td>
<td>The insistence on ‘strict correspondence between money and objects’</td>
</tr>
<tr>
<td>Stage 6</td>
<td>8 years old</td>
<td>Correct use of change.</td>
</tr>
</tbody>
</table>
While these stages serve as a guide of sorts to understanding how much children may understand about economic aspects of consumption symbolism, it uses a strictly Piagetian approach to the children’s understanding of these economic concepts.

An important link between the child’s economic knowledge acquisition and his/her understanding of consumption symbolism lies in their understanding of social stratification. One of the earliest works in this field was carried out by Jahoda (1959) on a sample of 179 children in the ages of 6-10, drawn from the middle and working classes. He related standard intelligence tests carried out on the sample to their scores on pictorial matching tasks. Pictures of people in various settings were presented and the children matched people and settings, including houses, possessions and interiors of houses. His examination of the way in which children build up a conceptual framework regarding social differences indicates that occupational divisions tend to be understood first in all children. These appear to be later linked to differences in wealth, income and in the case of middle-class children to some extent to lifestyle. While it seemed that a cognitive grasp of social differentiation is primarily dependent upon intellectual level, attitudes and feelings are largely determined by influences emanating from the child’s particular social environment.

Jahoda’s later work validated these findings with some variations in cross-national settings (1982, 1983). But this early research remains a definitive work with regard to understanding when and how well children understand social stratification.
Simmons and Rosenberg (1971) used a sample of 1917 children in grades 3 through 12, to explore children’s perception of social stratification. They found that even the third graders had a clear understanding of status consciousness and could rank occupations in an order that was entirely consistent with the ordering by adult samples. Both this study as well as the results of Jahoda’s work show very clearly that one of the earliest socio-economic concepts that children understand are those related to the status of occupations.

While Jahoda’s sample was Glaswegian and Simmons and Rosenberg used Baltimore schoolchildren, Connell’s (1977) is of direct interest to the specific Australasian context of this research. Connell, a neo-Marxist sociologist explored the socio-economic perceptions of Melburnian children aged 5-16. He found that while children aged 5-8 tended to dramatise the differences between the poor and rich, the adolescent children were able to better articulate the finer differences and give more realistic descriptions of the rich and poor. Using a Piagetian framework he has classified the children into three groups.

**Stage 1 (Ages 5-8 years): The stage of dramatic contrast**

Where the child has difficulty in understanding or articulating the finer differences in class. The very rich and the very poor are represented in their schema in sketchy detail, which results in a *description that dramatises differences between these classes*. There is very little understanding of the intermediate layers in the social structure such as the middle-class. There is no sense of an overall class structure.
Stage 2 (Ages 8-12 years): The stage of concrete realism

An overall sense of the class-scheme has begun to emerge. The middle-class as a concept exists, but not in a very clear sense. There are also connections made between the occupational scale and wealth.
Stage 3 (Ages 12-16 years): The stage of true class schemes

Their scheme of class structure is well developed and embraces the whole of society. Their concept of the middle class is well developed and includes nuances of subclasses.

The children gave different reasons as to why people were rich or poor. Connell related these to their own social origin. Children from a working class background tended to articulate reasons rooted in the labour movement. The majority of the other children asserted that there was no dramatic differences in the economic conditions of the Australian population, reflecting the tradition of thought that construes Australian population as ‘classless’. This seems to indicate some evidence for the ‘common cultural belief’ argument.

Leahy (1981) found similar differences in his study of 720 children in the ages of 5-18 in the cities of New York, Boston and Washington.D.C. The main difference between the person descriptions of rich and poor people by these children lay in the fact that the younger children tended to use peripheral categories (possessions, appearances, and behaviors) while the adolescents used more central (traits and thoughts) and socio-centric (life chances and class consciousness) categories.

To summarise these studies which look at children’s understanding of socio-economic stratification, three results stand out as consistent across the samples and methods.
1. Even the youngest of the children used in these samples (five years of age) have shown an understanding of *occupational status*.

2. Even the youngest of these children can use *peripheral cues* (such as those relating to *possessions and appearance*) to categorise people as rich and poor.

3. The *younger* the child the greater the tendency to *dramatise socio-economic differences*.

The second and third results seem to point in one direction - that of the tendency to use stereotypical descriptions by the younger child as opposed to the older child’s ability to provide finer detail in the descriptions of class and wealth, while still understanding and recognising the stereotypes. Occupational divisions seem to be understood early on, suggesting that occupational cues are commonly used by children in socio-economic categorisation tasks.

### 2.3.2 Methodological Issues in Research with Children

Studies that use children as subjects in consumer behaviour are relatively rare. A large part of the body of consumer behaviour research with children, consists of work done in the 70s and 80s in trying to understand whether and how children understood commercials on television. Much of this was done with a view to understand what legislation needed to be put in place to protect children against exploitative television advertising. There has been some use of child consumers in the context of brand and advertising awareness. Other than the studies by Belk et al (1982, 1984) there has been very little work carried out with children in symbolic consumption.
Consumer behaviour research studies using child samples are infrequent, at least partly because of methodological and design issues. Most have approached such research with a Piagetian framework and have therefore assumed that the difficulty that arises from working with very young children - especially pre-operational children (below the age of 7 years) - is because of their limited cognitive development.

While the Piagetian cognitive developmental stages have not really been challenged in their basic assumptions, there has been much work among sociologists, psychologists and anthropologists as well as educational researchers (Connell 1977, Siegler 1986, 1989) which has questioned the rigidity of the stages themselves.

2.3.3 Children and Categorisation Tasks

Categorisation studies by Rosch (1976) have shown that even 3 year olds can correctly categorise objects when the objects used were at the 'basic level' rather than at the super-ordinate or subordinate levels. For example 'furniture' would be the superordinate level, 'chair' would be the basic level and 'armchair' would form the sub-ordinate level. Basic level categories have been seen as the easiest to acquire, and most labelling in children happens of objects at the basic level rather than the super-ordinate or subordinate levels. Another feature of categorisation by young children appears to be in their preference for the use of the 'thematic' rather than the 'taxonomic' manner. They tend to categorise things by their 'relatedness' rather than their 'sameness' (Markman 1989).
Markman suggests that young children tend to group things using themes, for example ‘boot and foot’ rather than a taxonomic grouping of ‘boot and slipper’. Older children and adults tend to categorise by ‘sameness’ rather than thematically. Markman (1989) argues that in most experimental developmental studies the task uses material and has requirements that call for taxonomic rather than thematic categorisation and this causes what appears to be a ‘cognitive/developmental deficit’ in very young or ‘pre-operational’ children.

Drawing from the earlier work of researchers in classification studies (Smiley and Brown, 1979) as well as her own work (Markman 1989, Markman and Callanan 1983, Markman and Hutchinson 1984), she argued that when a pre-operational child faces a categorisation task, s/he will use the thematic interpretation as a preferred strategy. This usually conceals the child’s knowledge of taxonomic relationships. When questioned about these, these same children displayed an adequate knowledge of the taxonomic relationship. It was also seen that when verbal cues were added to these tasks, the pre-operational children resorted to the use of taxonomic categorisation.

It was seen by Rosch, Mervis, Gray, Johnson and Boyes-Braem (1976) that children tended to be able to complete such classification tasks best when presented with objects at the basic level rather than at the super-ordinate or subordinate level. They also found that successful completion of the task was highest when the children were offered cues that maximised the differences between groups of objects and minimised the differences within the groups of objects and that this appeared to happen best at the basic level. Markman (1989)
has shown that while thematic categorisation is the normal first-choice by most pre-schoolers, they are not incapable of using taxonomic categorisation.

Three main issues are raised by these categorisation studies and are of direct import to this research:

1. Pre-operational (the term as used in the Piagetian 1970 definition), are not incapable of categorisation tasks, and can perform these quite adequately especially at the ‘basic level’.

2. That pre-operational children tend to prefer the ‘thematic’ approach to categorisation over the ‘taxonomic’ one.

3. Pre-operational children can however perform taxonomic categorisations when verbal descriptions and cues are supplied. That while they tend to prefer thematic relationships between objects, they resort to taxonomic categorisation when faced with unknown tasks and verbal cues.

It would seem then that the structure of the task as well as the task requirements have a great deal to do with the ability of a pre-operational child’s ability to complete grouping and categorisation tasks.

In moving away from the strictly Piagetian approach to cognitive development, Siegler (1986, 1996) and Siegler and Jenkins (1989) have used two different approaches to explain the variability in the results that researchers have had in establishing in absolute terms the stages of the Piagetian classification. These approaches were summed up by Roedder-John (1997). While the Piagetian approach can be best described using the ‘staircase’ metaphor, where the child
steps up passing each step, but never retracing his/her steps on the cognitive staircase, this cannot fully explain some of the differences observed in children by researchers using this explanation.

Siegler (1996) and Siegler and Jenkins (1989) use two alternative metaphors. The earlier one that they proposed is that of the 'child's mind as a workshop'. Here the analogy is to a "workshop full of materials (knowledge) and tools (learning processes). These are used to make new products (rules, strategies, schemas, networks etc)" (p.1). Some of the tools and materials are familiar to the child and they understand when they are to be used. Orders arrive at the workshop and they need to choose the appropriate tool and material to produce the required product. Which tool and material are used may vary with the familiarity of the task and the availability of the tool. The consistency in usage of a particular tool for a particular job happens only after the child is familiar with the task or can relate it to some already known product.

In his later work Siegler (1996) suggests the 'wave' metaphor. Here he suggests that children ride waves of cognitive knowledge. The variability across children in their levels of cognitive ability, even within a particular cognitive stage, occurs because the waves crest at different time for different children. While one is cresting in terms of one cognitive strategy, the other child's cognitive wave may be ebbing. This may account for some strategy variations (for example, in mathematical ability). Children may use one strategy one day and another on the next depending on the cognitive wave they are riding at the moment. The central idea here is that the use of new strategies does not happen suddenly with a total
loss of old knowledge or strategy. He describes a slower change, with overlapping of waves, where there are periods when children still resort to old strategies even when understanding newer, more sophisticated strategies.

The Piagetian cognitive stages remain the predominant cognitive framework for most of child consumer behaviour studies, but the work of Siegler and others suggest a less rigid and more flexible drawing of the boundaries in their use of these stages. This is the approach that this research has adopted. This study has used the Piagetian stages as a basic cognitive guide but uses the more flexible and open boundary approach of Siegler (1986, 1996) in the design and implementation of this research.

2.3.4 Issues in Research Task Design

As some of the classification studies have shown, pre-operational children do have the ability to perform categorisation tasks competently. Their failure to perform successfully in a number of experimental situations is assumed to stem from cognitive immaturity. This point has been argued by many researchers. Siegler and Jenkins (1989) have used the ‘workshop’ metaphor to describe the development of cognitive strategy in the child. This idea that a child’s mind contains many tools of strategy, which are chosen depending on the familiarity of the task at hand, is consistent with what researchers such as Perrachio (1990) have suggested about task familiarity.

Shatz (1977) explains that “A skill is likely to appear sporadically depending on the degree of competence with it and other techniques called for in a given task.
A particular skill will be revealed most readily when other cognitive demands are minimised. Conversely, the performance of a skill will be most degraded when the task which requires it makes other heavy processing demands" (p.8). Perrachio (1990) cautions the researcher about the same pitfalls in designing research tasks for child samples. She recommends reducing or minimising the subtask demands and familiarising the main task so that the child is able to choose the right 'tools' or strategies from his/her cognitive strategy workshop. Distracting or peripheral task demands reduce familiarity and increase cognitive pressure, causing the child to resort to associative rather than cognitive (thematic rather than taxonomic) strategies which is then interpreted by the researchers as cognitive immaturity.

Perrachio (1990) has built up a set of seven rules in designing research tasks for child samples.

1. Ensure that the knowledge domain within which the task is set is one that is familiar to young children, since children perform better in a topic area in which they have well developed knowledge. Frame the research within such a context.

2. Provide the child with rich contextual support information to support encoding and retrieval by employing familiar objects and pictures in the task. The child’s performance will improve when provided with external, physical support for processing information through the use of relevant and attractive context.
3. Include only elements essential to the task. Eliminate any peripheral or distracting information. Streamline the experimental context.

4. Minimise the complexity of the information presented to the child. Start with the basic task format and then proceed to add elements on as the child’s capacity to perform is revealed.

5. Use language that conforms to the child’s conversational standards. Children will interpret questions literally. A child asked if ‘she would like her family to be larger’ answered ‘no, they are all tall enough’.

6. Use language that highlights the important features of the task. Language used as well as physical context can be used to direct the child’s attention to the main task.

7. Use goals that will be understandable and meaningful to the child. Task goals should be couched in everyday tasks with clear goals that will allow the child to design a strategy to achieve them.

Given the three characteristics that have been highlighted from the discussion of children’s understanding of socio-economic differences, it seems reasonable to suggest that within a given cultural context, even young children as emergent consumers, have a basic understanding of socio-cultural significance of products. Stereotypical groupings of products such as consumption constellations would be understood at least at the base common cultural level by children being socialised within that cultural context.

It is the social cognition approach to the consumption constellations construct that Solomon and Assael (1987) have adopted and the present research has used.
The focus is the social role as represented by occupation. The attributes of this role in terms of product/services and specific brands associated with it are used to create prototypical consumption constellations.

2.3.5 Summary

This research has therefore drawn on the literature and built a research design that is based on the following arguments:

- That stereotypical consumption constellations are based within a cultural context.
- That such consumption constellations are commonly understood at least at a basic stereotypical level, by all members socialised within that culture.
- That children going through the consumer socialisation process within that cultural context, will be able to recognise and use the stereotype to make inferences about consumers of such consumption constellations.

The research design has drawn upon the main ideas of cognitive and task abilities of children using the Piagetian cognitive stages and age to determine this. Age is used as an explanatory variable for the differences in the way these consumption stereotypes are understood and used. The following chapter, will discuss the main research questions that are drawn from the review of the literature.
3.1 INTRODUCTION

Based on the literature review of the last chapter, this chapter will identify the research questions in this study. The objective of this research was to explore age related differences in the way children identify and understand stereotypical consumption constellations. The research questions addressed by this research are based on the assumptions of the Dual Component model presented in Figure 2.2. This chapter will state these assumptions underlying the research questions and the hypotheses arising from these questions. The main arguments made to support these hypotheses are also given.

The dual component model (see Figure 2.2) formed the basis for the arguments that lead to the research questions that were considered in this study. To reiterate these arguments:

1. That Stereotypical Consumption Constellations are defined within a single cultural context.
2. That such Consumption Constellations are commonly understood (at least at a basic, stereotypical level) by all members of that culture.
3. That children going through the consumer socialisation process within that cultural context, will be able to recognise and match the stereotypical consumption constellations to the appropriate owner (social role member).
The following table summarises the research questions in terms of the hypotheses that were used to address the specific question.

Table 3.1: Summary of Research Questions and Related Hypotheses

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Related Hypothesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Question 1</td>
<td>Hypothesis 1 and Hypothesis 1a</td>
</tr>
<tr>
<td>Research Question 2</td>
<td>Hypothesis 2, Hypothesis 3, Hypothesis 4 and Hypothesis 4a.</td>
</tr>
<tr>
<td>Research Question 3</td>
<td>Hypothesis 1, Hypothesis 2, Hypothesis 3, Hypothesis 4, Hypothesis 4a and Hypothesis 5.</td>
</tr>
<tr>
<td>Research Question 4</td>
<td>Hypothesis 5.</td>
</tr>
</tbody>
</table>

3.2 RESEARCH QUESTIONS

The research questions to be addressed are related to age and social-role familiarity. Specifically stated these are:

1. Can children below the age of seven (pre-operational stage), accurately identify stereotypical consumption constellations?

2. Do older children (those in the early concrete operational and late concrete operational developmental age-groups) more accurately identify the stereotypical consumption constellations and describe more alternative non-stereotypical consumption constellations than children in the pre-operational group?

3. Can the Piagetian (Piaget 1970) developmental stages be used as a basis for explaining the differences in the identification and understanding of such
stereotypical consumption constellations between these three age groups of children?

4. Will social-role familiarity increase children’s understanding of non-stereotypical/alternative consumption constellations regardless of age?

Note: While the research question 3 may seem to merely summarise the results of all the hypotheses, it is used to help present a fuller picture of the differences between the age-groups and see how closely the differences conform to the Piagetian framework. While the Hypotheses themselves could have been combined in a more efficient manner to consider differences on the 2 dependent variables, it was imperative to pose them as separate hypotheses so as to build detail and boundaries.

