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Theme unit analysis: a Systemic-functional treatment of textual meanings in Japanese

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Title: **Theme unit analysis: a Systemic-functional treatment of textual meanings in Japanese**

Short Title: **Theme unit analysis**

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Abstract

According to Systemic Functional Linguistic (SFL) theory the structural shape of the clause in English is determined by the three metafunctions – ideational, interpersonal and textual (Halliday 1994:179). In Japanese, the situation is similar as far as ideational (Teruya 1998) and interpersonal (Fukui 1998) meanings are concerned. With respect to the textual metafunction, however, the situation appears to be different. Due to the presence of ellipsis, both anaphoric Subject ellipsis and formal exophoric Subject ellipsis (Hasan 1996), along with the operation of clause chaining, Japanese appears to organise textually over another kind of unit, the Theme unit. This paper will explore the Theme unit as it functions to organise discourse in Japanese, offering grammatical and semantic recognition criteria within a Systemic Functional theoretical framework. Justification for the theorisation of this textual unit will be presented together with a number of examples. In Japanese, the Theme unit is the unit within which Theme and Rheme unfold. Theme is realised by first position in the Theme unit, and the Theme unit can map onto clause simplexes, complexes, clauses within a complex and across sentences (in written texts). The paper will conclude with a discussion of the function of the Theme unit and the nature or status of the Theme unit within the SFL model of language, arguing that the notion is possibly applicable to the analyses of other languages, including English.

1 Introduction

The purpose of this paper is threefold. Firstly, it will present an argument for the presence of a textual unit in Japanese which does not necessarily conflate with the clause. This claim is supported by the fact that other researchers in Systemic Functional Linguistics (SFL) have also found it useful to postulate the notion of a 'larger' unit in the grammar of languages other than English, particularly when considering the textual patterns of organisation within texts (see, for example, Caffarel 2000; Fang, McDonald and Cheng 1995; Martin 1993). The claim is further justified by the operation of two grammatical features of Japanese, ellipsis and clause chaining. The following section of this paper therefore includes a discussion of the system of Theme, its characteristics and its realisation in Japanese. Included in this discussion is a description of the nature of ellipsis and clause chaining and the way in which these grammatical features impact on the span of operation of Theme. Exemplification of this phenomenon will lead into the second purpose of this paper which is to present a definition of the proposed textual unit, the Theme unit, providing both grammatical and semantic recognition criteria as part of the definition. Finally, and from a theoretical perspective, a discussion of the location of the Theme unit in SFL theory will be presented.

2 Arguing for the presence of a textual unit in Japanese

2.1 Research on the notion of a larger textual unit

Researchers looking at a range of languages have found the notion of a textual unit larger than the clause useful in their analyses. Daneš, for example, has stated that the grammar of discourse may occur within the domain of the clause, but 'with certain modifications, beyond the domain of the clause as well" (1974: 106). Clearly,

theorising a unit on the rank scale above the clause is not a new development. Halliday has asserted that thematic organisation occurs throughout the ranks of the language system at levels below and above the clause (1994: 54). Further, other studies have shown that Theme can span the clause complex, sentences, paragraphs and texts (see Caffarel 2000; Fang, McDonald and Cheng 1995; Martin 1993; Matthiessen 1995a; Cloran 1995; Fries 1995).

Fries, in his work on English, identified a textual unit above the clause to facilitate his study of the thematic patterns operating in text:

> In my work on Theme I have found it useful to deal with a unit slightly larger than clause, but smaller than sentence. It consists of an independent clause together with all hypotactically related clauses and words that are dependent on that independent clause. I have coined it an independent conjoinable clause complex (Fries 1995: 49).

Similarly, Cloran (1995) suggests that, at the semantic stratum, a rank scale of three units may be identified: text, rhetorical unit and message, such that a text consists of one or more rhetorical units which, in turn, consist of one or more messages. She further suggests that the relationship between the rhetorical units constituting a text may be determined by considering patterns of thematic progression at the level of these units. In addition, Fang, McDonald and Cheng (1995) postulate that clauses in Chinese cluster textually, suggesting that patterns of thematic progression within and across clause complexes point to the presence of a textual unit which is larger than the clause. Finally, Caffarel shows that, in French, Theme within a clause complex has as bi-layered structure: "one at clause complex level, the other within each clause" (2000: 252).

2.2 The system of Theme

The above discussion indicates that textual organisation may map onto a unit larger than the clause. Yet in English the three metafunctions are taken as primarily mapping onto

the unit of clause (Halliday 1994: 179). In ideational terms, the clause is viewed as a representation of the world; in interpersonal terms, the clause is viewed as an exchange between interactants; and in textual terms, the clause is viewed as the message. The message, however, need not be realisationally limited to the span of the clause. In Japanese, or for that matter in other languages, it is important to look at clausal patterns of organisation to determine whether or not the clause is the unit onto which textual meanings, particularly the system of Theme, are mapped. In English, the system of Theme is realised by first position in the clause (Halliday 1994: 38). But it does not follow that this must be the case in Japanese. It should not be assumed that the clause is the unit onto which Theme is mapped, nor should it be assumed that Theme is realised by the constituent positioned first in the clause.

Understanding the realisation of Theme in Japanese requires a study of the patterns of organisation evident in Japanese and an investigation into whether or not these patterns of organisation correlate with the realisation of Theme.

2.2.1 Characteristics of Theme

To begin to understand Theme in Japanese, two significant theoretical characteristics of the notion of Theme in SFL theory need to be considered: Theme is periodic and fractal in nature (see Halliday 1979; Matthiessen 1995b).