3.2.1 Hypothesis 1

While it would seem that pre-operational children (below the age of seven) are not cognitively mature enough to understand abstract concepts such as social stereotypes; some research studies indicate that such children do have knowledge of such labels and categories which resemble adult categorisation knowledge (Hirschfield 1995). For example, Hirschfield found children as young as three understood that occupational categories were important in identifying and categorising a person’s identity. They may not be able to apply the labels accurately all the time to members of that group, but they would have a culturally learned understanding of stereotypes (including those relating to social role). While they may not be able to identify or describe alternative or non-stereotypical consumption constellations associated with that role because of a lack of direct contact with members of that group, they will have knowledge learned from indirect sources.
H1 - For all three social roles, pre-operational children (below seven years of age), will identify accurately the stereotypical consumption constellation associated with a particular occupational role.
3.2.2 Hypothesis 1a

The identifying of Stereotypical Consumption Constellations associated with a particular occupational role is seen as a categorisation task which is within the cognitive capabilities of children as young as five (Gellman, Collman and Maccoby 1986). However, the ability to describe alternate/non-stereotypical consumption constellations is seen as understanding of non-typical category membership - or what Cantor and Mischel (1979) describe as ‘fuzzy person categories’. The understanding of such categories comes from increased socialisation as in the case of older children. Therefore it is hypothesised that pre-operational children will not be able to describe such non-stereotypical consumption constellations.

H1a - For all three social roles, pre-operational children (below seven years of age) will provide no alternative, non-stereotypical consumption constellations.

3.2.3 Hypothesis 2

With increasing age, the older child, having undergone more of the socialisation process, will have a better understanding of social/occupational roles and the stereotypical consumption constellations associated with them. This would make it easier for them to accurately identify these stereotypical consumption constellations.
Since early concrete operational children have gone through a longer process of socialisation, their ability to identify stereotypical consumption constellations will be greater than that of the pre-operational children.

**H2 - For all three social roles, the early concrete operational (eight and nine years of age) group of children will identify, more often than the pre-operational (below seven years of age) group, the accurate stereotypical consumption constellation.**

### 3.2.4 Hypothesis 3

This oldest group of children are expected to show the greatest ability to recognise stereotypical consumption constellations. This hypothesis is based on the same arguments as those put forward for H2. Older children will have undergone a longer process of socialisation than the early-concrete operational group of children.

**H3 - For all three social roles, the late concrete operational (eleven and twelve years of age) group of children will identify, more often than the early concrete-operational (eight and nine years of age) and the pre-operational (below the age of seven) group, the accurate stereotypical consumption constellation.**

### 3.2.5 Hypothesis 4

Increasing age and socialisation, in the case of the late concrete operational children leads to greater learning from direct and experiential sources. The older
child will therefore have had more contact with members of the different occupational groups, who do not consume the stereotypical consumption constellation of goods. Thus, while being able to identify the stereotypical consumption constellation better, they are also able to provide more examples of non-stereotypical consumption constellations, because of greater direct experience with atypical examples of the occupational group members.

**H4 - For all three social roles, the early concrete operational (between the ages of eight-nine years) group of children will be able to provide alternative, non-stereotypical consumption constellations.**

**3.2.6 Hypothesis 4a**

As with the arguments put forward in H1a, the older late-concrete operational child would be expected to have greater experiential understanding of and familiarity with these ‘fuzzy categories’ of people who consume a non-stereotypical consumption constellation. Increased socialisation therefore, would lead to an increased ability to describe alternative non-stereotypical consumption constellations.

**H4a - For all three social roles, the late concrete operational (between the ages of eleven and twelve) group of children will be able to provide more alternative non-stereotypical consumption constellations than the early concrete operational (between the ages of eight and nine) group of children.**
3.2.7 Hypothesis 5

In cases where the child is constantly in the company of the members of a particular social role (e.g. parents are members of that social group, or they know in that particular group), social role familiarity is enhanced and a more detailed knowledge of that group results (Solomon 1988). This could occur even in the very young child. While such general familiarity with social roles increases with consumer socialisation (which generally increases with age as Belk et al 1984 suggest) particular familiarity with a social group could play a moderating role in the young child’s ability to describe alternative/non-stereotypical consumption constellations.

H5 - For all three social roles, children of all three age groups (the pre-operational, the early concrete and the late concrete operational) with high social role familiarity, will provide greater alternative/non-stereotypical consumption constellations than those with low social role familiarity.

These are the main hypotheses considered in this research. Age/cognitive developmental stage and Social/occupational Role familiarity are offered as the two factors that create differences in the way different age groups of children identify and use these stereotypical consumption constellations.

Thus the age of the subject has been defined as the age of the subject in years and months at the time of data collection, and the cognitive stage of the child as determined by specific cognitive tests (see Section 4.4.1). Only subjects whose
age in years and months corresponded to the Piagetian cognitive developmental stages were included in the sample.

Social/Occupational Role familiarity was operationalised as the score on the Social Role familiarity scale (see Section 4.4.2). This scale is based on Solomon's (1988) Social Role Knowledge/familiarity scale. This score is referred to as the SRKS in later chapters.

Thus age and the Social Role Familiarity Score (SRKS) are the two independent variables used in this study.

The accuracy in matching the Stereotypical Consumption Constellation with the appropriate Social/Occupational role prompt was used as the dependent variable in this study. This score is referred to as SCCS in later chapters. The number of non-stereotypical/alternative consumption constellations described by the children in the three age groups is also calculated.

This chapter has stated the research questions and hypotheses that have been examined by this study. It has also defined and explained concepts and terms that are used through this study. The next chapter will describe the methodology and the procedural sequence of data collection.
CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 INTRODUCTION

The research objective, as previously stated, was to determine if variations existed across age groups in relation to the recognition of consumption constellations by children. The sample in this research consisted of children, which was a major factor in determining the design and methodology of the study. This chapter details the two major phases involved in the data collection. The first phase covered the preparatory procedures necessary to the second phase, which involved the actual data collection.

4.1.1 Variables and Operationalisation

This study used two independent variables and two dependent variables. Age was the first independent variable. Social Role Familiarity Score (SRKS) was the second independent variable. Stereotypical Consumption Constellation Score (SCCS) and Alternative/non-stereotypical Consumption Constellation Score (ASCCS) were the two dependent variables. Definition and explanation of the operationalisation of these variables follows.

For the purposes of this research, age has been defined as the age of the subject in years and months at the time of data collection. The cognitive developmental stages of two of the three groups of the subjects have also been determined (see Section 3.4.1) and used to categorise the subjects further into pre-operational and early concrete operational. The third group of subjects (aged 11-12 years) were deemed to be in the concrete operational developmental stage following
the testing. These groupings are based on the Piagetian (Piaget 1970) cognitive developmental stages. The pre-operational child, aged between 3-7 years, has begun to use symbols, can pay attention to only one thing at a time, and is mainly driven to action by external stimuli. The concrete operational child, aged between 8-12 years, has developed abstract thought. The distinction between the early (8-9 years) and late (10-12 years) concrete operational stages is usually seen by the ability of the child to use multiple dimensions in thinking.

This study has used three age groups, 5-6 years (pre-operational group), 8-9 years (early concrete operational), and 11-12 years (late concrete operational). Age has therefore been used as a proxy for the cognitive developmental stage of the subject. These correspond roughly to the Piagetian developmental groupings described above, in terms of age but did not included children in the 7 and 10 age groups who lie on the boundaries of these developmental groupings. This was done to exclude those children in transition between developmental stages. Children move between the pre-operational, early concrete operational and late concrete operational stages at slightly different ages (for instance one child may be capable of early concrete operational tasks only at 7.5 years while others may be capable performing the same tasks while 6.11 years). Children of these ages therefore were not included, that the sample lay in as clearly defined stages as possible. Where the cognitive developmental tests yielded scores not consistent with the age of the child, the responses were not included in the sample.

For the purposes of this research, Social Role Familiarity Scores (SRKS) as defined by Solomon (1988), has been operationalised as the score that the
subjects gained on the *Social Role Familiarity Scale*. This scale is based on Solomon's (1988) three-item scale. The first two items in the three-item scale consisted of questions relating to how much knowledge of a particular role the respondent had. The third item in the three-item scale was an open-ended question about the number of members belonging to a social role the respondent knew. This original three-item scale was extended to include an additional three items and was adapted for and tested on a child sample. The six-item scale consisted of a number of questions related to the subject’s familiarity with the three occupational groups (dentist, school-teacher, and garbage collector) and frequency of contact with their members (see Section 4.4.2 for scale). Thus Social role familiarity was operationalised as familiarity with the social role and frequency of contact with its members. Social role familiarity was calculated for each of the three social/occupational roles.

This six-item scale yielded a score between 0-15. It indicated how much or how little the subject knew about that particular occupation and the people belonging to it. Social role has been operationalised using *occupation* (of the adults depicted in the visual prompt, see Appendix 2) as a proxy. *Occupation* has been shown to be a major source of information regarding a person's lifestyle and a good predictor of specific consumption patterns as well as class, status and power (Hirschfield 1995; Runciman 1968).

*Stereotypical Consumption Constellation Score (SCCS)*, which was one of the dependent variables in this study, has been defined as the extent of stereotypical choices the subject makes when grouping occupational groups and “branded”
products/services. This has been operationalised using the scores from a grouping task (see Section 4.4.3). The subject chose four ‘brands’ (see Table 4.2) to match each of three occupational cues and scored between 0-4 on each occupational group. The highest score of 4 on any one grouping coincided with the ‘stereotypical groupings’ generated by the adult sample in the preparatory phase to data collection, refer Section 4.3.1.

The *Alternative/non-stereotypical Consumption Constellations Score (ASCCS)* which formed the second dependent variable in the study was calculated as follows: subjects were asked to describe an alternate consumption constellation set for each of the three occupations. Each set of four product brands that the subject could describe, that did not belong to the set originally chosen by the subject (including a product brand that stereotypically “belonged” to another occupation) counted toward one point on their ASCCS score. For example, if a subject had originally chosen the Toyota Corolla, the brick house, the holiday in Bali, and Kim’s restaurant as the consumption set that ‘belonged’ to the teacher, an Alternative/non-stereotypical consumption constellation could be a Mitsubishi Magna, a holiday in Europe, the fibro cottage and the Bon Appetit. This alternative description would count to one point on their ASCCS.

### 4.2 RESEARCH SEQUENCE

A series of preparatory procedures was carried out before the actual data collection was conducted. Thus, the research is presented in these two phases.
Phase 1: Prerequisite Procedures

1. Product/Brand Selection (Section 4.3.1).
2. Materials and Stimuli Selection (Section 4.3.2).
3. Sample Selection (Section 4.3.3).

Phase 2: Data Collection Procedures

1. Determination of Cognitive Developmental Stage (Section 4.4.1).
2. Administration of the Social-Role Familiarity Scale (Section 4.4.2).
3. Administration of the Grouping Task (Section 4.4.3).
4. Follow-Up Questions (Section 4.4.4)

Each step will now be discussed to establish the procedural sequence and rationale of the research.

4.3 PHASE 1: PREREQUISITE PROCEDURES

This phase consisted of three stages. These stages included the product/service ‘brand’ selection, the materials and stimuli selection, and the sample selection. Each stage is discussed below in the sequence they occurred.

4.3.1 Stage 1: Product/Service ‘Brand’ Selection

The choice of this stage was supported by the Solomon and Englis (1995) method of building social role based consumption constellations. A sample of nineteen respondents was used to generate the consumption constellations. The ages of the respondents used were between 27 and 61 years. They all described
themselves as Anglo-Celtic Australians, which is the dominant cultural group in Australia today (1991 Census of Population and Housing, ABS). Thus, it seemed essential to use a sample of this group to build the stereotypical consumption constellations which the study assumed were similar across a common cultural context. In the Anglo-Celtic Australian sample there were 9 males and 10 females, spread fairly evenly across the lower, middle, and upper income classes. Demographic details of the sample are presented in Table 4.1 below.

Table 4.1: Sample Characteristics - Adults

<table>
<thead>
<tr>
<th>Class</th>
<th>Male</th>
<th>Female</th>
<th>Occupation</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper</td>
<td>4</td>
<td>3</td>
<td>Doctors (4), lawyer (1), professor (1), business person (1).</td>
<td>7</td>
</tr>
<tr>
<td>Middle</td>
<td>3</td>
<td>4</td>
<td>Tellers (3), counsellors (2) and clerical workers (2)</td>
<td>7</td>
</tr>
<tr>
<td>Lower</td>
<td>2</td>
<td>3</td>
<td>University students (5)</td>
<td>5</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>10</strong></td>
<td></td>
<td><strong>19</strong></td>
</tr>
</tbody>
</table>

The group was first asked to try to form a mental picture of a typical member of each of the three income classes and describe what each of them does for a living. These classes were described occupationally as the Professionals, the Intermediates, and the Working Cluster based on the Australian Standard Classification of Occupations (Baxter, Emminson and Western 1991). Each respondent was to identify only one occupation in each income class. Every person was further instructed to pick an occupation that in their opinion, 'typifies' that income class. The averages were calculated across the responses for each of the three classes. The most frequently mentioned occupation was
chosen as that which best typified that class. The three occupations thus identified were a dentist, a school teacher, and a garbage collector for the upper, middle and lower income class respectively. Then each person was asked to describe in the greatest detail possible what kind of house each of these people lived in, what kind of car they owned, which local restaurant they frequented, and where they would travel on a holiday.

The four product/service 'brand' categories selected (house, car, restaurant and holiday) were based on past research studies of product symbolism. Some of these studies have identified product categories with high communicative properties - high visibility, high variability in use, and high personalisability (Holman 1981; Munson and Spivey 1981; Belk 1982). It should be noted that occupation has been used as a proxy for social role in its operationalisation (Runciman 1968; Cantor and Mischel 1979; Solomon 1988).

As with the occupations averages were calculated to determine to which product brand was most associated with which occupation. The frequencies with which each ‘brand’ was mentioned by the entire sample for each occupational group and product/service category were calculated. Each response was summed across product/service category and occupational group. This was done until one product/service ‘brand’ was identified as being most consistently mentioned for each product/service category and occupational group. For example, the new Toyota Corolla was chosen by 47% of the respondents when asked what car the teacher was most likely to own/drive. The result was a consumption set for each of the three occupational groups consisting of four product/service brands. Thus
a set of 3 (occupations) multiplied by 4 (product/service categories) resulting in
12 product/service ‘brands’. There were therefore three Stereotypical Consumption Constellations in all. Each Consumption Stereotype comprised one occupational group and 4 product/service ‘brands’ (see Table 4.2). The consensus level may appear low for some of the brands (e.g. 21% for Australia as a Holiday destination for the Garbage Collector), but the generation task was carried out individually by the members of the adult sample and the choice set was practically limitless, as they could have picked any holiday destination, making the probability of picking the same destination as another sample member very low. Therefore, even the 4/19 respondents agreeing independently on a brand was seen as sufficient. However, averages below the 20% consensus rate was not considered.

Table 4.2: Stereotypical Consumption Constellations

Average Proportions for Occupations and Product/Service ‘Brands’

<table>
<thead>
<tr>
<th>Occupation/Role</th>
<th>Average* for Role</th>
<th>Average* for Houses</th>
<th>Average* for Cars</th>
<th>Average* for Restaurant</th>
<th>Average* for Holiday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td>63%</td>
<td>53%</td>
<td>58%</td>
<td>42%</td>
<td>47%</td>
</tr>
<tr>
<td>School Teacher</td>
<td>42%</td>
<td>32%</td>
<td>47%</td>
<td>42%</td>
<td>53%</td>
</tr>
<tr>
<td>Garbage Collector</td>
<td>37%</td>
<td>32%</td>
<td>32%</td>
<td>53%</td>
<td>21%</td>
</tr>
</tbody>
</table>

* Averages were calculated over the 19 respondents. This was done by summing up most frequently mentioned responses for each income class to arrive at the
stereotypical occupation for each of the 3 classes. Responses were then summed separately by each product category for each of the three occupations identified in the first step.

4.3.2 Stage 2: Materials And Stimuli Selection

The material was developed using techniques used in studies of how children develop perception of social and economic differences by Jahoda (1959, 1981, 1983, 1984a). The actual stimuli consisted of three sets of pictures. Each of the three sets consisted of five pictures corresponding to one occupational group. Each set consisted of one picture of a person belonging to the occupational group and four product/service 'brands' that went with that occupation (refer Appendix 2). The pictures were chosen with the sample firmly in mind. As the occupational stimuli, classroom picture sets were used from the Curriculum Resource Center that is attached to the Education Department of the University of Wollongong, Australia. Pictures of people in typical occupational settings were chosen. These sets were tested with the same group of respondents who helped generate the stereotypical consumption constellations to check if they were consistent with their mental 'pictures' of those persons. As a result, some pictures were changed. For example, the garbage collector with his collection truck was removed to avoid confusion with the product category of cars that was to be used in the task. In an attempt to make the pictures consistent, each picture was standardised in size (A4) and digitally photocopied to be presented clearly in black and white.
The 12 product brands (Table 4.2) to be used for each of the occupational groups were chosen from speciality magazines, for example, Car magazine, House and Garden, Beautiful Homes, Better Homes and Gardens, Australian Gourmet Traveller and Travel Away. For the pictures of houses, a number of real estate store display pictures were considered and tested with the original group of respondents. These did not seem to concur with their ‘picture’ of the stereotypical houses. There was much discussion as to whether or not the locality of the house should be considered as part of the ‘brand’. This seemed to be logical but was finally discarded as comprising multiple cues, thus creating a recognition task too complex for the youngest group of pre-operational subjects, aged 5-6 years. The final set of pictures of houses was drawn from ‘architectural categories’ classroom picture sets found in the library at the University of Wollongong, Australia. The final set of three houses were chosen by consensus by the sample of 19 used in generating the product brands.

The restaurant pictures were a combination of photographs and magazine/promotional pictures of the specific restaurants chosen by the respondents. The holiday pictures were composites or collages. It was clear from the respondents’ descriptions that they did not have a particular city or place in mind when they said ‘a European holiday’ or ‘an Australian holiday’ or ‘a Bali holiday’. Different combinations were tried from travel magazines and travel brochures until three combination pictures were chosen by the respondents that appeared to best concur with their ‘picture’ of the stereotypical holiday for each occupational group.
The pictures were all standardised in terms of size and colour and clarity. Initially, colour pictures were considered to heighten the stereotypical effect. However, in testing colour pictures on a pilot group of preschoolers, it was found to be a distracting cue. Some children tended to group the blue car with the dentist because 'she is wearing a blue shirt' or 'the garbage collector would like the black car so dirt won't show'. As Macklin (1996) has shown, cues such as colour can help in association and matching tasks by children; if they have prior associations for the cue that are consistent with the present task context. In this instance, colour while heightening the stereotypical aspect of the picture was still seen to be a distracting cue when pre-tested.

The final set of pictures consisted of one picture for each occupational group: dentist, schoolteacher, and garbage collector and four x three product/service 'brands'. Each 'stereotypical' group consisted of one person (belonging to an occupational group) matched with one car, house, restaurant and holiday (i.e. Stereotypical Consumption Constellation) to form a consumption stereotype. The pictures were pre-tested on 3-4.5 year old children in a local pre-school. All the 23 pre-schoolers could identify accurately the objects represented in the pictures (i.e. that the picture of the stone homestead was a picture of a house and so on).

4.3.3 Stage 3: Sample Selection

A stratified sample was used to ensure equal representation among children from all three age groups (5-6 years, 8-9 years, and 11-12 years) as well as to ensure an equal spread across the lower, middle, and upper income groups. Permission
was sought from the Catholic Board of Education in the Southern Illawarra region (Southern Coast, New South Wales, Australia) as well as the Department of Education (New South Wales, Australia). Two private schools in the same region were also approached. The final list of schools consisted of one private school, two Catholic schools, one large public school and one Christian non-denominational school. The private school tended to attract children from the upper-middle income families.

The Catholic schools and the Christian non-denominational school had a fair representation of students from the middle-income families. Finally, the public school drew its students from the middle and lower-middle class families. These classifications were drawn from the descriptions by the principals of the schools. It may be argued that there is a sample bias toward the middle-income group. This argument could be countered by the fact that this sample simply reflects the dominant middle class in the Australian population (Baxter, Emmison, Western and Western 1991).

The participating schools had their Kindergarten, Year Three and Year Six students take home information and consent forms. This material described in general terms the study and a request for volunteers. The resultant self-selection bias was unavoidable since all research with children has to be entirely voluntary. This is in keeping with the guidelines of the Human Research Ethics Committee of the University of Wollongong, Australia. The two older groups of children (Year Three and Year Six) were required to read the information sheet and consent in writing personally to participate in the study. All these
requirements were completed as part of the University Human Research Ethics Committee requirements as well as that of the Department of Education (New South Wales, Southern Coast).

The final sample consisted of 175 completed, useable interviews. The sample was spread fairly evenly across gender, 97 girls and 78 boys. The sample consisted of 61 children in the 11-12 year age group, 48 children in the 8-9 year age group and 66 children in the 5-6 year age group (refer Table 4.2). The participation was entirely voluntary.

<table>
<thead>
<tr>
<th>Table 4.3: Sample Characteristics - Children</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Sex</strong></td>
</tr>
<tr>
<td>Female</td>
</tr>
<tr>
<td>Frequency</td>
</tr>
<tr>
<td>Percentage of Total Sample</td>
</tr>
</tbody>
</table>

This study assumed that *Stereotypical Consumption Constellations* related to social role are understood and recognised within a common cultural context (Schenk and Holman 1980). Therefore, the common cultural background of all the children in the sample had to be ensured. Questions directly related to the ethnic background of the subject could not be included, as it would contravene the Human Research Ethics Committee guidelines. A question was asked before the commencement of the sorting task, to ascertain how long the child had lived...
in Australia. This question was in addition to a similar question answered by the parent in the take-home sheet. If the child had not lived in Australia for 10 years or from birth (in the case of younger children), the interview was not used. Thus, the length of time spent in the country was used as a measure of the common cultural background of the child.
4.4 PHASE 2: DATA COLLECTION PROCEDURES

There were four stages to this phase, namely (1) determination of cognitive developmental stage, (2) administration of the social role familiarity scale, (3) administration of the grouping task, and (4) a follow-up question session. Each stage is discussed in the order in which it occurred.

All four stages in the data collection phase were carried out during school hours and on school premises. Perrachio (1990) has suggested that successful research with children is carried out in an environment that is familiar and ‘normal’ to the child. Each child who had agreed to participate was sent in turn from the classroom to a room in the school used for individual interviews. In the case of one school, the library was used. In all cases, the room and situation were familiar and the environment was non-threatening. All four stages of data collection were carried out for one child before another child was ushered in. Each child was instructed not to speak to the other subjects about the interview. One group in one classroom was completed before another group was begun. All interviews were conducted by the researcher.

4.4.1 Stage 1: Determination of the Cognitive Developmental Stage

As previously stated, the three age groups used in this study were 5-6 year olds (corresponding to the Piagetian 3-7 year old/pre-operational stage), the 8-9 year olds (corresponding to the Piagetian 8-9 year old/early concrete operational stage) and the 11-12 year olds (corresponding to the Piagetian 10-12/late concrete operational stage) (Piaget and Inhelder 1974). Two tests were use to
ensure that the 5-6 year olds and the 8-9 year olds actually belonged in the *pre-operational* and the *early concrete operational* cognitive developmental stages. Flavell (1977) explains that children’s transition from perceptual categorisation and inference to cognitive categorisation and inference takes place between the ages of 5 and 9. Children vary tremendously in their cognitive abilities during this period, with the shift happening in some cases earlier than in other cases (Kagan, Moss and Siegal 1962; Wohlwill 1962; Piaget 1970). It was, therefore, important to categorise the children accurately as *pre-operational* and *early concrete operational* in the 5-9 year groups. Since the important distinction lay in identifying the pre-operational and the early concrete-operational, the 11-12 year olds were not tested.

The tests used are part of the standard battery tests that measure the cognitive development stage. Children can generally be classified as *pre-operational* or *concrete operational* on the basis of these scores. The first test used was the seriation of length task. Here the child was asked to arrange in ascending order ten sticks of varying length (Inhelder and Piaget 1974). The second test was a conservation test. Here the child is asked if two sticks of the same length were the same length. Upon agreement, the interviewer placed the sticks so one stick could be perceived as slightly longer than the other when placed on a flat surface (in the form of a ‘t’). The child was then asked if the sticks were the same length. The pre-operational child would usually perceive one as being shorter than the other. On the other hand, the early concrete-operational child would invariably be able to perceive that the length of the sticks remained the same.
Subjects in the 5-9 year old groups were scored on their ability to arrange the sticks in correct order of height and length of the sticks. These scores were used to categorise the children into pre-operational (those who scored 0 or 1 out of 2) and early concrete operational (2 out of 2). The seriation task was complex and could be done in several ways with some methods showing more sophistication than other methods. Two of the 8-9 year olds were unable to complete the seriation task and their responses were excluded. None of the 5 and 6 year olds were able to successfully complete both tasks. Age, therefore, seemed to be an adequate proxy for cognitive developmental stages when the outliers were excluded.

4.4.2 Stage 2: Administration of the Social Role Familiarity Scale

This scale was based on the Social Role Familiarity Scale (SRKS) used by Solomon (1988). The original scale used three items. Two items related to role knowledge and one item used an open-ended question relating to the number of members belonging to a social role that were known to the subject. The researcher added three more items, focusing on the familiarity with and knowledge of particular social roles and its members. All the items were adapted for the child sample. The final scale consisted of six items. The measure was pre-tested on a group of 4 year olds in a pre-school located in the same region as the main study. This pre-test was undertaken to ensure that the questions were understood and to determine how best they could be posed to the child subjects. As a result of this pre-test, some words were changed and some of the questions were qualified. For example, ‘knowing’ as different from ‘recognising’ a person...
was used with the final sample. The scale itself is presented in Appendix 4 (pg 201).

The scale was rated on a 1, 2, or 3 score for each question. The first question was not scored as it was used merely as an elimination question. The table below provides a summary of the scores assigned to each question in relation to the response.

Table 4.4: Scoring for the Social Role Familiarity Scale

<table>
<thead>
<tr>
<th>Question/Score</th>
<th>3</th>
<th>2</th>
<th>1</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question 2</td>
<td>Many</td>
<td></td>
<td>One</td>
<td>None</td>
</tr>
<tr>
<td>Question 3</td>
<td>Relatives</td>
<td>Family friends/ Neighbours</td>
<td>Others</td>
<td>NA</td>
</tr>
<tr>
<td>Question 4</td>
<td>Often</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>NA</td>
</tr>
<tr>
<td>Question 5</td>
<td>Both Homes</td>
<td>Either Home only</td>
<td>Elsewhere</td>
<td>NA</td>
</tr>
<tr>
<td>Question 6</td>
<td>Often</td>
<td>Sometimes</td>
<td>Rarely</td>
<td>NA</td>
</tr>
</tbody>
</table>

The subject was assigned a total score for Social Role Familiarity (SRKS) in relation to three occupational categories. Each subject, therefore, had 3 scores with a possible top score of 15 in each case and a minimum score of 0. The score for Social Role Familiarity (SRKS) was used as one of the independent variables in this study.

This test was administered after the subject had completed the cognitive development stage determination test, which classified the subject as into pre-operational or concrete operational. To ensure consistency, one researcher administered the test to each subject.
4.4.3 Stage 3: Administration of the Grouping Task

This stage in the data collection formed the core of the study. The Stereotypical Consumption Constellation Scores (SCCS) formed one of the dependent variables for analyses. The way in which the subjects chose to group the social role was considered indicative of how well they recognised, understood, and used these stereotypical groupings. Occupation has been used as a proxy for social role for reasons discussed earlier.

The test itself consisted of a pictorial grouping task. This material and techniques used were developed based on studies of how children develop perceptions of social and economic differences by Jahoda (1959, 1981, 1983, 1984a). The child was shown the three pictures with persons in typical occupational settings (i.e., dentist, teacher and garbage collector). To ensure that the pictures were being accurately recognised, each child was asked to describe what kind of work each of these people did. When the researcher judged that the child could adequately do this task, the child was then shown a set of three ‘brands’ in the same product/service category and asked to match one ‘brand’ to each occupation. Once the houses as the first set of three “brands” had been matched, the next set of three ‘brands’ was presented. The child was asked to repeat the matching procedure with the remaining two product/service categories. This procedure was repeated until all the pictures had been matched. That is, four brands were matched to each of the three occupations to create three consumption constellations.
The instructions and the stimuli were all based on the guidelines recommended by Peracchio (1990) when designing research tasks for children. She suggests that the researcher should provide rich contextual support for retrieval of information by using familiar objects and pictures in the task. The pictures of people and objects were familiar to the children as was the task itself. That is matching and picture grouping tasks are commonly used in the primary school context. Peracchio also suggests minimising information, providing only elements that are essential to the task, and minimising the complexity of the language used. She further recommends using a goal that will be readily apparent to the child. In this task, only the actual task and the immediate goal of matching one picture to each occupation was suggested. The verbal instruction was kept to a minimum and the task goal was clearly presented. None of the children displayed any trouble completing the task. Only three pictures were presented at one time to make sure that even the youngest child would be able to cope with the number of choices. Shantz (1983) found that when presented with more than five choices, the pre-operational child is overloaded and makes fall-back choices. Peracchio suggests that between three and five choices are best in tasks that are designed for young children.

The task was considered complete when the subject had sorted all the twelve product/service ‘brands’ with all the occupations. The scoring of the responses was based on whether the Stereotypical Consumption Constellations were chosen by the subject. When each occupation was matched ‘correctly’ with the four product/service ‘brands’ that stereotypically ‘belonged’ with that occupation; a perfect score of 4 was assigned. For each product/service ‘brand’
that was non-stereotypically matched with that occupation, one point was deducted. Therefore, each subject could obtain a score of between 0-4 for each occupation, with each child receiving three separate Stereotypical Consumption Constellation Scores (SCCS) corresponding to each occupation. The Stereotypical Consumption Constellations groupings are listed in Table 3.1.

4.4.4 Stage 4: Follow-Up Questions

This stage in the data collection was included for the purposes of determining what the real reasons were for the children’s choices. Three questions were asked.

The first question asked: “Why did you choose these things to go with this person?” The purpose of the first question was to make sure that the choice of the child was being made as the researcher believed because the child recognised the groupings and not because the child was using fall-back cues, such as size and shape.

The second question asked: “Did you choose these things to go with this person because they are like the things that your relative/friend/neighbour person has?” The second question was only asked if the child had indicated that he/she knew persons belonging to any one of the three occupations. This question was asked to determine if the child’s familiarity with a particular social role (through his/her knowing people belonging to that occupational group) had a direct bearing to the choices they made. This question was also used to confirm if the scoring on the grouping task was consistent with their reasons for choice.
The third question asked was used to calculate the *Alternate/non-stereotypical Consumption Constellation Score (ASCCS)*. The subject was asked the following question “Can you tell me of another (other than the ones matched by the child in the first task) house, car, restaurant or holiday that the dentist would own/or visit”. After the child had responded, the same question was repeated for the next occupation and when that response was completed, for the third. Each group of owner with a set of four products (other than the ‘correct’ stereotypical products) was scored as one point toward the ASCCS (Alternative/non-stereotypical Consumption Constellation Score). The children could use the pictures used in the earlier task, or describe/name the product. Each combination of owner (one of the three represented in the pictures) and 4 products that the subject mentioned was counted as one point toward their ASCCS. Two judges had to reach a consensus that the described set formed an alternative/non-stereotypical consumption constellation. Thus a subject could score any mark on their ASCCS. The first two questions were regarded as necessary to give a truer and more complete picture of the subject’s reasons for choice. In some cases more elaboration was necessary, especially when the questions were used with the youngest age-group (5 and 6 year olds).

This stage of the data collection phase was conducted directly after the grouping task for each of the subjects. It was carried out, as was all the data collection, in the school setting. The entire data collection phase was conducted over one sitting, which took on an average about 30 minutes per child. No more than twelve interviews were conducted during one school-day. No single interview
was conducted over two school days. One subject’s interview was completed before another subject’s interview was begun. One class was generally completed before another class was started in order to minimise interaction between subjects. One school was completed before another school was begun, with one exception. In the one exception, the researcher had to schedule interviews with subjects in a second school during the same week as interviews were completed in the first school.

Most of the data collection took place from August until November 1997. The final few interviews were completed in February 1998 when the schools had reopened after the Summer holidays. In the last school, the Year One, Year Four, and Year Seven students were used to correspond to the age groups used in the 1997 interviews. This was done because the 1998 kindergarten children would have been much younger (4.5-5.5 years old) as compared to the kindergarten children used in the 1997 interviews at the end of the academic year (5.5-6.5 years old).