Theoretically, the textual metafunction utilises a syntagmatic structure of periodic peaks of prominence. Peaks of thematic prominence and newsworthy prominence serve to organise the discourse into message units with the thematic peak signalling what it is that the speaker is concerned with, and with the newsworthy peak signalling what new information the hearer needs to attend to (Halliday 1979: 68). This produces a wave-like structure. In English, the thematic peak occurs clause initially,

while the newsworthy peak occurs on the tonic syllable of the information unit, the unmarked realisation of which typically conflates with the clause (Halliday 1994: 295). The tonic syllable is usually found towards the end of the clause. Thus there is typically a peak of thematic prominence at the beginning of the clause and a peak of newsworthy prominence at the end of the clause in English.

Further, the system of Theme is recognised as a fractal category – one which manifests in different ranking environments (Matthiessen 1995b: 90). This implies that there are thematic peaks of prominence in other units on the rank scale such as the group. Given the fact that Theme is fractal and has periodic peaks of prominence or a wave-like realisation, it should not be assumed that the clause is the prototypical unit.

If the possibility is admitted that textual meanings may be fractal, then units larger and, indeed, smaller than the clause may participate in the construal of textual meanings. Further, the wave-like structure of Theme opens up the possibility that thematic prominence may perhaps move through the texts in 'sets' or units of its own making rather than via the clause. In the case of newsworthiness in English, the peaks of newsworthiness move through the text in 'sets' of information units, which, as previously stated, can, but do not always, map onto the clause.

2.2.2 Theme in Japanese

Clues to identifying clausal patterns which correlate with the organisation of text are to be found in some of the grammatical patterns of Japanese. The following discussion presents two characteristics which impact on clause organisation: 1) the unmarked, clause-final positioning of the verbal group, and 2) the unfixed order of the nuclear and non-nuclear participants in the clause.[1]

Shibatani (1990: 257) describes the Japanese clause as an SOV (Subject-Object-Verb) type structure in which the verb typically occurs clause-finally. In the clause, *Sono hoka ni wa donna mono-oto mo nakatta* ('Other than that, there was also no other sound'), *nakatta* ('did not exist') is the verbal group functioning as process in the clause simplex and is positioned last.

Secondly, the nuclear participants, the non-nuclear participants of the verb and circumstances are typically located to the left of the verb. In the above example, *sono hoka ni wa* ('other than that') and *donna mono-oto mo* ('other sound') appear in this position and function respectively as the circumstance and nuclear participant of the verb. Provided that they remain to the left of the verb, the order of the participants, whether they be nuclear or non-nuclear, is not fixed.

> Japanese is usually said to have a free word order with respect to the adjuncts. This means that so long as you put the predicate (the nuclear sentence) at the end, where it belongs in a well-planned sentence, you are free to present each of the build-up phrases early or late as you see fit ... thematisation, for example, will place an adjunct at the beginning of the sentence (Martin 1988: 35).

This unfixed ordering of the various constituent roles to the left of the verb sets up a natural environment for establishing instantial ideational systems (Matthiessen 1995a), that is, the node of an instantial ideational system is selected from one of the constituent roles, either participant or circumstance. It is from this node that the text develops or expands. Thus the order matters. These nodes are points of departure; they are the Themes of the clause. In Japanese, this environment appears to centre around the start, rather than the end of the clause, as the speaker/writer has a choice of what to position first in the clause. In the case of the example above, the writer clearly chose the ordering of circumstance, *sono hoka ni wa* ('other than that') followed by participant, *donna*

mono-oto mo ('other sound'), rather than participant followed by circumstance, which is of course possible. The choice is not unmotivated in Halliday's view,

> Systemic theory is a theory of choice, by which a language, or any other semiotic system, is interpreted as networks of interlocking options (Halliday 1994:xiv).

If there is a choice in positioning constituents within a clause, then that choice must be motivated by something. Matthiessen (1995a: 27) suggests that the Theme guides the exchange of meaning by assigning value to a particular ideational constituent, or node, which is perceived as a point of expansion for the meaning of the text. In other words, the Theme guides the creation of ideational instantial systems. The fact that there is a choice in ordering the constituents to the left of the process in Japanese suggests that first position is in fact salient. Putting a constituent first assigns a certain value to it; that is, it foregrounds the constituent as a signpost of textual organisation.

These two features of Japanese – the constraint on the constituent that can appear in clause-final position and the 'free' ordering of pre-clause-final constituents – suggest that Theme is a system of meaning within the textual metafunction of Japanese and may indeed be instantiated through a choice in constituent ordering, particularly the choice of what to position first in the clause. Support for this assertion is to be found in Halliday's argument that:

> if in any given language the message is organised as a Theme-Rheme structure, and if this structure is expressed by the sequence in which the elements occur in the clause, then it seems natural that the position for the Theme should be at the beginning, rather than at the end or at some other specific point (Halliday 1994: 38).

Thus the task is to look for patterns of textual organisation, and, given the above discussion, these patterns are likely to appear clause-initially. In other words, Theme in Japanese may be realised by first position in the clause.

However, there is a problem with limiting the textual span of operation to that of the unit of clause: doing so ignores two further characteristics of Japanese which impact significantly on textual coherence. These two characteristics are the operation of ellipsis and clause chaining. It is the implicit device of ellipsis in conjunction with the resources of complexing, particularly clause chaining, which jointly create a linguistic environment out of which the Theme unit arises as a natural 'unit' of textual organisation. Textual meanings appear to map onto chunks of text equivalent to, but also larger and, indeed, shorter than, the clause. Ellipsis acts as a form of structural cohesion, establishing links between clause fragments, clauses, 'chained' clause complexes and across sentence boundaries. It is to these two characteristics that the discussion now turns.