4.5 DATA ANALYSES METHODS

The data collected during Phase 2 of the research was first coded. A response sheet was used to record the responses and scoring was done on the same response sheet. The *Social Role Familiarity Scale* was used to arrive at the *Social Role Familiarity Score (SRKS)*, the grouping task resulted in the *Stereotypical Consumption Constellation Scores (SCCS)* and the *Alternative non-stereotypical Consumption Constellation Score (ASCCS)*. Using age and SRKS as independent variables and the SCCS and ASCCS as
the dependent variables, a series of Analyses of Covariance (ANCOVAs) were performed using the SAS statistical package. The ANCOVAs were used to see if there were differences in the SCCS and ASCCS across the three age groups, as well as the effects of SRKS on the SCCS and ASCCS. This was carried out using the SRKS score as a co-variate as recommended by Hair, Anderson, Tatham and Black (1995). In some cases, Factorial Analysis of Variance (ANOVAs) were also carried out along with post-hoc tests to determine where the significant differences in SCCS and ASCCS lay with regard to the three age-groups (Howell 1995). The subsequent analyses and results are discussed in the following chapters.
4.6 SUMMARY

This chapter described briefly the methodology used in the preparation for and actual collection of data for this study. An attempt was made to establish the sequence of procedures and rules adopted in the collection of the data and the reasons for using these methods. The sampling was explained and the characteristics of the sample were described. The stimulus material design was discussed using the child sample as the main rationale for the choices made. The data collection instruments were presented and the actual field work was described in order to create the background for the following chapters. This chapter, therefore, forms the basis upon which the following chapters relating to the analyses and discussion of results will be built. The next chapter will present the analyses and the results that emanated from the data collection phase.
CHAPTER 5: DATA ANALYSES AND RESULTS

This chapter presents the data analyses of the data collected using the methodology described in Chapter 4. The first part of this chapter presents the descriptive statistics of the sample. In the second section, the tests of reliability and validity of the measures used are described and the results of those tests are presented. Section 3 of the chapter presents the analyses that addressed the hypotheses of this study.

5.1 DESCRIPTIVE STATISTICS

Table 5.1: Descriptive Summary Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number</th>
<th>Mean</th>
<th>Std Dev</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>175</td>
<td>8.394</td>
<td>2.690</td>
<td>5.000</td>
<td>12.000</td>
</tr>
<tr>
<td>Sex</td>
<td>175</td>
<td>N/A</td>
<td>N/A</td>
<td>0.000</td>
<td>1.000</td>
</tr>
<tr>
<td>School</td>
<td>175</td>
<td>N/A</td>
<td>N/A</td>
<td>1.000</td>
<td>5.000</td>
</tr>
<tr>
<td>SRKD</td>
<td>175</td>
<td>3.714</td>
<td>4.961</td>
<td>0.000</td>
<td>15.000</td>
</tr>
<tr>
<td>SRKT</td>
<td>175</td>
<td>7.074</td>
<td>5.866</td>
<td>0.000</td>
<td>15.000</td>
</tr>
<tr>
<td>SRKSGC</td>
<td>175</td>
<td>1.085</td>
<td>2.886</td>
<td>0.000</td>
<td>15.000</td>
</tr>
<tr>
<td>SCCSD</td>
<td>175</td>
<td>2.240</td>
<td>1.347</td>
<td>0.000</td>
<td>4.000</td>
</tr>
<tr>
<td>SCCST</td>
<td>175</td>
<td>2.028</td>
<td>1.283</td>
<td>0.000</td>
<td>4.000</td>
</tr>
<tr>
<td>SCCSGC</td>
<td>175</td>
<td>2.760</td>
<td>1.169</td>
<td>0.000</td>
<td>4.000</td>
</tr>
<tr>
<td>ASCCSD</td>
<td>175</td>
<td>1.737</td>
<td>1.893</td>
<td>0.000</td>
<td>11.000</td>
</tr>
<tr>
<td>ASCCST</td>
<td>175</td>
<td>2.177</td>
<td>1.987</td>
<td>0.000</td>
<td>8.000</td>
</tr>
<tr>
<td>ASCCSGC</td>
<td>175</td>
<td>1.085</td>
<td>1.138</td>
<td>0.000</td>
<td>5.000</td>
</tr>
</tbody>
</table>

As Table 5.1 shows there were 175 students spread across 5 schools. The means show the highest mean for the SRKS lying with the SRKST. This was not surprising since all these children were to be sure to have a higher social role knowledge for this social role than for any other, spending a lot of their time in the company of teachers. The lowest
Of the SRKS means was for the Garbage Collector. While the mean for the social role of the dentist showed a low SRKS mean (3.714), this was the social role that showed the highest (maximum=11) of ASCCSD (Alternative non-stereotypical consumption constellation scores-Dentist). While the highest means for the SCCS was for the social role of the Garbage Collector, the highest ASCCS was for the social role of the teacher.

**Table 5.2: Sample Characteristics**

<table>
<thead>
<tr>
<th></th>
<th>Sex</th>
<th>Age in Years</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Female</td>
<td>5-6</td>
</tr>
<tr>
<td>Frequency</td>
<td>97</td>
<td>66</td>
</tr>
<tr>
<td>Percentage</td>
<td>55.4</td>
<td>37.7</td>
</tr>
<tr>
<td>Sample of Total</td>
<td>44.6</td>
<td></td>
</tr>
</tbody>
</table>

The final sample consisted of 175 completed, useable interviews. The sample had 97 girls and 78 boys. The sample consisted of 61 children in the 11-12 year age group, 48 children in the 8-9 year age group and 66 children in the 5-6 year age group (refer Table 5.2).

5.2 RELIABILITY AND VALIDITY OF MEASURES USED

Reliability and validity of the measures needed to be ensured before further analyses were carried out. Two tests were carried out. In the first instance as a test of validity (construct validity), a factor analysis of the Social Role Familiarity scale (SRKS) was carried out. As a test of internal consistency (reliability) of the measure, Cronbach’s coefficient of alpha was calculated. These tests and their results are presented in the section below.
5.2.1 Validity of the SRKS Measure

The validity of this measure was tested by using a principal component factor analysis (varimax rotation). This was done to ensure that the Underlying dimensions of the Social Role Familiarity Scale (SRKS) did indeed measure social role knowledge. The pattern of factor loadings could indicate the extent of construct validity in a scale (Nunnaly 1970, Nunnaly and Bernstein 1994).

The SRKS scale consisted of six questions. The first one was a yes/no elimination question and was therefore not included in the factor analysis. Questions 2-6 were submitted for a factor analysis. This was done once for each of the three social roles (the dentist, the teacher and the garbage collector). The results of the three factor analyses are shown in Tables 5.3, 5.4 and 5.5. As Table 5.3 shows the loadings were high on the single factor (labelled Social Role Familiarity). Factor loading cutoffs were .50 and above as suggested by Hair et al (1995). Only one factor showed eigenvalues of over 1, and the factor loadings were very high on that factor for each of the items. It was therefore decided that all the items on the scale did indeed measure the single construct of Social Role Familiarity. This would suggest that the construct validity of this measure was high. This procedure was carried out for the social roles of teacher and garbage collector also.
Table 5.3: Results of the Factor Analysis for the Social Role Familiarity Scale (SRKS) for the Social Role of the Dentist

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loading</th>
<th>Eigenvalue</th>
<th>Percentage of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Role Familiarity</td>
<td>(loading on factor 1)</td>
<td>4.66</td>
<td>.93</td>
</tr>
<tr>
<td>Number of dentists known by subject.</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well does the subject know these dentists.</td>
<td>.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often does the subject see/meet them.</td>
<td>.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where does the subject visit with the dentists.</td>
<td>.94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do the dentists talk to the subject about work.</td>
<td>.91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the factor analysis of the SRKS scale for the social role of teacher and garbage collector showed similar loadings on the one factor which was labelled Social Role Familiarity.

Table 5.4: Results of the Factor Analysis of the Social Role Familiarity (SRKS) for the Social Role of the Teacher

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loadings</th>
<th>Eigenvalue</th>
<th>Percent of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Role Familiarity</td>
<td>(loading on factor 1)</td>
<td>4.55</td>
<td>.91</td>
</tr>
<tr>
<td>Number of teachers known by subject.</td>
<td>.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well does the subject know these teachers.</td>
<td>.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often does the subject see/meet these teachers.</td>
<td>.93</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where does the subject meet/visit these teachers.</td>
<td>.92</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do these teachers talk to the subject about their work.</td>
<td>.85</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results of this factor analysis are similar to the one carried out on the scale for the social role of dentist. It shows high loading on the one factor when the .40 cutoffs were used. This was the only factor with an eigenvalue of over 1. This scale seemed therefore to have good construct validity since it appeared to measure the single construct of Social Role Familiarity.

The results of the factor analysis on the SRKS for the social role of garbage collector are presented in Table 5.5.

<table>
<thead>
<tr>
<th>Factor/Item</th>
<th>Factor Loading</th>
<th>Eigenvalue</th>
<th>Proportion of Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Role Familiarity</td>
<td>(Loading on factor 1)</td>
<td>4.61</td>
<td>.92</td>
</tr>
<tr>
<td>Number of garbage collectors known by subject.</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How well does the subject know these garbage collectors.</td>
<td>.95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often does the subject meet/visit these garbage collectors.</td>
<td>.89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where does the subject meet/visit these garbage collectors.</td>
<td>.97</td>
<td></td>
<td></td>
</tr>
<tr>
<td>How often do these garbage collectors talk to the subject about their work.</td>
<td>.93</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear that for the social role of garbage collector too, the SRKS is a valid measure. The high item loadings are all on the one factor, signifying the measurement of a single construct.
5.2.2 Reliability of the SRKS and SCCS Measures

Section 5.2.1 presented the results of the validity testing for the independent measure of the SRKS scale. The reliability of these measures needed to be established before further analysis. A widely accepted measure of internal consistency or reliability is Cronbach’s coefficient alpha (Nunnaly 1970). It is an useful measure especially when variables are measured using multiple items, as in this case. The results of the reliability tests for both the dependent measure of SRKS and the dependent measure of SCCS are presented in Tables 5.6 and 5.7 respectively.

Table 5.6: Summary of Results of Reliability Test on the SRKS Measure

<table>
<thead>
<tr>
<th>Variable/Items</th>
<th>Alpha</th>
<th>Inter-Item Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>T</td>
</tr>
<tr>
<td>Social Role Familiarity</td>
<td>.98</td>
<td>.97</td>
</tr>
<tr>
<td>How many known</td>
<td>.96</td>
<td>.96</td>
</tr>
<tr>
<td>How well known</td>
<td>.95</td>
<td>.93</td>
</tr>
<tr>
<td>How often seen/met</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Where seen/visited</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talk about work-how often</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

D: Dentist; T: Teacher; GC: Garbage Collector

The results show that all the items show high inter item-correlations. Nunnaly (1970) suggests a cut off of .70 for inter-item correlations. The items on the SRKS for all the social roles exceeded this standard. Churchill and Peter (1984) suggest that a .50 coefficient of alpha is acceptable as a reliable standard. The alpha calculated for the SRKS was .97 for two of the social roles and .98 for the
third - all well above the .50 standard set as acceptable. Overall therefore, the SRKS scale was accepted as being reliable and internally consistent.

The reliability of the dependent variable SCCS was also tested by calculating the coefficient of alpha for the measure. The results are shown in Table 5.7.

<table>
<thead>
<tr>
<th>Variable/Items</th>
<th>Alpha</th>
<th>Inter-Item Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D</td>
<td>T</td>
</tr>
<tr>
<td>Social Role Familiarity</td>
<td>.89</td>
<td>.83</td>
</tr>
<tr>
<td>House</td>
<td>.73</td>
<td>.72</td>
</tr>
<tr>
<td>Car</td>
<td>.79</td>
<td>.75</td>
</tr>
<tr>
<td>Restaurant</td>
<td>.72</td>
<td>.81</td>
</tr>
</tbody>
</table>

D: Dentist; T: Teacher; GC: Garbage Collector

The items on the SCCS measures showed that the items on all the three measures had good inter-item correlation. The alpha values for each of the social roles appeared to meet the standard cut-off of .50 and therefore overall the SCCS measure appeared to be reliable.

5.3 HYPOTHESES TESTING

After the validity and reliability of the measures had been ascertained, the research hypotheses were addressed. To do this, a series of separate analytical procedures were used for each hypothesis. Each of these will be described in turn.
In the first instance ANCOVAs or Factorial ANOVAs were used and if these resulted in significant results, appropriate Post hoc tests were carried out to see where the significant differences lay. ANCOVAs were used to consider the effect of both age and SRKS on the dependent variable of SCCS and the number of alternate non-stereotypical consumption constellations mentioned (ASCCS). In each case the F value statistic and the p-value were checked to see if the independent variable of age and SRKS (covariate) had a significant influence on the dependent variables of SCCS and ASCCS.

In deciding to use ANCOVAs, a number of factors were taken into consideration. It was necessary in this study to see if the group means the age cohorts were equal in the population by comparing the the sample variance estimated from the group means to that estimated within the groups.

The General Linear model multivariate procedure (SAS Statistical package) was used to run a unbalanced ANCOVA to test the effects of factor variables on the means of various groupings of a joint distribution of dependent variables. SRKS as a covariate was also included in this procedure. The model was an unbalanced one because there were unequal cell numbers. In addition Residuals and Cook's Distance statistic was calculated (SAS Multivariate procedures 1991)) to check for outliers or influential observations in the data set.

If the overall F statistic showed significance, post-hoc tests were used to evaluate differences among specific means. The Student –Newman-Keuls (SNK), Tukey's HSD, and Scheffe's test were all carried out to see if the differences were along age group divisions.
Factorial ANOVAS were also carried out in some cases to test two of the hypotheses. In these cases too, where there appeared significant differences between the groups, post hoc tests were carried out to identify where the significant differences between the groups lay. Three such tests were used and reported. Student -Newman-Keuls test, Tukey’s Studentized Range (HSD) and Scheffe’s) T tests were are carried out on significant results of the ANOVAS.

5.3.1 Hypothesis 1: Pre-operational Children will identify correctly the Stereotypical Consumption Constellation associated with a Particular Occupational Role

This hypothesis was tested in turn for each of the three occupational roles. In each case the same analytical steps were followed. First an ANCOVA was run on the dependent variable of SCCS with SRKS as a covariate, to see if age was a significant independent variable. If these results were significant Post hoc tests were carried out to see exactly where these differences lay.

5.3.1.1 Hypothesis 1 for the Social/Occupational Role of Dentist

The results of the ANCOVA with SRKSD on SCCSD (Stereotypical Consumption Constellation Scores Dentist) are presented in Table 5.9.

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.7424</td>
<td>1.1937</td>
<td>66</td>
</tr>
<tr>
<td>8</td>
<td>2.1875</td>
<td>1.2318</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>2.8197</td>
<td>1.3845</td>
<td>61</td>
</tr>
</tbody>
</table>
From the results it was clear that for the occupational role of dentist, age was the only variable with significant explanatory power. The results of this procedure are presented in Table 5.9.

Table 5.9: Results of ANCOVA Between Age and SCCSD with SRKSD as Covariate

<table>
<thead>
<tr>
<th>Effect</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Sum of Squares</th>
<th>F Value</th>
<th>P &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>43.87</td>
<td>6.74</td>
<td>5.45</td>
<td>0.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>9</td>
<td>674</td>
<td>6.74</td>
<td>418.9</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>31.90</td>
<td>15.95</td>
<td>9.91</td>
<td>0.000</td>
</tr>
<tr>
<td>SRKSD</td>
<td>1</td>
<td>2.38</td>
<td>2.38</td>
<td>1.48</td>
<td>0.225</td>
</tr>
<tr>
<td>Age x SRKSD</td>
<td>2</td>
<td>3.350</td>
<td>1.675</td>
<td>1.04</td>
<td>0.356</td>
</tr>
<tr>
<td>Error</td>
<td>169</td>
<td>272</td>
<td>1.610</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>1194</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The ANCOVA indicates that there are significant differences between the groups on their SCCSD scores based on age. To identify exactly where these significant differences lie, post hoc tests were carried out. As mentioned before these three post hoc tests (Student Newman-Keuls, the Tukey’s HSD and the Scheffe’s) were used to see if the mean scores of the pre-operational group of children was significantly different from zero, which would indicate that this group of children were correctly identifying the stereotypical consumption constellation associated with the occupational group of dentists.
The results of the post hoc tests are presented in Table 5.10.

### Table 5.10: Results of the Post Hoc Tests For the Dependent Variable SCCSD

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>SNK</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>61</td>
<td>2.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - 9</td>
<td>48</td>
<td>2.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 6</td>
<td>66</td>
<td>1.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Tukey's</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>61</td>
<td>2.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - 9</td>
<td>48</td>
<td>2.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 6</td>
<td>66</td>
<td>1.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Scheffe's</th>
<th>1</th>
<th>2</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>61</td>
<td>2.82</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8 - 9</td>
<td>48</td>
<td>2.21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 - 6</td>
<td>66</td>
<td>1.78</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the results of the post hoc tests there appear two clearly different groupings. These overlap roughly along the age groups. The clearest differences being between the 5-6 year olds and 11-12 year olds. However the result of most relevance to this hypothesis are the means of the 5 and 6 year olds (the pre-operational group).

The means of the 5-6 year olds = 1.78 and which not greater than the 2.02 required to be significantly greater than chance (refer Appendix 2 for estimation of the ‘correct’ score) and therefore Hypothesis 1 for the social/occupational role of dentist is not supported.
5.3.1.2 Hypothesis 1 for the Social/Occupational Role of Teacher

Similar analyses were carried out on the scores for the social role of teacher.

ANCOVA using age against ASCCST with SRKST as covariate was carried out. The results of this are reported in Table 5.12. This also showed that the differences between the age groups on SCCST were not significant.

Table 5.11: Descriptive Statistics for Dependent Variable SCCST

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>1.80</td>
<td>1.11</td>
<td>66</td>
</tr>
<tr>
<td>8</td>
<td>1.96</td>
<td>1.22</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>2.39</td>
<td>1.44</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>175</td>
</tr>
</tbody>
</table>

Table 5.12: Results of the ANCOVA

Between Age and SCCST with SRKST as Covariate.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>26.61</td>
<td>5.32</td>
<td>3.46</td>
<td>.005</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>682.99</td>
<td>682.99</td>
<td>444.07</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>20.772</td>
<td>10.38</td>
<td>6.75</td>
<td>.002</td>
</tr>
</tbody>
</table>
The results of the ANCOVA showed that there were no significant differences between the age groups on the SCCST scores. Post hoc tests were however carried out, despite this to see if the means were significantly above that gained by random allocation (2.02). The results of the Post Hoc tests are shown in Table 5.12a.

**Table 5.12a. Results of the Post Hoc tests for the Dependent Variable SCCST.**

<table>
<thead>
<tr>
<th>Post Hoc test</th>
<th>Age in years</th>
<th>N</th>
<th>Subsets (by means)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SNK</td>
<td>11-12</td>
<td>61</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>48</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>66</td>
<td>1.96</td>
</tr>
<tr>
<td>Tukey’s HSD</td>
<td>11 - 12</td>
<td>61</td>
<td>1.80</td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>48</td>
<td>1.96</td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>66</td>
<td>1.96</td>
</tr>
</tbody>
</table>
The Post Hoc tests revealed that the means for the Pre-operational group were not significantly above that of random allocation. This showed that H1 for the social role of teacher is not supported.

### 5.3.1.3 Hypothesis 1 for the Social/Occupational Role of Garbage Collector

Descriptive statistics for SCCST are shown in Table 5.13.

The ANCOVA was carried out to ensure that the differences between the age groups on SCCSGC was indeed significant. The results of this ANCOVA are shown in Table 5.14. The ANCOVA showed that the differences were indeed significant at the .0001 level. This indicated that further Post hoc tests needed to be conducted to identify exactly where these differences lay and if the pre-operational group of children were able to identify correctly the correct SCCSGC. Results of the Post hoc tests are seen in Table 5.15.
Table 5.13: Descriptive Statistics for Dependent Variable

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>2.18</td>
<td>1.19</td>
<td>66</td>
</tr>
<tr>
<td>8</td>
<td>2.91</td>
<td>.99</td>
<td>48</td>
</tr>
<tr>
<td>11</td>
<td>3.26</td>
<td>.98</td>
<td>61</td>
</tr>
</tbody>
</table>

Table 5.14: Results of ANCOVA for Dependent Variable of SCCSGC

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>45.18</td>
<td>9.03</td>
<td>7.96</td>
<td>.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>269.99</td>
<td>269.94</td>
<td>237.90</td>
<td>.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>3.75</td>
<td>1.88</td>
<td>1.66</td>
<td>.000</td>
</tr>
<tr>
<td>SRKST</td>
<td>1</td>
<td>2.41</td>
<td>2.41</td>
<td>2.13</td>
<td>.147</td>
</tr>
<tr>
<td>Age x SRKST</td>
<td>2</td>
<td>3.76</td>
<td>1.88</td>
<td>1.66</td>
<td>.193</td>
</tr>
<tr>
<td>Error</td>
<td>169</td>
<td>191.75</td>
<td>1.14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>1559</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 5.15: Results of Post Hoc Tests

for the Dependent Variable of SCCSGC

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>N</th>
<th>Subsets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SNK</td>
<td>11-12</td>
<td>66</td>
<td>3.26</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td>2.98</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>61</td>
<td>2.18</td>
</tr>
<tr>
<td>Tukey's</td>
<td>11-12</td>
<td>66</td>
<td>3.26</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td>2.98</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>61</td>
<td>2.18</td>
</tr>
<tr>
<td>Scheffe's</td>
<td>11-12</td>
<td>66</td>
<td>3.26</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td>2.91</td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>61</td>
<td>2.18</td>
</tr>
</tbody>
</table>

The Post hoc tests show that the means of the 5-6 year olds are significantly greater than chance (evaluated at a score of 2.02, refer Appendix 2). This indicates that children in these age groups can correctly identify the correct stereotypical consumption constellation for the social role of garbage collector. Thus H1 for the social role of garbage collector is supported.
### 5.3.1.4 Summary of Results for H1

<table>
<thead>
<tr>
<th>Hypothesis 1: For all social roles, pre-operational group of children will be able to identify accurately, the stereotypical consumption constellation associated with a particular occupational role.</th>
<th>Analytical Procedures</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1 for Occupational Role Of Dentist</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups. Pre-operational children have mean scores not significantly different from chance (less than 2.02). <strong>Conclusion:</strong> H1 for occupational role of Dentist is not supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td></td>
</tr>
<tr>
<td>H1 for Occupational Role Of Teacher</td>
<td>1. ANCOVA</td>
<td>No significant age effect. No significant differences between age groups. No Post hoc tests conducted. <strong>Conclusion:</strong> H1 for the occupational group of Teacher is not supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td></td>
</tr>
<tr>
<td>H1 for Occupational Role Of Garbage Collector</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups. Pre-operational children have mean scores greater than 2.02 (greater than chance). <strong>Conclusion:</strong> H1 for the occupational role of Garbage Collector is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td></td>
</tr>
</tbody>
</table>
5.3.2 Hypothesis 1a: For all Social Roles, Pre-Operational Children will provide no Alternative, Non-stereotypical Consumption Constellations

This hypothesis was tested using ANCOVAs with appropriate post hoc tests where necessary. These will be discussed with reference to each social role.

5.3.2.1 H1a for the Social Role of Dentist

Table 5.16: Descriptive Statistics for Dependent Variable ASCCSD

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 6</td>
<td>.48</td>
<td>1.99</td>
<td>66</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.48</td>
<td>1.23</td>
<td>48</td>
</tr>
<tr>
<td>11 - 12</td>
<td>3.03</td>
<td>1.38</td>
<td>61</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>175</td>
</tr>
</tbody>
</table>

The results of the ANCOVA show that the age variable has an influence on the dependent variable ASCCSD. SRKSD also appears to have an influence on the ASCCSD.
Table 5.17: Results of the ANCOVA between Age and ASCCSD with SRKSD as Covariate.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>304.08</td>
<td>60.82</td>
<td>43.93</td>
<td>0.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>507.28</td>
<td>507.28</td>
<td>366.43</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>177.30</td>
<td>88.65</td>
<td>64.03</td>
<td>0.000</td>
</tr>
<tr>
<td>SRKST</td>
<td>1</td>
<td>72.06</td>
<td>72.06</td>
<td>52.057</td>
<td>0.000</td>
</tr>
<tr>
<td>Age x SRKST</td>
<td>2</td>
<td>15.47</td>
<td>7.73</td>
<td>5.59</td>
<td>0.004</td>
</tr>
<tr>
<td>Error</td>
<td>169</td>
<td>233.96</td>
<td>1.38</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>1012</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results show that there is indeed a significant difference between the age groups on their ASCCSD ($F = 64.03$ at $0.0001$). This then needed to be followed up with post hoc tests to see where exactly these significant differences lie. The results of the post hoc tests are shown in Table 5.18.

The results of the Post hoc tests show quite clearly that the mean scores of the pre-operational children (5-6 year olds) are below one (refer Appendix 3), for each of the three tests indicating that these are not significantly different from zero. This would lend support for H1a for the social role of the dentist.
Table 5.18: Results of Post Hoc Tests for the Dependent Variable of ASCCSD

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>N</th>
<th>Subsets</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>SNK</td>
<td>11 - 12</td>
<td>61</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>48</td>
<td>1.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>66</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tukey's</td>
<td>11 - 12</td>
<td>61</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>48</td>
<td>1.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>66</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheffe's</td>
<td>11 - 12</td>
<td>61</td>
<td>3.03</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>48</td>
<td>1.48</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5 - 6</td>
<td>66</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.3.2.2 H1a for the Social Role of Teacher

ANCOVAs were used for this occupational role also. The results of the ANCOVAs are reported in Table 5.20.

Table 5.19: Descriptive Statistics for the Dependent Variable ASCCST

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 - 6</td>
<td>1.80</td>
<td>1.11</td>
<td>66</td>
</tr>
<tr>
<td>8-9</td>
<td>1.96</td>
<td>1.22</td>
<td>48</td>
</tr>
<tr>
<td>11 - 12</td>
<td>2.39</td>
<td>1.44</td>
<td>61</td>
</tr>
</tbody>
</table>

From the results of the ANCOVA it appears clear that the age variable has an influence on the ASCCST.
Table 5.20: Results of ANCOVA
Between Age and ASCCST with SRKST as Covariate.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>370.79</td>
<td>74.16</td>
<td>41.04</td>
<td>0.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>647.92</td>
<td>647.92</td>
<td>358.58</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>241.81</td>
<td>120.91</td>
<td>66.91</td>
<td>0.000</td>
</tr>
<tr>
<td>SRKST</td>
<td>1</td>
<td>39.07</td>
<td>39.07</td>
<td>21.62</td>
<td>0.000</td>
</tr>
<tr>
<td>Age x SRKST</td>
<td>2</td>
<td>.845</td>
<td>.422</td>
<td>.234</td>
<td>0.792</td>
</tr>
<tr>
<td>Error</td>
<td>169</td>
<td>305.36</td>
<td>1.807</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>1450</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the ANCOVA show clearly that there are significant differences on the ASCCST scores between the age groups. It was therefore necessary to identify exactly where the differences lay and if the pre-operational group of children had scores on the ASCCST that were not significantly greater than zero. To do this, Post hoc tests were carried out. The results of the Post hoc tests are reported in Table 5.21.
Table 5.21: Results of Post Hoc Tests on the Dependent Variable

<table>
<thead>
<tr>
<th>Age</th>
<th>N</th>
<th>Subsets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SNK</td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td>5 - 6</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>8 - 9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>11 - 12</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Tukey's</td>
<td></td>
<td>.68</td>
</tr>
<tr>
<td>5 - 6</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>8 - 9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td>11 - 12</td>
<td>61</td>
<td></td>
</tr>
<tr>
<td>Scheffe's</td>
<td>5 - 6</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>66</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8 - 9</td>
<td>1.83</td>
</tr>
<tr>
<td></td>
<td>61</td>
<td></td>
</tr>
<tr>
<td></td>
<td>11 - 12</td>
<td>3.87</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is clear that in each case, the tests show that the mean scores for the pre-operational group (5-6 year olds) are below 1 and are not significant (see Appendix 3). This would indicate that the pre-operational children could not provide alternate non-stereotypical consumption constellations. This result lends support for H1a for the social/occupational role of teacher.

5.3.2.3 H1a for the Social Role of Garbage Collector

The same analyses were carried out on the ASCCS scores for the role of Garbage collector. The initial ANCOVA showed that there was a significant age effect. The results of this procedure is presented in Table 5.23.
Table 5.22: Descriptive Statistics for the Dependent Variable

<table>
<thead>
<tr>
<th>Age</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-6</td>
<td>.50</td>
<td>.99</td>
<td>66</td>
</tr>
<tr>
<td>8-9</td>
<td>1.00</td>
<td>.92</td>
<td>48</td>
</tr>
<tr>
<td>11-12</td>
<td>1.92</td>
<td>1.31</td>
<td>61</td>
</tr>
</tbody>
</table>

The results of the ANCOVA show that age has a significant effect on the ASCCSGC scores.

Table 5.23: Results of the ANCOVA for Age and ASCCSGC with SRKSGC as Covariate.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P&gt;F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>5</td>
<td>68.34</td>
<td>13.669</td>
<td>11.34</td>
<td>0.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>1</td>
<td>79.135</td>
<td>79.14</td>
<td>65.67</td>
<td>0.000</td>
</tr>
<tr>
<td>Age</td>
<td>2</td>
<td>20.75</td>
<td>10.38</td>
<td>8.61</td>
<td>0.000</td>
</tr>
<tr>
<td>SRKST</td>
<td>1</td>
<td>3.19</td>
<td>3.19</td>
<td>2.64</td>
<td>0.106</td>
</tr>
<tr>
<td>Age x SRKST</td>
<td>2</td>
<td>1.19</td>
<td>.59</td>
<td>.49</td>
<td>0.612</td>
</tr>
<tr>
<td>Error</td>
<td>169</td>
<td>203.64</td>
<td>1.20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>175</td>
<td>496</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Post hoc tests were carried out to determine exactly where the differences lay between the age groups. The results of the post hoc tests are shown in Table 5.24. These indicate that the scores for the youngest
group of pre-operational children are below one (see Appendix 3) and approaching 0. This indicates support for H1a that pre-operational children could not provide alternate non-stereotypical consumption constellations for the social role of garbage collector.

Table 5.24: Results of the Post Hoc Tests for the Dependent Variable of ASCCGSC

<table>
<thead>
<tr>
<th></th>
<th>Age</th>
<th>N</th>
<th>Subsets</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>SNK</td>
<td>11-12</td>
<td>61</td>
<td>1.92</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Tukey's</td>
<td>11-12</td>
<td>61</td>
<td>1.92</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>66</td>
<td></td>
</tr>
<tr>
<td>Scheffe's</td>
<td>11-12</td>
<td>61</td>
<td>1.92</td>
</tr>
<tr>
<td></td>
<td>8-9</td>
<td>48</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5-6</td>
<td>66</td>
<td></td>
</tr>
</tbody>
</table>
5.2.3.4 Summary of Results for H1a

<table>
<thead>
<tr>
<th><strong>Hypothesis:</strong> For all social roles, pre-operational children (below the age of 7) will provide no alternative, non-stereotypical consumption constellations.</th>
<th><strong>Analyses</strong></th>
<th><strong>Results</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>H1a for Occupational Role Of Dentist</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups on ASCCSD. ASCCSD scores of pre-operational children are not significantly greater than zero. Conclusion: H1a for occupational role of dentist is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
<tr>
<td>H1a for Occupational Role Of Teacher</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age groups on ASCCST. ASCCST scores of pre-operational children are not significantly greater than zero. Conclusion: H1a for the occupational group of teacher is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
<tr>
<td>H1a for Occupational Role Of Garbage Collector</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups on ASCCSGC. ASCCSGC scores of pre-operational children are not significantly greater than zero. Conclusion: H1a for the occupational role of garbage collector is supported.</td>
</tr>
</tbody>
</table>
5.3.3 Hypothesis 2: For all Social Roles, the Early Concrete Operational (8 and 9 year old) Children will identify, more accurately than the Pre-Operational (below 7 years) Age-Group, the Accurate Stereotypical Consumption Constellation

The analyses carried out on the data to provide support for this hypothesis followed the same steps as for Hypothesis 1. First an ANCOVA was run to see if age had a significant influence on the regression equation. If the ANCOVA showed that there were significant difference, post-hoc tests were run to identify where exactly the differences lay among the groups and mean scores were compared to see if the hypothesis was supported.

5.3.3.1 H2 for the Social Role of Dentist

As with H1 the ANCOVA was used to see if there was a significant age effect.

1. That significant differences exist in SCCSD between the different age groups (refer Table 5.9). The results of the ANOVA showing a F value = 9.91 (at 000)

2. That the post-hoc tests (refer Table 5.10) show 8-9 year olds have SCCSD scores whose means are clearly higher than that of the pre-operational (5-6 year olds) (refer Appendix 2). The results therefore indicates that H2 for the occupational role of Dentist is supported.
5.3.3.2 H2 for the Social Role of Teacher

As with H2 for the social role of dentist, the analytical steps followed were the same.

1. The ANCOVA on SCCST was also indicative of this. The results showed that age ($F = 6.75$ (0.002) level of significance) was not a strong explanatory factor for the differences between SCCST (refer Table 5.12). Post hoc tests were carried out to see if the means were higher for the early-concrete operational group over the pre-operational group (see table 5.12a). Because of the weak age effects, H2 for the social role of teacher is not supported.

5.3.3.3 H2 for the Social Role of Garbage Collector

The analytical steps in this case were the same as for the other social roles. An initial ANCOVA was followed up by post-hoc tests.