2.3 Ellipsis as an implicit device

Hasan (1996) in a discussion of implicit and explicit semantic styles suggests a taxonomy of implicitness which addresses the different kinds of ellipsis in language. An implicit device is "an encoding unit which involves a semantic dependence for its precise interpretation" (Hasan 1996: 196). In other words, the precise interpretation of a message is not explicitly available without the reader/listener having to look for the meaning elsewhere. Ellipsis is an implicit device. When ellipsis is operating, a reader/listener has to retrieve the meanings from either the co-text or the context in order to interpret a message correctly. In other words, there are two kinds of ellipsis: endophoric and exophoric.

Endophoric ellipsis is ellipsis which requires retrieval from the co-text. The interpretative source can be found either preceding or following the implicit device.

When the interpretation for the ellipsis is found in the preceding co-text, it is called anaphoric. Below is an example of anaphoric Subject ellipsis (S-ellipsis):

1. ***(i)*** ***obaasan-wa*** ***ureshi-kute,***
old woman-WA happy-SUSP
The old woman being delighted,
(ii) ***sugu*** ***te-o*** ***nobas-hite,***
immediately hand-O stretch-SUSP
immediately stretched out her hand and
(iii) ***sore-o tsukamae-mashita.***
It-O to grab-FOR=PST
grabbed it. (*Momotaroo* Theme unit 1.18)

In example (1), there is no explicit Actor in clauses (ii) and (iii). The Actor is interpreted as the same participant as the Senser in clause (i), that is, *obaasan*.[2]

When the interpretation of the ellipsis is found in the following co-text, it is called cataphoric, as in example (2) which illustrates locution ellipsis.

(2) ***a)*** ***suru to,*** ***amanjaku-wa*** ***iu-no-desu.***
CONJ Amanjaku-WA say-END=FOC-FOR
Whereupon, Amanjaku said.
b) ***"dattara, ore-ga obu-tte*** ***yaru".***
ADJUNCT I-GA carry-SUSP G-&-R
"Well then, I'll carry you". (*Urihimeko* Theme unit 31)

The projection, "*dattara, ore ga obutte yaru",* of the projecting verbal process, *iu no desu* in sentence a) occurs in the following sentence b). Typically, projections occur in a clause complex which contains the verbal process.[3] The fact that the projection is missing in the first sentence signals that it can be found elsewhere. As it did not precede the projecting verbal process, then the reader/listener can expect to locate it in the sentence following the verbal process sentence.

Exophoric ellipsis is ellipsis which requires retrieval from the context. It is further classified into two types: formal and situational. Formal exophoric ellipsis occurs where "interpretation is predetermined by the language system and permits no

true variation in wording" (Hasan 1996: 207). In Japanese both formal exophoric subject (S) ellipsis and formal exophoric verb (V) ellipsis occur. It occurs when the subject or the verb is interpreted from one's knowledge of the tendency of the language to leave it out. This is the case in example (3).

(3) ***sono ban*** ***no koto*** ***desu***.[4]
that night NO abstract thing COP=FOR
(The incident/It) was that night. (*Momotaroo* Theme unit 2.1)

In this example, the subject is presupposed by ellipsis. The clause is an attributive relational process with only one participant, the Attribute, *sono ban no koto* ('that night') and the process, *desu* ('to be'). The Carrier, if it were explicitly stated, would be either 'the incident' or the demonstrative pronominal, *sore* ('it'). However, the typical unmarked form of a scene-setting relational clause in Japanese grammar is Attribute plus process only. Typically, the Carrier is implied and only explicitly stated as a marked variation. The reader knows to interpret the presupposed subject as the unmarked choice because of the reader's knowledge of the grammatical behaviour of Japanese.

Verb ellipsis occurs when the constituent is retrievable because of one's knowledge of how verbs behave in Japanese. In example (4) the clause-final process, *desu* ('to be') is missing because it is predictable. This is an identifying relational process, which is explicitly realised by the grammatical string:

Identified ^ (followed by) particle *wa* ^ Identifier ^ *desu*.

However, in (4) the process, *desu*, is signalled or predicted by the patterning of Identified ^ particle *wa* ^ Identifier. Essentially, example (4) is a ranking clause in which the verb is presupposed by ellipsis.[5] The reader knows the tense of the

presupposed verb is simple past because the text in which it occurs is an account of a past event in the newspaper.

(4) ***mikka wa setsubun.***
Third WA Bean Throwing Festival
The third (was) the Bean Throwing Festival. (*Setsubun* Theme unit 1)

V-ellipsis also occurs in verbs which are constructed from nouns. These verbs are a combination of the noun plus the verb, *suru* ('to do'). In example (5), the verb, *koosan shita* 'surrendered' (where *shita* is the past tense form of *suru*), is reduced to *koosan* only. The presupposed verb is interpretable from a shared understanding of the patterning of these kinds of 'noun + *suru'* verb combinations.

(5) ***a) oni wa <<b) uoosaoo-shita ageku>>, koosan.***
devils WA <<this way and that-do=PST after>> surrender
a)The devils, <<b) after running here and there>>, surrendered.
(*Setsubun* Theme unit 11)

The other kind of exophoric ellipsis is situational. In this case, the implicit device is interpretable either from one's knowledge of the material situation, or from one's knowledge of shared experience. Example (6) illustrates how the implicit device of ellipsis can be retrieved from the material setting of the language event. In the story of *Momotaroo*, the old woman exclaims:

(6) ***"hate, nan daroo".***
AD what COP=CJT=INF
"Huh, what is (this)?" (*Momotaroo* Theme unit 1.8)

Without actually being in the material situation, it is impossible to know what 'this' is. Either the listener has to be in the material setting to be physically able to see the thing, or else the reader needs the writer to do a lot of scene-setting work in the text to give the reader a description of the material scene. In either case, the referent is the material

thing, a peach, in the imagined physical situation of the story. The reader knows this because of the scene-setting work done by the writer.