1. The ANCOVA of age against SCCSGC showed that there significant differences between the age groups on their SCCSGC (refer Table 5.14). The $F$ value = 1.66 at the 0.000 level of significance.

2. The post hoc tests showed (refer Table 5.15) that the mean scores of the early concrete operational children were clearly higher than that of the pre-operational children. This indicated that H2 for the social role of garbage collector is supported.
5.3.3.4 Summary of Results for H2

<table>
<thead>
<tr>
<th>Hypothesis 2: For all social roles, the early concrete operational (8 and 9 years) group of children will identify, more often than the pre-operational (below 7 years) group, the accurate stereotypical consumption constellation.</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H2 for Social Role Of Dentist</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups.</td>
</tr>
<tr>
<td>2. Post-hoc tests</td>
<td></td>
<td>Mean of the pre-operational children is less than that of the early concrete operational group.</td>
</tr>
<tr>
<td><strong>Conclusion:</strong> H2 for the social role of dentist is supported</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2 for Social Role Of Teacher</td>
<td>1. ANCOVA</td>
<td>Age effect is not significant.</td>
</tr>
<tr>
<td>2. Post Hoc Tests</td>
<td></td>
<td>No significant differences between the age groups.</td>
</tr>
<tr>
<td><strong>Conclusion:</strong> H2 for the social role of teacher is not supported.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2 for Social Role Of Garbage Collector</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between the age-groups.</td>
</tr>
<tr>
<td>2. Post-hoc tests</td>
<td></td>
<td>Means of the early-concrete operational children are higher than that of the pre-operational children.</td>
</tr>
<tr>
<td><strong>Conclusion:</strong> H2 for the social role of garbage collector is supported.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5.3.4 Hypothesis 3: For all Social Roles, the Late Concrete Operational (11 and 12 year olds) Group of Children will identify more often than the Early Concrete Operational (8 and 9 year olds) and the Pre-operational (below 7 years) Children, the Accurate Consumption Constellation

Two analytical steps taken to see if this hypothesis was supported. An ANCOVA was carried out, if this showed significant results, it was followed up by Post hoc tests.

5.3.4.1 H3 for the Social Role of Dentist

1. An ANCOVA was carried out between age and SCCSD and the results (refer Table 5.9) showed that there were significant differences between the age groups on SCCSD ($F = 9.91$ at the 0.000 level of significance).

2. The post hoc tests (refer Table 5.10) carried out showed that the 11-12 year olds’ means on the SCCSD were the highest of all the other groups. The 11-12 year olds mean = 2.82, the 8-9 year olds mean = 2.21 and that of the 5-6 year olds was 1.78.

Overall the results indicate that Hypothesis 3 for the social/occupational role of the dentist is supported.

5.3.4.2 H3 for the Social Role of Teacher

The analytical steps followed were similar for this social role as for the dentist. ANCOVAs were followed by Post hoc tests if appropriate.
1. The ANCOVA result was similarly poor for the age and SCCST variables. The F value = 6.75, at 0.002 level (refer Table 5.12). This indicated that there were no significant differences between the age groups on the SCCST. Post Hoc tests were carried out (see Table 5.12a), and the means of the late-concrete—operational group was seen to be clearly higher than that of the younger groups of children. However, since the age effect itself was not significant, it was concluded that H3 for the social role of teacher was not supported.

5.3.4.3 H3 for the Social Role of the Garbage Collector

The analytical steps for this social role were the same as for the social role of teacher.

1. The ANCOVA was carried out to see if the differences between the age groups were significant. It showed an F value = 1.66 at the 0.0001 level. This showed that the differences between the age groups on the SCCSGC were significant (refer Table 5.14).

2. The Post hoc tests score of the late concrete operational children were clearly higher than that of the early concrete operational and the pre-operational children (11-12 year olds = 3.26; 8-9 year olds = 2.98 and 5-6 year olds = 2.18) (refer Table 5.15). The results indicated that H3 for the social role of the Garbage Collector was supported.
### 5.3.4.4 Summary of Results for H3

<table>
<thead>
<tr>
<th>Hypothesis 3: For all social roles, the late concrete operational (11 and 12 year olds) children will identify more often than the early concrete operational (8 and 9 year olds) and the pre-operational (5 and 6 year olds), the accurate stereotypical consumption constellation.</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H3 for Social Role Of Dentist</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-groups. Sequential age scores. <strong>Conclusion:</strong> H3 for the social role of dentist is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
<tr>
<td>H3 for Social Role Of Teacher</td>
<td>1. ANCOVA</td>
<td>Not significant age effect seen. No significant differences between the age groups. <strong>Conclusion:</strong> H3 for the social role of teacher is not supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post Hoc tests</td>
<td></td>
</tr>
<tr>
<td>H3 for Social Role Of Garbage Collector</td>
<td>1. ANCOVA</td>
<td>Significant age effect seen. Significant differences between the age groups. The late concrete operational group showed higher mean scores than either the pre-operational or early concrete operational group of children. <strong>Conclusion:</strong> H3 for the social role of garbage collector is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
</tbody>
</table>
5.3.5 Hypothesis 4: for all Social Roles, the Early Concrete Operational Group of Children will be able to Provide Alternative Non-Stereotypical Consumption Constellations

5.3.5.1 H4 for the Social Role of Dentist

1. The ANCOVA showed that the differences in ASCCSD across the age groups was significant (refer Table 5.17). The F value = 64.03 at the 0.000 level.

2. Post hoc tests were carried out to see where exactly the significant differences lay and if the 8-9 year olds had scores that were greater than the pre-operational group (one or greater than one - see Appendix 3). The different means are shown in Table 5.25.

Table 5.25: Mean Scores on ASCCSD across Age Groups

<table>
<thead>
<tr>
<th>Age (In Years)</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>3.03</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.48</td>
</tr>
<tr>
<td>5 - 6</td>
<td>.48</td>
</tr>
</tbody>
</table>

The means show that H4 for the social role of dentist was supported.

5.3.5.2 H4 for the Social Role of Teacher

As with the social role of the dentist the same analytical steps were performed.
1. The ANCOVA supported this result and indicated that there were significant differences between the age groups with reference to ASCCST. F value = 66.91 at the 0.000 level (refer Table 5.20).

2. Post hoc tests showed that that the early concrete operational group of children had mean scores that were higher than that of the pre-operational group (see Table 5.26).

<table>
<thead>
<tr>
<th>Age (In Years)</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>11-12</td>
<td>3.87</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.83</td>
</tr>
<tr>
<td>5 - 6</td>
<td>.68</td>
</tr>
</tbody>
</table>

The results in Table 5.26 show that the mean scores of the early concrete operational group are higher than those of the pre-operational group (one or greater than one - see Appendix 3). This shows that H4 for the social role of teacher is supported.

5.3.5.3 H4 for the Social Role of Garbage Collector

Similar procedures were followed in this case as for the dentist and the teacher.

1. An ANCOVA showed that there was a significant differences between the ages on their ASCCSGC scores. The F value = 8.61 at the 0.000 level. (refer Table 5.23).

2. The Post hoc tests showed support for the hypothesis that the early concrete group had higher mean scores (which were one or greater
- see Appendix 3) than the pre-operational group of children (Table 5.27).

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>1.92</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.00</td>
</tr>
<tr>
<td>5 - 6</td>
<td>.43</td>
</tr>
</tbody>
</table>

The Post hoc tests showed that H4 for the social role of garbage collector is supported.
### 5.3.4.4 Summary of Results for H4

<table>
<thead>
<tr>
<th>Hypothesis 4: For all social roles, the early concrete operational (8 and 9 year olds) children will be able to provide alternative non-stereotypical consumption constellations.</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H4 for Social Role Of Dentist</strong></td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-group on ASCCSCGC.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td>Early concrete operational children had means that were higher than that of the pre-operational children.</td>
</tr>
<tr>
<td><strong>H4 for Social Role Of Teacher</strong></td>
<td>1. ANCOVA</td>
<td><strong>Conclusion:</strong> H4 for the social role of dentist is supported. Significant age effect. Significant differences between age groups on ASCCST. Early concrete operational children showed means that were higher than those of the pre-operational group.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td><strong>Conclusion:</strong> H4 for the social role of teacher is supported.</td>
</tr>
<tr>
<td><strong>H4 for Social Role Of Garbage Collector</strong></td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age groups on ASCCSCGC. Early concrete operational children had means that were higher than that of the pre-operational children.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td><strong>Conclusion:</strong> H4 for the social role of garbage collector is supported.</td>
</tr>
</tbody>
</table>
5.3.6 Hypothesis 4a: for all Social Roles, the Late Concrete Operational Children (11 and 12 Years) will provide more Alternative Non-Stereotypical Consumption Constellations than the Early Concrete Operational (8 and 9 Years) Children

Similar analyses were carried out for this hypothesis for each of the three social roles as in the case of H4. An ANCOVA was carried out, followed by post hoc tests if they were seen as necessary following on the results of the ANCOVA. The results are discussed for each of the three social roles in turn.

5.3.6.1 H4a for the Social Role of Dentist

1. The results of the ANCOVA showed that there were significant differences between the age groups on their ASCCSD. F value = 64.03 at the 0.0001 level. (refer Table 5.17).

2. The Post hoc tests showed that the means increased with age showing the late concrete operational children to have the highest means of all the three age groups. (See Table 5.28).

<table>
<thead>
<tr>
<th>Table 5.28: Mean Scores on ASCCSD across Ages</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age in Years</td>
</tr>
<tr>
<td>---------------</td>
</tr>
<tr>
<td>11 - 12</td>
</tr>
<tr>
<td>8 - 9</td>
</tr>
<tr>
<td>5 - 6</td>
</tr>
</tbody>
</table>

Thus it is seen that the means of the children in the late concrete operational group are clearly the highest as compared to the pre-operational group which is below 1 and the early concrete operational...
(= 1.48). It can be therefore concluded that H4a for the social role of dentist is supported.

5.3.6.2 H4a for the Social Role of Teacher

The same analytical procedure was followed for this social role as with the dentist scores.

1. The ANCOVA showed that the differences across the age groups on ASCCST was significant with F value = 66.91 at the 0.000 level of significance (refer Table 5.20).

2. The post hoc tests revealed that the clearest age groupings of all so far. Three distinct groups were seen along the pre-operational (5-6 years), the early concrete operational (8-9 years) and the late concrete operational (11-12 years) (refer Table 5.21). The means were likewise clearly sequential, increasing with age (see Table 5.29).

<table>
<thead>
<tr>
<th>Age in Years</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>3.87</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.83</td>
</tr>
<tr>
<td>5 - 6</td>
<td>.68</td>
</tr>
</tbody>
</table>

Thus is seen that H4a for the social role of the teacher is strongly supported.
5.3.6.3 H4a for the Social Role of the Garbage Collector

1. The ANCOVA (see Table 5.23) showed that the differences between the age groups on the ASCCSGC were significant \( (F=8.61 \text{ at the } 0.000 \text{ level}) \). Therefore Post hoc tests were carried out to see where these differences lay.

2. The post hoc tests revealed that the mean scores were all sequential and increased with age (see Table 5.30). The results shown in the table show strong support for H4a, score means increasing with increasing age.

<table>
<thead>
<tr>
<th>Age In Years</th>
<th>Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>11 - 12</td>
<td>1.92</td>
</tr>
<tr>
<td>8 - 9</td>
<td>1.00</td>
</tr>
<tr>
<td>5 - 6</td>
<td>.43</td>
</tr>
</tbody>
</table>
### 5.3.6.4 Summary of Results for H4a

<table>
<thead>
<tr>
<th>Hypothesis 4a: For all social roles, the late concrete operational children will provide more alternative non-stereotypical consumption constellations than the early concrete operational.</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>H4a for Social Role Of Dentist</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age-group on ASCCSD. Late concrete operational children have the highest mean scores of all the age groups. Conclusion: H4a for the social role of dentist is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
<tr>
<td>H4a for Social Role Of Teacher</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age groups on ASCCST. Late concrete operational children have had the highest mean scores on their ASCCST. Conclusion: H4a for the social role of teacher is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td></td>
</tr>
<tr>
<td>H4a for Social Role Of Garbage Collector</td>
<td>1. ANCOVA</td>
<td>Significant age effect. Significant differences between age groups. Late concrete operational group of children had the highest mean scores for ASCCSGC. Conclusion: H4a for the social role of garbage collector is supported.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td></td>
</tr>
</tbody>
</table>
5.3.7 Hypothesis 5: For all Social Groups, Children of all Age Groups with high Social Role Knowledge will provide greater Alternative Non-Stereotypical Consumption Constellations than those with low Social Role Knowledge

The purpose of this hypothesis was to see if social role knowledge had the effect of mitigating the effect of age on the ASCCS of the children in all the age groups.

To this purpose the following analytical procedures were used:

1. A Factorial ANOVA was run to see if there were significant differences between the high and low scores on the SRKS for the different age groups.

2. If there was a significant result from the Factorial ANOVA, post hoc tests were carried out to see where the significant differences lay and to compare actual mean scores on the SRKS for all age groups.

5.3.7.1 H5 for the Social Role of Dentist

1. Factorial ANOVA results are shown in Table 5.31 below.

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F</th>
<th>Significance Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5</td>
<td>74.614</td>
<td>14.92</td>
<td>6.90</td>
<td>0.0001</td>
</tr>
<tr>
<td>SRKSD</td>
<td>11</td>
<td>92.151</td>
<td>8.37</td>
<td>3.81</td>
<td>0.0001</td>
</tr>
<tr>
<td>Age*SRKSD</td>
<td>28</td>
<td>48.63</td>
<td>1.73</td>
<td>0.80</td>
<td>0.7451</td>
</tr>
<tr>
<td>Error</td>
<td>130</td>
<td>281.28</td>
<td>2.16</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results of the Factorial ANOVA show that the SRKSD was of significant importance and needed to be investigated further.

3. Post hoc tests were run on subsets of the data set in age cohorts - the pre-operational, the early concrete operational and the late concrete operational. A median split based on high SRKSD (8-15) and low SRKSD (0-7). The Post hoc tests for the pre-operational group of children based on the median split between the high and low scores, showed that there was a clear difference between those children who scored high SRKSDs and those that scored low SRKSDs. The difference between the high SRKSD scorers and the low SRKSD scorers was significant. The means were as follows: Low on the SRKSD (0-7) was only = .19 and High on the SRKSD (8-15) was 3.00.

For the Early Concrete operational group of children the differences between the high scorers and the low scorers on the SRKSD was not significant.

In the oldest group of Late Concrete operational group of children also showed no significant differences between the high and low scorers on the SRKSD.
Thus the Post Hoc tests do not support the hypothesis that high social role familiarity is directly related to high scores on ASCCSD. While this does seem to be true for the pre-operational group of children, where there were significant differences between the high and low scores on the SRKSD and the ASCCSD (i.e., those with high SRKSDs seemed to score high ASCCSDs); it was not true for the two older groups and therefore the Hypothesis 5 is not supported.

5.3.7.2 H5 for the Social Role of Teacher

H5 for the social role of teacher was tested for using the same analytical steps as for the social role of dentist.

1. The Factorial ANOVA run on age and SRKST for ASCCST showed that there was a significant difference between the age groups on their ASCCST and that there was a significant difference between the SRKST groups on their ASCCST. The interaction effect of both age and SRKST on ASCCST was weak (refer Table 5.32).

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5</td>
<td>138.01</td>
<td>27.60</td>
<td>21.43</td>
<td>0.0001</td>
</tr>
<tr>
<td>SRKST</td>
<td>11</td>
<td>64.81</td>
<td>5.89</td>
<td>4.57</td>
<td>0.0001</td>
</tr>
<tr>
<td>Age*SRKST</td>
<td>35</td>
<td>88.42</td>
<td>2.52</td>
<td>1.96</td>
<td>0.0038</td>
</tr>
<tr>
<td>Error</td>
<td>123</td>
<td>158.41</td>
<td>1.28</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 5.32: Results of the Factorial ANOVA on Age and SRKST for ASCCST
2. Post hoc tests were run for each of age sub groups. The results of these tests showed that except for the pre-operational children, there was no significant differences between those who scored high scores (8-15) on The SRKST and those who scored low (0-7) on the SRKST.

For the Pre-operational group of children there appeared to be significant differences between those who scored high on the SRKST and those who scored low on the SRKST. The means on those who scored high (8-15) SRKST = 3.33 and the means of those who scored low (0-7) = .234.

For the Early Concrete operational group of children, this was not the case. There appeared to be no significant differences between those who scored high and those who scored low on the SRKST.

Similarly for the oldest group, the late Concrete operational the differences between the high and the low scorers on the SRKST was not significant.

Thus for the social role of the teacher, social role familiarity did not seem to be directly related to the ASCCST scores. It is interesting however to note that the differences between the high and low scorers
among the pre-operational groups for both social roles of the dentist and the teacher showed clear significant differences.