Similarly, example (7) illustrates how ellipsis can operate through shared knowledge of experience. In the story, *Taberareta Otoko,* two characters are talking about someone's leg which appears to have regrown. As a third party to the conversation, it would be impossible to know whose leg had undergone such a change without having listened to the entire story or observed the changes over time. To know whose leg is being talked about requires knowledge of shared experience.

(7) ***"a) tashika ni aitsu ga kuiowa-tta ato***
AD NI her GA eat-PST after
After she ate (it),
b) kirikuchi o miru-to,
wound O look-CND
when (I) looked at the wound,
c) soko kara me no yoo na mono ga dete ki-te,
there from shoot NO like NA thing GA emerge-SUSP
out of (it) appeared something like a shoot and
d) sore ga yokuasa made ni rippa na ashi ni na-tta".
that GA next morning until NI magnificent NA leg NI become-PST=INF
it became a magnificent new leg by the following morning.
(*Taberareta Otoko* Theme unit 60)

A further effect of these implicit devices is that endophoric and exophoric ellipsis can reduce clauses to clause fragments of just one participant, with other participants and the process being completely presupposed by ellipsis. Yet these constituents are retrievable. In example (8), both the Carrier, *onigashima wa*, parts of the Attribute, *no shima*, and the process, *deshita*, are omitted from sentence b), c) and d) leaving just the Attributes as clause fragments.

(8) ***a) onigashima wa iwa bakari no shima des-hita.***
devil's island WA rock only NO island COP=FOR-PST
Devil's Island was an island of just rock.
b) kuroi iwa.
black rock
(It) (was) black rock.
c) chairo no iwa.

brown NO rock
(It) (was) brown rock.
d) haiiro no iwa
grey NO rock
(It) (was) grey rock. (*Momotaroo* Theme unit 5.1)

In this example, the Carrier is retrievable due to anaphoric S-ellipsis, while the process is retrievable from the operation of formal exophoric V-ellipsis.

To summarise, in Japanese the implicit device of ellipsis acts as a form of structural cohesion across clauses and across sentences (in written texts), linking items cohesively, thereby raising the possibility that the clause is not the only unit of text over which textual metafunctional meanings are mapped.

2.4 Clause Chaining

Another argument for using the notion of Theme unit to segment text is the feature of clause-chaining in Japanese. Unlike English, Japanese is a language which predominantly utilises chaining structures. Consider Example (1) again, repeated here for convenience:

1. ***(i)*** ***obaasan-wa*** ***ureshi-kute,***
old woman-WA happy-SUSP
The old woman being delighted,
(ii) ***sugu*** ***te-o*** ***nobas-hite,***
immediately hand-O stretch-SUSP
immediately stretched out her hand and
(iii) ***sore-o*** ***tsukamae-mashita.***
It-O to grab-FOR=PST
grabbed it. (*Momotaroo* Theme unit 1.18)

It is a hypotactic clause complex consisting of three clauses.[6] The grammatical forms of the verbs in the first two clauses are medial and non-finite; they do not select for time or tense; rather they use a non-finite tactic inflection, the *–te* form, which signals that they are linking and dependent. Such a line-up of *–te* form clauses is an example of a clause-chain. This chaining structure is often held together cohesively by anaphoric S-ellipsis (as in Example 1) and this is further justification for proposing the use of the Theme

unit construct. Table 1 indicates how the three clauses are related to each other tactically. Clause i) is in a hypotactic, beta relation to clauses ii) and iii) which in combination form the dominant alpha string. The two clauses in this alpha string are also related hypotactically with clause ii) being dependent on clause iii). The two beta clauses (i and ii) are 'chained' to the final clause. A corpus-based study that I conducted (Thomson 2001) suggests that this is a typical clause pattern in Japanese (see also the discussion of Table 2 below).

[INSERT TABLE 1 ABOUT HERE]

2.5 The span of Theme

Having established that ellipsis and clause chaining function to establish cohesive links between clauses, it is reasonable then to argue that Theme is realised by first position in a segment of text which can be grammatically limited by the operation of ellipsis and clause chaining. I call this segment a Theme unit. In other words, Theme is realised by first position in the Theme unit. It is possible to define the unit both grammatically and semantically. By this I mean that the Theme unit has a particular form or structure that can be described grammatically, but it also can be defined semantically by the function that it serves. Defining the Theme unit in this way foregrounds the natural relationship of semantics and grammar (Halliday 1994: xix). Meanings are realised by wordings, and thus the Theme unit can be viewed from the perspective of form or wording but also from the perspective of meaning.

3.0 Defining the Theme unit

3.1 Grammatical Criterion

The Theme unit in Japanese is realised by a segment of text that forms a co-referential unit in which the referent (that which is retrievable in any non-initial clauses in the unit) is the first constituent in the unit. In other words, the segment of text forms a cohesive unit as a result of either:

- the encoded presence of the referent; or
- exophoric formal S-ellipsis of the referent.

Further:

- the operation of anaphoric S-ellipsis ties subsequent clauses to the initial referent.

According to this definition, the Theme unit does not have a one to one correspondence with the unit clause. It can map onto a clause simplex, clause complex, parts of a complex or even traverse a sentence boundary in a written text. In a study I conducted (Thomson 2001) with a corpus made up of 647 Theme units, the Theme units mapped as shown in Table 2.

[INSERT TABLE 2 ABOUT HERE]

From this statistical pattern, it appears that the clause simplex is the most common type of Theme unit (41.6%); however, the table also shows that close to 40% of Theme units map onto segments larger than the clause such as complexes and across sentence boundaries. This kind of patterning suggests that the Theme unit is rather like a 'bloated' clause,[7] typically mapping onto the clause but also often mapping regularly onto larger segments.