Overall however since the two older groups showed no significant differences between the high and low scorers, Hypothesis 5 for the social role of the teacher is not supported.

5.3.7.3 H5 for the Social Role of Garbage Collector

The steps followed for the analyses of the data for this social role were the same as for both social roles of the dentist and the teacher.

1. The Factorial ANOVA was run to see if there was a significant difference between the groups on SRKSGC on their ASCCSSGC and between the age groups on their ASCCSSGC. The results of the Factorial ANOVA are seen in Table 5.33.

Table 5.33: Factorial ANOVA Results for Age and SRKSGC on ASCCSSGC

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Squares</th>
<th>F Value</th>
<th>P &gt; F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>5</td>
<td>28.061</td>
<td>5.612</td>
<td>6.48</td>
<td>0.0001</td>
</tr>
<tr>
<td>SRKSGC</td>
<td>8</td>
<td>12.249</td>
<td>1.531</td>
<td>1.77</td>
<td>0.0877</td>
</tr>
<tr>
<td>Age*SRKSGC</td>
<td>13</td>
<td>15.92</td>
<td>1.224</td>
<td>1.41</td>
<td>0.1589</td>
</tr>
<tr>
<td>Error</td>
<td>148</td>
<td>128.15</td>
<td>0.865</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Post hoc tests were carried out on the data for each age sub group and the mean ASCCSSGC scores were examined across the
SRKSGC scores to see if there were any differences between the high and low scorers of ASCCSCGC. The results of the post hoc tests are discussed below.

For the pre-operational group of children two clear groups emerged, with significant differences between the high and low scorers on the SRKSGC on their ASCCSCGC scores. The means of the low scorers on the SRKSGC = .667 and that of the high scorers was = 3.00.

For the early concrete operational group, this was not true. There appeared to be no significant differences between the low and high SRKSGC scores on their ASCCSCGC scores.

Similarly with the late concrete operational group of children, there appeared no significant differences between the low and high SRKSGC scorers on their ASCCSCGC scores.

It appears that as with the other two social roles, the high SRKS scores related directly to high scores on the ASCCS only among the pre-operational group. While this may itself be an interesting finding, it must be concluded that Hypothesis 5 is not supported for the social role of the garbage collector.

Overall, across the three social roles a similar pattern emerges. Among the pre-operational group of children, there appears to be a significant
and direct relation between their familiarity with a social role and the ability to describe alternative/non-stereotypical consumption constellations. However such social role familiarity does not seem to be as critical to the ability of older children to describe alternative/non-stereotypical consumption constellations. This finding further strengthens the hypothesis that age is stronger than social role familiarity as an explanatory variable for Alternative/non-stereotypical consumption constellations.
### Summary of Results for H5

**Hypothesis 5**: Social roles: Children of all three age groups with high SRKS will provide more ASCCS than Children with low SRKS.

<table>
<thead>
<tr>
<th>H5 for Social Role Of Dentist</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Factorial ANOVA</td>
<td>Significant effect.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td>Weak interaction effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No groupings of ASCCSD based SRKSD (excepting among the pre-operational group).</td>
</tr>
</tbody>
</table>

**Conclusion**: H5 for the social role of the dentist is not supported.

<table>
<thead>
<tr>
<th>H5 for Social Role Of Teacher</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Factorial ANOVA</td>
<td>Significant effect.</td>
</tr>
<tr>
<td></td>
<td>2. Post hoc tests</td>
<td>Weak interaction effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No groupings of ASCCSD based SRKSD.</td>
</tr>
</tbody>
</table>

**Conclusion**: H5 for the social role of teacher is not supported.

<table>
<thead>
<tr>
<th>H5 for Social Role Of Garbage Collector</th>
<th>Analyses</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1. Factorial ANOVA</td>
<td>Significant effect.</td>
</tr>
<tr>
<td></td>
<td>2. Post-hoc tests</td>
<td>Weak interaction effect.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>No groupings of ASCCSD based SRKSGC.</td>
</tr>
</tbody>
</table>

**Conclusion**: H5 for the social role of garbage collector is not supported.
5.3 SUMMARY

This chapter has presented the results of the research study. This was done in three sections. In the first section descriptive and summary statistics were presented. In the second section validity and reliability tests of the measures were described and the results presented. In the third section the results of the various analyses used to address the hypotheses were presented. The results for each of the hypotheses were summarised. The next chapter will discuss the implications of these results and also categorise the differences between the three age groups on their recognition and use of stereotypical consumption constellations. Possible applications of this research and suggestions for future research are also discussed.
CHAPTER 6: DISCUSSION AND CONCLUSIONS

6.1 INTRODUCTION

This final chapter discusses the results of the study addressing each of the four research questions stated in Chapter 3. The Academic and practitioner contributions of the research are also discussed and the limitations of the study are identified. Finally possible avenues for future research are suggested and a summary presented.

6.2 SUMMARY AND DISCUSSION OF RESULTS

This section summarises the results which were presented in Chapter five. The results will be discussed in the following sections by addressing the research questions from Chapter 3.

6.2.1 Research Question 1: Can children below the age of seven (pre-operational cognitive developmental stage) accurately identify stereotypical consumption constellations?

This research question was specifically addressed by Hypothesis 1 and Hypothesis 1a. The hypothesis was tested for each of the three occupational roles- the Dentist, the Teacher and the Garbage Collector.
6.2.1.1 Research Question 1 for the Occupational Role of Dentist

Pre-operational children can identify accurately the stereotypical consumption constellations ‘belonging’ to the role of ‘dentist’. Following the significant effect of age in the ANCOVA procedures, the post hoc tests show that the SCCSD mean scores for the five and six year olds were not significantly greater than chance (this was calculated taking the probability of picking the correct match by chance at 2.02). This showed that for the occupational role of dentist, pre-operational children in this study were not able to accurately identify the consumption constellation belonging to the role. It must be noted that pre-operational children in this study were also unable to describe any Alternative Stereotypical Consumption Constellations (ASCCs). This aspect was addressed by Hypothesis H1a, which tested the ability of the pre-operational children to describe alternative non-stereotypical consumption constellations (ASCCS). The mean score for the group on the ASCCSD was not significantly greater than chance.

Thus for the pre-operational group of children, for the occupational role of dentist, the research question one is answered in the negative.
6.2.1.2 Research Question 1 for the Occupational Role of Teacher

For this social role the effect of age was not significant and the ANCOVA showed no significant differences between the age-groups with the mean scores for the pre-operational children not significantly greater than by random allocation (calculated at 2.02). This indicated that they were unable to consistently identify the 'correct' stereotypical consumption constellation. Again Hypothesis H1a confirmed that this age-group of children were unable to describe ASCC for the role of Teacher. Thus for this occupational role, neither the identification of the correct SCCS nor the describing of ASCCS were consistently above random allocation for this group of children.

6.2.1.3 Research Question 1 for Occupational Role of Garbage Collector

For this occupational group it was clearly seen that pre-operational children could identify the stereotypical consumption constellation related to his occupational role. The mean scores for the five and six year olds were significantly above that of chance. Thus it can be concluded that for this role, there exists a common consumption stereotype (consumption constellation) that even pre-operational children have been socialised to recognise. Hypothesis 1a was also confirmed showing the mean scores for the dependent variable ASCCSSGC among the pre-operational group being well below one. Thus it can be concluded that while pre-operational children in this study can recognise the stereotypical consumption constellation 'belonging' to this occupational group, they are still unable to
describe Alternative non-Stereotypical Consumption Constellations (ASCCs) for this role.

6.2.1.4 Discussion

In terms of the Research Question 1, it can be seen that children in the pre-operational age-group can identify the stereotypical consumption constellation relating to at least one occupational group while not for others. Of the three occupations, that of the school teacher, it may be argued has the greatest familiarity for the subjects (being schoolchildren). This may explain why the children were less able to identify one consumption constellation as being more typical of the role than others. However, consistency is seen in the scores of pre-operational children with regard to the ASCCS for all three roles. The children showed ASCCS well below 1. This finding is quite different from that of the Belk et al (1982) study which showed very inconclusive results with pre-operational children in making inferences about owners from pictures of products. However, that study used schoolchildren with the mean age of 4.9 years as compared to this study which used a 5-6 age cohort with an average age of 5.7 years. The stimuli used were also different in this study. The Belk et al (1982) used only two products (houses and cars) in paired comparisons rather than a group or constellation of products that was used in this study. Additionally, owner picture cues were used in this study while this was not done in the Belk et al study.
6.2.2 Research Question 2: Do older children (early and late concrete operational children) more accurately identify the stereotypical consumption constellations and describe more alternative non-stereotypical consumption constellations than children in the pre-operational group?

This research question was addressed by the results of H2, H3, H4 and H4a specifically. The results with regard to this research question will be addressed in two sections. The first section discusses the late concrete operational group and the other section discusses the early concrete operational group.

6.2.2.1 Early Concrete Operational Group

This group of children displayed SCCS scores for the occupational roles of dentist and teacher that were not significantly higher than that of the pre-operational children. Only in the case of the occupational role of the garbage collector was H2 supported. It would appear that for this role where overall role familiarity was the least (going by the mean SRKSGC scores), the stereotypes appeared to be recognised and used by the children. This early concrete operational group of children did however score consistently higher mean scores on the ASCCS for all three occupational roles than the pre-operational group. Their mean ASCCS scores for all three occupations were significantly greater than one (Hypothesis 4).

Thus, it may be concluded that the recognition and use of the stereotypical consumption constellation by this group is stronger when general
familiarity with the role is the least. This age-group however clearly
describe and provide more than one ASCCS for all three occupational roles
consistently, which the pre-operational group showed ASCCS consistently
below one (indicating that they were unable to describe even one
alternative non-stereotypical consumption constellation).

6.2.2.2 The Late Concrete Operational Group

The hypotheses that address this part of the research question 2 are H3 and
H4a specifically. As with the early concrete operational age-group, H3
was supported only for the occupational role of garbage collector. While
for the role of the dentist, SCCS scores were higher than that of the pre-
operational group, they were not higher than that of the early concrete
operational group. Thus it may be concluded that the tendency to resort to
using the stereotypical consumption constellation appears to occur with
both these age-groups for the occupational role that they are least familiar
with (lowest mean scores for SRKS for a occupational group across that
age group)

The ASCCS scores were consistently higher for this age-group for each of
the three occupational roles than either the pre-operational group or the
early concrete operational group. In general therefore, it may seem that the
2 older groups of children recognise and use the stereotypical consumption
constellations for occupational roles with which their general familiarity is
greater. However the ASCCS for all occupational roles increases
consistently with age showing the ability to move away from the stereotype increasing with their experience with the social world.

6.2.3 Research Question 3: Can the Piagetian (Piaget 1970) developmental stages be used as a basis for explaining the differences in the identification and understanding of such stereotypical consumption constellations between these three age groups of children?

This research question encompasses the summary of all 5 hypotheses addressed by this study. It is therefore best answered by drawing together the summary of results in a cognitive developmental stage based model.

6.2.3.1 A Piagetian Framework for the recognition and use of stereotypical consumption constellations among three cognitive developmental stages

6.2.3.1.1 The Pre-Operational Age Group (five and six year olds)

This group of children can recognise, identify and match stereotypical consumption constellations to an occupational cue. With the occupation that the children had an overall greater familiarity with (i.e. the teacher where overall score for this age group on the SRKST was higher than for the other two occupations), the tendency to pick the stereotypical consumption constellation was less than for the other two occupational roles. There is not, among this group of children any consistent ability to describe alternative/non-stereotypical
consumption constellations for any of the three occupations. These results appear to be consistent with Piagetian cognitive abilities for this age-group. While this inability to recognise Alternative/non-stereotypical consumption constellations is consistent with the Piagetian framework, the results in this group with regard to the recognition of the Stereotypical Consumption Constellations is not consistent with that of the Piagetian stages. It was found that for at least one occupational cue (the garbage collector) the children in this age-group, could identify the ‘correct’ stereotypical consumption constellation at a rate higher than chance. Piagetian cognitive stages suggest that children in the pre-operational stage are incapable of understanding abstract social concepts such as stereotypes. This limitation of cognitive ability in children described by Piaget (1970) has been countered by research in categorisation studies (Markman and Callanan 1983; Markman and Hutchinson 1984) which suggest that children as young as 3 years old can correctly categorise objects. Perrachio (1990) suggests that task design issues may indeed conceal some of the true abilities of young children. This may explain the inconclusive results of some of the earlier consumption symbolism studies (e.g. Belk et al 1984) with regard to this pre-operational group of children.
In summary, pre-operational children can correctly identify stereotypical consumption constellations for at least one occupation but cannot describe alternative/non-stereotypical consumption constellations for any of the occupational cues used.

6.2.3.1.2 The Early Concrete Operational Group (eight and nine year olds)

This group showed greater accuracy in the recognition of the stereotypical consumption for occupational roles. There appeared a greater than chance level of accuracy in identifying the stereotypical consumption constellations for all three occupational cues. This appears to be consistent with the Piagetian framework which argues that emergence of the ability to understand complex abstract social concepts occurs in this age-group.

With regard to their ability to describe alternative/non-stereotypical consumption constellations, this group could consistently, for all three occupational cues describe alternative/non-stereotypical consumption constellations. This ability distinctly differentiated this group from the pre-operational group of children. The difference in this regard was clear and unambiguous. This result therefore was in keeping
with results from earlier research (Belk 1982) which suggest that the tendency to make stereotypical consumption inferences about owners reduces somewhat with increasing age (and increasing direct experiential socialisation).

6.2.3.1.3 The Late Concrete Operational Age Group (eleven and twelve year olds)

The eleven and twelve year olds showed the greatest accuracy in identifying the correct stereotypical consumption constellation. Their mean scores on the SCCS were higher than either the pre-operational or early-operational group of children and consistently over all the three occupational roles. In their ability to describe Alternative/non-stereotypical consumption constellations too, this group of children showed the highest mean scores among the three age groups.

Overall two clear findings need to be emphasised. The first finding is that in recognising the stereotypical consumption constellations, the pre-operational group of children appeared to depart from the established Piagetian cognitive abilities, appearing to be able to identify stereotypical consumption constellations accurately for at least one occupational role.

The second issue is with regard to the describing of alternative/non-stereotypical consumption constellations by the
three groups. Clearly the pre-operational group were unable to
describe with any significance, alternative/non-stereotypical
consumption constellations. The ability to describe these non-
stereotypical consumption constellations increases with age.
These findings are consistent with Piagetian findings and with
that of earlier consumption stereotyping studies. The familiarity
of the younger children (pre-operational) with members of the
occupations did not appear to moderate this ability. Therefore it
must be concluded that the age/cognitive developmental stage
differences are a stronger explanatory variable for both
children’s ability to identify stereotypical consumption
constellations and describe alternative/non-stereotypical
consumption constellations than familiarity with the
occupational role.

6.2.4 Research Question 4: Will social/occupational role familiarity increase
children’s understanding of non-stereotypical/alternative consumption
constellations regardless of age?

This research question was addressed specifically by H5. The Social Role
familiarity scale was used to arrive at the Social Role Familiarity Score (SRKS).
This was done for each subject for each of the three social/occupational roles. It was
hypothesised that direct experiential socialisation i.e. knowing or being familiar
with members of a social/occupational role should act as a moderating variable in
the child’s ability to describe alternate/non-stereotypical consumption
constellations. However this was not supported for any of the three occupational roles. It would appear from the results that age/cognitive developmental stage is a stronger explanatory variable than social/occupational role familiarity for all the three age groups.

The following tables summarise the results across the three age-groups and their abilities.

Abbreviations for Tables 6.1, 6.2, and 6.3:

- SCC: Stereotypical Consumption Constellation
- SCCS: Stereotypical Consumption Constellation Score.
- ASCC: Alternative/Non-stereotypical Consumption Constellations
- ASCCS: Alternative/Non-stereotypical Consumption Constellation Score
- SRKS: Social Role Familiarity Score.