In contrast with Fries who stated that the unit he worked with is "a unit slightly larger than the clause, but smaller than the sentence" (1995: 49), I am suggesting that, at

least in Japanese, the Theme unit proposed here is not constrained by the sentence. It can map onto segments larger than the sentence, and this occurs when the co-referential ties extend beyond the full stop.

Consider, now, how the previous examples map onto Theme units. Table 3 is an illustration of a Theme unit mapped onto a clause simplex. The clause has an identifying relational process with first position being filled by the Identifier.

[INSERT TABLE 3 ABOUT HERE]

The example in Table 4 is also a Theme unit mapped onto a clause simplex: however, in this case, the Theme is presupposed due to formal exophoric S-ellipsis.

[INSERT TABLE 4 ABOUT HERE]

Table 5 illustrates a Theme unit mapped onto a clause complex. Anaphoric S-ellipsis of *obaasan* (the old woman) is operating in clauses ii) and iii), thereby cohesively linking them to clause i) and thus constructing the three clauses as one Theme unit.

[INSERT TABLE 5 ABOUT HERE]

Table 6 is an example of a Theme unit mapped onto part of a clause complex. The first Theme unit in this clause complex consists of clause i). The Theme of this clause is presupposed due to formal exophora. The second Theme unit is clause ii). In this clause, there is no ellipsis. The first constituent, *inu datte*, is the Sayer, functioning as Theme.

[INSERT TABLE 6 ABOUT HERE]

Finally, examples of a Theme unit traversing a sentence boundary are illustrated in Tables 7 and 8. In Table 7, the Sayer in sentence b) is presupposed due to anaphoric S-ellipsis. The retrieval of the Sayer is found in sentence a). (Note that *suru to* is a connective phrase functioning as a textual Theme.[8])

[INSERT TABLE 7 ABOUT HERE]

In Table 8, the Carrier, *onigashima* ('Devil's Island'), is elided in sentences b), c) and d). The Carrier is retrievable from sentence a).

[INSERT TABLE 8 ABOUT HERE]

3.2 Semantic criterion

The Theme unit can also be defined semantically. The semantic recognition criterion relates to thematic progression (TP) as presented by Daneš (1974). Daneš demonstrates three typical patterns of thematic progression. One kind of progression pattern, the continuous pattern, occurs within Theme units while the other two patterns, the linear and the derived, occur between Theme units. The continuous pattern, which is a pattern of repeating Themes, occurs within a Theme unit because of the operation of anaphoric and exophoric S-ellipsis. This tendency neatly provides a semantic recognition criterion for the Theme unit. This is illustrated in Table 9.

[INSERT TABLE 9 ABOUT HERE]

Essentially, a Theme unit can be defined semantically as a unit consisting of one thematic phase of continuous thematic progression. In other words, the same Theme may be expanded by more than one Rheme.[9] These Rhemes may exist within the constituent clauses of a clause complex and/or across a sentence boundary. Semantically, a Theme unit is thus one phase of continuous thematic development. If the Theme changes, a new Theme unit is formed. This continuous thematic pattern is illustrated in Table 10.

[INSERT TABLE 10 ABOUT HERE]

3.3 Steps to Identifying the Theme unit

Having defined the Theme unit, it is now possible to identify it in text. There are a number of steps involved.

Firstly, the text needs to be divided into clauses. Consider the opening of the nursery tale *Momotaroo* reproduced in Table 11. There are 17 sentences consisting of 29 clauses.

Secondly, anaphoric and/or exophoric S-ellipsis needs to be identified. In this case, there are 13 occurrences of S-ellipsis: 8 formal exophoric (clauses *b, d, k, p, u, v, w* and *bb*) and 5 anaphoric (clauses *g, i, j, s* and *t*). The five anaphoric S constituents work cohesively to produce two large Theme units (5 and 10) by linking clauses *f, g, h, i* and *j,* and clauses *r, s* and *t*. Of the exophoric tokens, four (*d, k, p, bb*) operate within projecting clauses producing Theme units mapped onto clause complexes, while three of the other four clauses (*u, v, w*) produce one large Theme unit (11). The rest of the

Theme units in the text are mapped onto clause simplexes or clauses within a clause complex. In total, there are 16 Theme units.

[INSERT TABLE 11 ABOUT HERE]

At this point in the discussion, it is probably helpful to say something about the function of the particle *wa,* which tends to appear regularly following the element in first position in the Theme unit. The particle *wa* is typically considered to function as Theme or topic marker in Japanese (see e.g. Li and Thompson 1976; Hinds 1983; Maynard 1987, 1994; Iwasaki 1987; Halliday 1994; Teruya 1998). In the examples used in the discussion to this point, particle *wa* appears in first position in Theme units 3, 5, 7, 10, 12, 13 and 14 (44%) (see Table 11). In a larger study on the linguistic environment of the particle *wa* (Thomson 2004), 47.6% (308 of 647 Theme units) of constituents which were marked by *wa* occurred in first position, functioning as Theme.

If, indeed, *wa* functions to mark Theme, then the following hypotheses seem reasonable:

1) assuming that every Theme unit has a Theme, the number of tokens of *wa* would equate with the number of Theme units;
2) the location of the constituent marked by *wa* need **not** be positioned in a particular place in the Theme unit, with the consequence that position would have nothing to do with the realisation of Theme.

Hypothesis 1 was not supported in the Thomson (2004) study referred to previously. With regard to hypothesis 2, the study found that the constituent marked by *wa* appears in first position almost 50% of the time. This percentage seems too large not to be important. Further, if **both** i) position (first, second, third, etc.) in the Theme unit **and** ii) the presence of *wa* were functioning to realise Theme, then we would have two

grammatical realisations serving the same function. This seems a little like grammatical over-servicing. Why have two different grammatical resources doing the same thing?

It would seem that something else is going on. In order to understand what that is, it is important to comment on the nature of reference in Japanese.[11] Reference relies partly on the operation of pronouns which function to indicate the referent to the reader/listener; but these are not the only resource for referencing and tracking participants in texts. Through the use of another resource, the reader/listener can identify whether a participant is *presented* for the first time in a text, or whether a participant *presumed* to be retrievable by the addressee is re-introduced (see Martin 1992 for the distinction between presenting versus presuming reference in English). In Japanese participants with presenting reference are marked by the particle *ga*, while re-introduced participants with presuming reference are marked by *wa*. These newly presented participants identified by *ga* typically occur closer to the verb at the end of the clause in the salient 'new' position, while *wa* functions to mark anaphoric participants which are re-introduced when there are two or more participants in a text. When re-introduced, these participants tend to be selected as points of departure, that is as Theme, and so appear in first position. This explains why *wa* is often thought to mark Theme. The participant that is marked by *wa* is typically a given participant, selected as Theme. The grammatical behaviour of both *wa* and *ga* are observable in the opening lines of the *Momotaroo* nursery tale. Each token is identified in Table 11 by a Greek letter and explained in Table 12.

[INSERT TABLE 12 ABOUT HERE]

However, that is not the end of the story. In the gloss on *momo ni shite wa* in Table 12, the term 'comparative reference' is used. The particle *wa* is considered to have another textual function, that of marking comparative reference (Kuno 1973; Iwasaki 1987). In other words, if *wa* marks either a participant or a circumstance which is newly introduced as opposed to presumed to be retrievable, then a contrast is set up with other participants or circumstances in the co-text or the context. Table 13 illustrates this in an extract from a text about South Canberra. Each occurrence of *wa* and *ga* is indicated by a Greek letter, and the function is explained below.

[INSERT TABLE 13 ABOUT HERE]

The Themes in the South Canberra text are either participants (Theme units 1 and 6) or circumstances (Theme units 2, 3, 4 and 5). The participants are presumed to be retrievable, while the circumstances are presented as new. This presentation as 'new' serves to construe a meaning of comparative or contrastive reference.

Returning to the discussion on how to identify Theme units, a further consideration is the presence of hypotactic enhancing clauses. These clauses are dependent and typically precede the dominant clause. Functioning in a manner similar to that of circumstances, these hypotactic clauses set the scene, often supplying episodic knowledge which holds across the span of the Theme unit. In other words, unit-initial hypotactic enhancing clauses serve the same function as unit-initial circumstances, that is, they set the scene for the ensuing action(s) of the protagonists. Further, these constituents are typically marked as 'new' and therefore carry a meaning of contrastiveness. The presence of circumstances and enhancing clause Themes in

narratives in English has been documented (see Matthiessen 1995a:39 for just one description). Further, it is also the case for narratives in Japanese. In a study conducted in 2001, I demonstrated that the method of development of five narrative texts in Japanese developed around participants, "with circumstantial Themes and enhancing beta clause Themes functioning to set the scene for the actions and dialogue between the participants" (Thomson 2001: 227). It is therefore important to note that, if a circumstance or a hypotactic enhancing clause is the first constituent, then the Theme unit extends up to the limit of processes occurring within the scene whether it be a temporally, locationally or conditionally limiting 'scene'. This is illustrated in Table 14, using an extract from a news report of a bank robbery.

[INSERT TABLE 14 ABOUT HERE]

4. The function of the Theme unit

Put simply, the Theme unit functions to signal a shift in Theme. By segmenting a text into Theme units, it is possible to observe the thematic choices and how they contribute to the overall method of development of a text. This is relevant not only in Japanese but possibly in other languages as well.

If it is assumed that other languages have co-referential units which semantically construe one phase of continuous thematic progression, through the same or possibly different grammatical resources as in Japanese, then the full set of thematic choices involved in the method of development of a text can be traced. Matthiessen discusses "the contribution Theme makes in guiding the creation of instantial ideational systems" (1995a: 22). The choice of Theme enables different kinds of logogenetic expansion. It

can be argued that this kind of expansion becomes more fully apparent using Theme unit analysis than with just a clause-by-clause analysis. This can be illustrated using English as an example in Table 15. The text, *The Fuels of the Body* (taken from Matthiessen 1995a), is developed around thematic choices which select components of an ideational taxonomy as Theme. It is possible to see a co-referential unit in English as construed through the operation of pronouns rather than predominantly through ellipsis, as is the case in Japanese; and in this case the text, which consists of 24 clauses, is organised into 15 Theme units. The components of the taxonomy, that is carbohydrates, glucose, glycogen, fats, proteins, etc., immediately stand out as the Themes of the Theme units (highlighted in bold). Also, strategically placed around the taxonomic instantial themes are two hypotactic enhancing clauses (8 and 12) and one circumstance functioning to set the scene in clause 19, or rather to limit the condition for the operation of the ideational nodes and the processes in which they are involved. This example illustrates how Theme unit segmentation functions to indicate shifts in the logogenetic expansion within a text.

[INSERT TABLE 15]

Further, by conducting Theme unit analyses, the fractal nature of theme selection becomes more apparent. Theme selection occurs at the whole text level through the selection of Macro-Theme; at the paragraph level through the selections of Hyper-Theme (see Martin 1993: 251 on Macro- and Hyper-Theme); at Theme unit level, where the shift in logogenetic expansion becomes visible; and at clause level. At clause level the thematic organisation of individual clauses serves to develop a single point of

expansion within a larger Theme unit, and dependent clauses manifest their own internal thematic organisation, as is the case for the hypotactic enhancing clauses such as clauses 8 and 12. In this sense, then, the fractal layering of thematic choice displays the method of development of a text.