**Table 6.1. Pre-Operational: Summary of Results**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC</td>
<td>Can accurately (at a rate better than chance) for one of the three occupational roles, not for the others</td>
</tr>
<tr>
<td>ASCC</td>
<td>Cannot describe ASCC.</td>
</tr>
<tr>
<td>SRKS</td>
<td>Occupational role familiarity does not act as a moderator variable for SCC.</td>
</tr>
</tbody>
</table>
Table 6.2: Early Concrete Operational: Summary of Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC</td>
<td>Can identify at a level greater than chance and with mean scores higher than the pre-operational children for all occupational roles.</td>
</tr>
<tr>
<td>ASCC</td>
<td>Can describe ASCC for all three occupational roles, especially where familiar with role members.</td>
</tr>
<tr>
<td>SRKS</td>
<td>Does not seem to moderate SCCS, but appears to be positively related to ASCCS.</td>
</tr>
</tbody>
</table>

Table 6.3: Late Concrete Operational: Summary of Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC</td>
<td>Showed the greatest accuracy in identifying (of the three age groups).</td>
</tr>
<tr>
<td>ASCC</td>
<td>Showed the highest scores on ASCCS.</td>
</tr>
<tr>
<td>SRKS</td>
<td>Did not seem to moderate the SCCS in this group. Seemed to act as a moderator on the ASCCS for this group.</td>
</tr>
</tbody>
</table>

6.2.5 General Discussion

The overall results that have been the outcome of this study are consistent with the general Piagetian stages in the way children in these three age-groups recognise stereotypical consumption constellations. In the framework of consumer socialisation that she proposes, John (1999) reaffirms the Piagetian basis for the acquisition of consumer learning. She describe three main stages which she names the Perceptual (ages 3-7), the Analytical (ages 7-11) and the Reflective (ages 11-16).
These categories are very similar to the stages that the results of this study reveal with a few exceptions.

This study shows that some 'fuzziness' or ambiguity exists around the boundaries of a Piagetian stage model for children's recognition of consumption constellations. While the pre-operational children are not as competent as the older children in the accuracy with which they identify the stereotypical consumption constellations, they can (contrary to the Piagetian based model of consumer socialisation) identify such constellations for some occupational categories.

This is therefore important as a starting point for further study. Seven is an important 'turning point' for most consumer learning (in the cognitive developmental sense). This however, does not appear to hold true in the case of recognition of consumption constellations. The reasons for this atypical pattern needs to be explored. One important issue that needs to be raised is whether other factors need to be considered. Is the consumer socialisation process starting earlier, are children being exposed to indirect socialisation agents (peers at pre-school, earlier television exposure etc.) earlier than traditionally believed? Simply posed, are children today participating in commercial consumption at a much earlier age than twenty five years ago?. The interpretation of the results of this research is not to question the Piagetian framework or its basic assumptions, but to ask if the boundaries with regard to the learning of consumption symbolism are indeed shifting, with some stages beginning earlier than previously thought due to the earlier influence of socialisation agents in a child's life.
6.2.6 *Academic Contributions*

This study makes four major contributions not previously made by studies in consumption symbolism or consumer socialisation.

First, the use of a very young child sample in studying consumption constellations is unique. Adult samples have been used in studies by researchers (Solomon 1988, Solomon & Buchanan 1991) in studying consumption constellations. Other researchers have used child samples in the study of the symbolic aspects of consumption. However, between these two sub-areas of consumer socialisation lies a research gap that this study specifically addresses. This research makes a specific contribution in terms of using a child sample to study the recognition of consumption constellations (as a part of consumption stereotyping) and the differences in such recognition across three age groups.

Second, this research uses groups of products/brands as stimuli. In their seminal study in consumption stereotyping among children, Belk et al (1982) used pictures of single products to evoke stereotypical inferences from children. However, Belk et al (1982) define consumption stereotyping as “the tendency to make inferences about others based on their choice of consumption objects”, implying that multiple consumption objects were necessary for such inferences to be made. McCracken (1988) also suggests the need for this multiplicity. According to him, within a complement of goods, there exists enough redundancy to allow the observer to decipher the object code that helps categorise the user into a particular
cultural/social category. Fiske (1982) uses an example to illustrate his point “somebody who wears tweed, drives a small, cheap foreign car, is introverted, forgetful and smart” (p.6). In this description of a ‘professor’ Fiske showed the need for multiple product/consumption descriptors to activate a stereotype which helps the observer categorise the owner. Thus this research makes a significant contribution in using a consumption stereotype consisting of multiple products/brands, which is clearly suggested in the literature, but has not been addressed until now. This is the second contribution of this research.

The third contribution is in task design. The idea of using pictorial methods to minimise verbal instruction in studies with young children is not a new methodological idea. The method of generating a consumption constellation from a representative adult sample and using that as a basis for building a pictorial task in a familiar classroom setting however is new.

Solomon (1988) has developed such consumption constellations using adult samples but never used them on a child sample. This research takes such a methodology one step further in validating the recognition of consumption constellations among children by first generating that stereotypes from a representative sample. Belk et al (1982) use pictorial cues of products with a child sample to evoke consumption stereotyping, however that study used pictures of single products and made the implicit assumption that such products were part of a consumption stereotype. This study establishes the existence of a consumption stereotype before seeing if children do actually recognise them.
The fourth contribution this research makes is to remedy the paucity of consumer socialisation, consumption stereotyping/symbolism studies in the Australian context. Most studies of this kind especially those carried out using child samples, have been done in the North American or European contexts. While some generalisations are possible given the comparable social and commercial systems in Australia and these countries, caution must be exercised in such extrapolation. As Jahoda (1983) and Jahoda & Woerdenbagch (1982) warn the development of socio-economic concepts in children varied significantly cross nationally (Hong-Kong, Zimbabwe and Scotland) because familiarity through socialisation had a greater influence than cognitive development alone. This is even more true in studying the development of consumer socialisation concepts such as consumption stereotypes which are intrinsically culturally defined. Thus the contribution of this research in this sense is clear and significant. There is a great need to explore and compare the results of studies in this area across nations and cultures to see if the cognitive developmental frameworks are transferable.

6.2.7 Managerial Contributions

As discussed in Section 1.3.2, the managerial contributions of this research can be described by focussing on specific benefits to three different groups of practitioners.

Managerial Practitioner: The finding that 5-6 year olds can identify stereotypical consumption constellations for some occupational groups, has strategic implications for managerial practitioners.
First, in the planning of multiple brand/product promotions, these findings could help in effectively using existing inter-brand associations and stereotypical groupings that children in these age-groups already have and recognise.

Second, in the planning of multiple-brand advertising too, these findings can be of use. They could help in the optimal execution of the advertisements and the contextual settings of product and services aimed at not only children’s products, but adult products for which children are influencers. In testing of advertising too, the study results could have applications. The identification of stereotypical groupings of brands can help advertisers and marketers choose the ‘correct’ stereotypical consumption constellation to appeal to a particular target audience. This is intuitively used by some retailers in merchandising, by picking ‘lifestyle stories’ that match their market segments in setting up window displays and store display themes. In addition, methodological implications exist for qualitative research design for marketers and advertisers working with young children.

Overall, the understanding of when children begin to recognise and understand consumption stereotypes can be the basis for planning and building more enduring brand associations within the child consumer market. This is a significant group since they form a potential future adult market as well as being current consumers in their own right and influencers in adult consumption decisions (McNeal 1992).
The Educational Practitioner: This group of practitioners could also benefit from the findings of this study. In the planning of media education curricula, the findings of this study could be of use. The knowledge that five-six year olds can recognise some stereotypical consumption constellations can help educators more effectively teach the purpose and intent of advertising to children.

The Policy Maker: The public policy debates of the past three decades in North America and in Australia have been based on research which looked to find out when and how consumer socialisation with regard to the intent and purpose as well as the content of advertising took place. However, as John (1999) has pointed out there is still a lot to be done in this area. She also suggests that “cultural changes, such as the growth of single-parent families, and technological changes, such as the internet suggest the need to revisit existing findings about socialisation and address new concerns”.

The findings from this research points to some changes that have taken place in the socialisation of children. It is clear that the recognition of consumption constellations occurs within the context of this study at a younger age than the traditional Piagetian stages suggest. This may simply be due to the increasingly early age at which the consumer socialisation process starts for children in our society. For public policy makers it is therefore imperative that research such as this, monitors these changes so that effective and relevant legislation is passed to protect the interests of children as consumers.
6.2.8 Limitations

The limitations of this research are several. Most of these limitations are common to consumer behaviour research that uses child samples. The limitations can be discussed under two broad headings. The first are those limitations occurring as a result of the sample used. The second are those arising out of the particular methodology employed. Each of these will be discussed in turn.

6.2.8.1 Sample Limitations

There are three limitations arising from the sample used. The first limitation is one of self-selection bias. This was because of the ethical considerations arising from the use of child subjects in research. Written permission to gain access to the child subjects needed to be obtained from the University of Wollongong Human Research Ethics Committee, the New South Wales State Department of Education, The Catholic Board of Education for the Illawarra region, the individual school principals, individual parents, and each child who was old enough to read and write. Thus, only schools that gave permission, children whose parents gave permission for them to participate and the children who signed individual consent forms could be included in the final sample. This self-selection is therefore a limitation in the design of the research.

The second limitation arising from the sample is the relatively small size of the sample. Again since the questions and the matching task were
administered one-on-one, due to time and resource constraints, this number was necessarily small. This can be seen as a limitation to the generalisability of the study results.

The third limitation of the sample is the regional aspect of the sampling. The sample included only schools in the Illawarra region of New South Wales, Australia. This makes generalisability of the results inappropriate even to a national population.

6.2.8.2 Methodological Limitations

The first limitation here, arises from the method used in generating the stereotypical consumption constellations.

The adult sample used to generate these stereotypical consumption constellations was small though representative of the population. The size of the sample may affect the generalisability of the results.

The cultural context in which the stereotypical consumption constellations were generated, was local. This again makes generalisability difficult.

The product categories used were only four in number. A greater number of product categories may have created fuller and more complete stereotypical complements. This was the number used by Solomon (1988) and therefore four product categories were seen as sufficient to describe a stereotypical
consumption constellation. However, it may have been more useful to use a free, open-ended generation task by which to build the stereotypical consumption constellations. The four product categories were chosen ahead of the generation of stereotypical brands for each of the product categories, rather than generating the product category and then the brands within the category. The method of building these stereotypical consumption constellations may have been better achieved by using an open-ended free generation task.

Only three occupational cues were used, this could limit generalisability of results to other occupational roles.

The second methodological limitations arose from the measurement instruments and variables used.

The Social Role Familiarity Scale, while pre-tested with a child sample was originally developed and validated by Solomon (1988) for an adult sample. This scale contained questions relating to time and used words such as ‘weekly’, ‘monthly’. While each question was carefully explained to each child and the researcher ensured they had understood the question, differential comprehension could have created a bias.

The second dependent variable Alternative Non-stereotypical Consumption Constellation Score (ASCCS), used verbal content in the instructions to the
children and this may have created a bias in favour of older children with better comprehension levels.

Overall, the main limitation of this research lies in the lack of generalisability of its results. This is however mostly a factor of the subject under study. Stereotypes of any kind, especially those related to consumption, acquire symbolic significance only within the specific cultural context they operate in. This study is not therefore generalisable across other cultural contexts. It does however provide a methodological starting point, which creates opportunity for replication and extension.

6.2.9 Proposals for Future Research

Further research can be proposed in three main areas. Each of these will be discussed in turn.

The first area where further research can be proposed is in longitudinal research. This is necessary and useful for two reasons. First, as Balthes and Nasselroade (1979) suggest, the monitoring of interindividual similarity and differences in intraindividual changes is one of the five rationale they list for longitudinal research. If consumer learning is being studied using a cognitive developmental framework, then longitudinal research is the ideal design since it would track changes in one individual (over a period of time).
Thus longitudinal studies would be particularly useful because of the paucity of such research used with child samples in consumer behaviour. It would also be useful in confirming if children do indeed move through the different developmental stages with regard to consumption stereotyping as they grow older. The second reason why longitudinal research is necessary is because as Menard (1991) pointed out, a full resolution of the results from cross-sectional studies should ideally be validated through longitudinal replication data.

The second area where future research can be proposed is in the cross-national/cross-cultural contexts. Such replications could help confirm and validate a basic premise -that stereotypical consumption constellations exist within and in the context of a particular cultural context. It would be of particular interest to see if the Piagetian framework is applicable in the consumption stereotyping context across different cultures or if differences such as those described by Jahoda (1983), emerge.

The third area where research is possible is among new arrivals in a culture. Migrants would be a particularly interesting group to investigate in this context. Varying recognition and understanding of stereotypical consumption constellations can be expected among these groups depending on the degree of consumption socialisation to which they have been exposed in the new culture.
6.2.10 Conclusion

This thesis has provided significant contributions both academic and managerial. It builds on two existing bodies of research. A research gap between Consumption symbolism (consumption constellations) studies and research about the understanding of consumption stereotypes by children, has been bridged by this study.

This research has developed a method of generating stereotypical consumption constellations using an adult representative sample and then using it to measure the recognition of stereotypical consumption constellations among a child sample. Though the limitations of this study are acknowledged, it provides a beginning for future research into how children acquire and develop an understanding of consumption stereotypes such as stereotypical consumption constellations.
REFERENCES


Boston Ma: Harvard University Press.


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APPENDIX 1

STIMULI MATERIAL FOR THE SCCS MEASURE

SET A: Stereotypical Consumption Constellation for the Occupational Role of the Dentist

SET B: Stereotypical Consumption Constellation for the Occupational Role of the Teacher

SET C: Stereotypical Consumption Constellation for the Occupational Role of the Garbage Collector

NOTE: Both male and female occupational stimuli were used for each role. The male prompt was used for the boys and the female prompt for the girls.
APPENDIX 1:

SET A: STEREOTYPICAL CONSUMPTION CONSTELLATION FOR THE SOCIAL ROLE OF THE DENTIST
APPENDIX 1:

SET B: STEREOTYPICAL CONSUMPTION CONSTELLATION FOR THE SOCIAL ROLE OF THE TEACHER
APPENDIX 1:

SET C: STEREOTYPICAL CONSUMPTION CONSTELLATION FOR THE
SOCIAL ROLE OF THE GARBAGE COLLECTOR
Juta Juta) in Australia's heartland not far from Ayers Rock (Uluru) in the Northern Territory.
APPENDIX 2

A NOTE OF EXPLANATION FOR THE GREATER THAN
CHANCE SCORE ON THE SCCS MEASURE

The average score that a child would be expected to receive under the hypothesis of random allocation (picking the ‘right/stereotypical’ brand in each product class) is $1/3$ (there are three ‘brands’ in each product class). There are four product classes in the entire task. And therefore the average score is estimated as follows = $0.33 \times 4 = 1.32$.

(The multiplication is justified because each of the 4 product categories are allocated independently)

Under the hypothesis of random allocation the average ‘wrong’ brand score is $2/3$ in each set of 3 brands = $0.66$ or $0.7$. Therefore a score of $1.32 + 0.7 = 2.02$ was calculated to be the conservative score that could be possibly be scored by random chance. Any score above this on the SCCS task was considered to be made through considered choice.

**Therefore a score of 2.02 or greater on the SCCS task is taken to be significant.**

**The probability calculation on this can be made as follows:**

The probability of obtaining 2 or more out of 4 is given by $6\left(\frac{1}{3}\right)^2 \left(\frac{2}{3}\right)^2 + 4\left(\frac{1}{3}\right)^3 \left(\frac{2}{3}\right) + \left(\frac{1}{3}\right)^4 = 11/27$ or $0.40$

The probability of obtaining 3 or more out of 4 is given by $4\left(\frac{1}{3}\right)^3 \left(\frac{2}{3}\right) + \left(\frac{1}{3}\right)^4 = 1/9 = 0.11$

The probability of obtaining 4 out of 4 is given by $\left(\frac{1}{3}\right)^4 = 1/81 = 0.012$

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APPENDIX 3

A NOTE OF EXPLANATION ABOUT THE SIGNIFICANT SCORE ON THE ASCCS TASK

Each Alternate/Non-Stereotypical Consumption Constellation that was counted toward a score consisted of 4 brands that 'belonged' to an occupational cue. If the subject could not name an alternative 'brand' for each of the four product classes, it was not scored. Therefore, even where alternative 'brands' were suggested for one or two product classes, but not for all four; the set was not considered a complete consumption constellation.
Appendix 4: Social Role Familiarity Scale

1. Do you know any dentists, teachers or garbage collectors? YES/NO
   If yes, specify which category:
   Dentists
   Teachers (other than in your school, i.e., outside of school)
   Garbage Collectors

2. How many of these people do you know?

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Many (&gt;5)</th>
<th>Some (2-5)</th>
<th>One</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Collector</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. How well do you know them?

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Relatives</th>
<th>Family friend/ Neighbour</th>
<th>Other (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Collector</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. How often do you see them?

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Often weekly or &gt;</th>
<th>Sometimes (monthly/fortnightly)</th>
<th>Rarely (less than once a month)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Collector</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
5. Where do you visit with them?

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Both homes (mine and theirs)</th>
<th>Either home (only mine or only theirs)</th>
<th>Elsewhere (specify)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Collector</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

6. Do they talk to you about their work?  
If yes, specify how often

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Often (each time we met)</th>
<th>Sometimes (only half the number of times we met)</th>
<th>Rarely (once or twice)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dentist</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Teacher</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garbage Collector</td>
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