5. Locating the Theme unit in SF theory

The Theme unit, as described in this paper, is a unit held together by co-reference, in which the referent is the first constituent in the unit. In Japanese, the co-reference is achieved through the operation of anaphoric S-ellipsis, while in English it can be seen as achieved through the operation of pronouns and demonstratives (Halliday 1994: 312-316). How co-reference is realised depends on the particular lexico-grammatical behaviour of individual languages. In any case, the function of a co-referential relationship is "to contribute to the semantic structure of the discourse" (Halliday 1994: 316). An interesting point to note is that while in English the use of pronouns and demonstratives is clearly a relationship in meaning, in Japanese the use of ellipsis as a resource of co-referentiality is a relationship in the wording, that is, a relationship which is lexicogrammatical (Halliday 1994: 316).

Thus, the question arises: is the Theme unit a structural or semantic unit? The answer is clearly both, but one of these perspectives may be more salient, depending on the kind of grammatical resource used to realise co-reference. If ellipsis, which is a relationship in the wording, is used to co-refer, then the Theme unit appears predominantly 'structural' in nature; but if pronouns and demonstratives are used, then semantic character emerges more strongly. This debate, which is about the kind of lexico-grammatical realisation, depends on which language is under analysis. However, the important point to note is that the Theme unit functions to signal a shift in Theme

and this is most likely common across other languages which construct a wave-like textual patterning of Theme followed by Rheme. As the Theme unit is semantically recognisable as one phase of continuous thematic progression, it is useful to think of it as a semantic unit of textual organisation. It is a unit which maps onto and across the clause and even beyond sentence boundaries.

6. Conclusion

This paper set out to explore the notion of a textual unit in Japanese which serves to signal a shift in the logogenetic expansion of instantial ideational nodes, in other words a shift in Theme. This textual unit, the Theme unit, has been described in both grammatical and semantic terms. Justification for the proposal of this unit in Japanese has been provided via a discussion of similar phenomena in other languages and via the particular grammatical characteristics of co-referential ellipsis and clause chaining in Japanese. The steps involved in identifying the Theme unit were outlined along with a brief discussion of the role of particle *wa* in building cohesive relations in Japanese text. This was followed by a description of the function of the Theme unit using examples from Japanese and English, concluding with a discussion on the location of the Theme unit in Systemic Functional theory.

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Notes

1. Nuclear participants are the central participants associated with each process type (Martin *et al*. 1997: 103).

2. The terminology used to label process types (attributive, etc.) and participants (Actor, Senser, etc.) is drawn from Halliday (e.g. 1994, Chapter 5).

3. Consider the following example from *Momotaroo* (Theme unit 2.27). In this example, the locution occurs within the clause complex which contains the verbal process.

   Tsuzuite, "nante, kawaii akanbo ka" obaasan ga iimashita.

   Continuing, "What's this, a cute baby?" the old woman said.

4. The tense in the Japanese example is simple present, but in translation it is rendered into the simple past to fit with the tense patterning in English recounts.

5. A 'ranking' clause is any non-embedded clause; see Halliday (1994: 188).

6. Hypotaxis is a linking relation between clauses of unequal status. One is dominant, and is labelled the alpha clause, the other is dependent, and is labelled the beta clause (Halliday 1994: 221).

7. I wish to thank Geoff Thompson for suggesting to me the notion of a 'bloated clause'.

8. For the status of textual Themes as elements which do not 'exhaust the thematic potential of the clause', see Halliday (1994: 52).

9. Rheme refers to everything that follows Theme in the Theme unit (Halliday 1994: 37).

10. *Tokoro ga* is a connective functioning as a textual Theme.

11. "The cohesive resource of reference refers to how the writer/speaker introduces participants then keeps track of them once they are in the text" (Eggins 1994: 95)

12. Comparative reference and the role *wa* plays is explained in the following paragraphs.

Interlinear notation key

AD adjunct

ASP aspect

CJT conjecture. For eg. *daroo, mashoo*

CND conditional

CONJ conjunctive

COP copula

E postpositional phrase marker

END ending

FOC focus: end=focus eg: *-no (n) da*, *-mono, wake da* etc

FOR formal form of the verb. For e.g. *–masu* form

GA postpositional group marker

IMP imperative

INF informal form of the verb/adjective. For e.g. *da, -ru, -eru*, adj-*i*

PHS=APA phase=apparent. For e.g. adj-*soo (desu)*

NA adnominal marker

NF non-finite

NI postpositional phrase marker

NO nominal marker

NOMZ nominalising postposition

O postpositional group marker

PST past

SUSP non-finite, tactic verb form. For e.g. *–te* form

TO postpositional quotative clause marker

VOL volitional form

WA postpositional group and phrase marker

adapted from Teruya 1998 pp xxiii-xxiv

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TABLES AND FIGURES

Table 1: Logical clausal relations in Example (1)

β		*i) obaasan wa ureshikute,* The old woman being delighted,
α	β	*ii) sugu te o nobashite* immediately stretched out her hand and
	α	*iii) sore o tsukamaemashita.* grabbed it

Table 2:Theme unit and clause

Theme unit mapping onto:	Percentage
Clause Simplex	41.6
Clause Complex	26.6
A clause within a complex	21.3
Across a sentence boundary	10.5

Table 3: Theme unit spanning a clause simplex

Mikka wa The third	***Setsubun.*** (was) the Bean Throwing Festival.
Theme	Rheme

Table 4: Theme unit spanning a clause simplex with S-ellipsis

(The incident)	***sono ban no koto desu.*** was that night.
Theme	Rheme

Table 5: Theme unit spanning a clause complex

(i) obaasan wa The old woman	***ureshikute, (ii) sugu te o nobashite, (iii) sore o tsukamaemashita***. being delighted (ii) immediately stretched out her hand and iii) grabbed it.
Theme	Rheme

Table 6: A clause complex consisting of two Theme units

i)	***mukashi no koto desu kara,*** ancient NO thing COP because	***(ii) inu datte*** dogs WA	***mono o i-tta no-desu.*** Thing O say-PST END=FOC-FOR
(It/this)	is an ancient story and so,	(ii) dogs	said things, you see.
Theme	Rheme	Theme	Rheme
Theme unit 1		**Theme unit 2**	

Table 7: Theme unit traversing a sentence boundary

a) suru to, amanjaku wa a)Whereupon, Amanjaku	***iu no desu. b)"dattara, ore ga obutte yaru".*** said. b)"Well then, I'll carry you".
Theme	Rheme

Table 8: Theme unit traversing several sentence boundaries

a) onigashima wa a) Devil's Island	***iwa bakari no shima deshita. b) kuroi iwa. c)chairo no iwa. d) haiiro no iwa.*** was an island of just rock. b) (It) (was) black rock. c) (It) (was) brown rock. d) (It) (was) grey rock.
Theme	Rheme

Table 9: Semantic criterion: one phase of continuous thematic progression

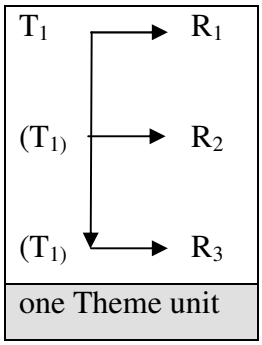

Table 10: An example of the semantic criterion in operation

Theme 1	*i) ( )* (Momotaroo)	R_1	***uchi o de-te,*** house O leave-SUSP left the house,	**T U 3.19**
	ii) (..) (Momotaroo)	R_2	***sukoshi iku-to*** little go-CND after going a little way,	
	iii) ( ) (Momotaroo)	R_3	***mura e de-mas-hita.*** village E leave-FOR-PST arrived at the village	
Theme 2	***suru to, ippiki no ookina inu ga*** do-CND one NO big dog GA Then, one large dog	R_1	***kakeyo-tte ki-mas-hita.*** rush up-SUSP ASP-FOR-PST came rushing up to him	**T U 3.20**

Table 11: Theme unit analysis of an extended stretch of text

T U	clause	Theme	Rheme
1	*a*	***mukashi, mukashi,*** ancient, ancient ***[[aru]] tokoro ni*** exist place NI Long ago, in a certain place,	***ojiisan to obaasan to ga$^{\alpha}$ sun-de*** old man CONJ old woman CONJ GA live-SUSP ***or-imas-hita.*** ASP-FOR-PST an old man and woman lived.
2	*b*	***tokoro ga,^{10} (…….)*** CONJ And so, (it)	***natsu no [[aru]] bi no koto des-hita.*** summer NO exist day NO thing cop:for-pst happened one summer's day.
3	*c*	***ojiisan wa$^{\beta}$*** old man The old man	***yama e shibakari ni dekake-mas-hita.*** hills E brushwood NI leave-FOR-PST left for the mountains to collect brushwood.
4	*d* *e*	*( )* (The old woman)	(said), ***"i-tte rasshai"*** go-SUSP ASP-INF "Goodbye".
5	*f* *g* *h* *i* *j*	***obaasan wa$^{\chi}$,*** old woman The old woman *( )* (she) *( )* (she) *( )* (she)	***ojiisan o okuridasu-to,*** old man O send off-CND as she sent her husband off, (said), ***"dore, dore, watashi wa$^{\delta}$, kawa e sentaku ni*** AD AD I WA river E washing NI ***iki-mashoo" to,*** go-VOL TO "Well, I'll go to the river to do the washing", ***tarai o kakae-te*** washing tub O take-SUSP taking her washing tub, ***kawa e sentaku ni dekake-mas-hita.*** River E washing NI leave-FOR-PST went out to the river to wash.
6	*k*	*( )* (The washing)	***"zabuzabu, zabuzabu"*** scrub scrub scrub scrub (sounded),"Scrub, scrub, scrub, scrub"
7	*l*	***obaasan wa$^{\varepsilon}$*** old woman The old woman	***seidas-hite sentaku o shimashita.*** exert-SUSP washing O do-FOR-PAST worked hard doing the washing.
8	*m* *n* *o*	***sukoshi suru-to*** little do-CND After doing do	 ***kawakami kara, ukishizumi s-hite*** up river from bob up & down do-PAST from up river, bobbing up and down ***[[nagare-te kuru]] mono ga$^{\phi}$ ar-imas-hita.*** Float-SUSP ASP thing GA exist-FOR-PST a thing which was floating appeared.
9	*p*	*( )* (she)	(said),

	q		***"hate, nan daroo."*** AD what COP=CJT=INF "Huh, what's this?"
10	*r* *s* *t*	***obaasan wa***$^{\gamma}$ old woman The old woman *( )* (she) *( )* (she)	***sentaku o yame-te,*** washing O quit-SUSP quit washing and, ***atama o kashigete*** head O tilt-SUSP tilting her head, ***kangae-mas-hita.*** thought-FOR-PST wondered.
11	*u* *v* *w*	*( )* (It) *( )* (It) *( )* (It)	***marui mono desu.*** round thing COP was a round object. ***suika gurai no ookisa desu.*** watermelon about NO size COP was about the size of a watermelon. ***shiro-kute, aokute, usuaka desu.*** white-SUSP green-SUSP light red COP. was white, green and a light red.
12	*x*	***momo ni shite wa***$^{\eta}$ peach NI do-SUSP WA For a peach	***ookii shi,*** big CONJ (it) was big,
13	*y*	***uri ni shite wa***$^{\iota}$ melon NI do-SUSP WA For a melon	***manmaru da shi.*** round COP CONJ (it) was round.
14	*z*	***to, moo*** CND AD As (she was thinking) already	***sore wa***$^{\varphi}$ ***[[mieru]] tokoro ni yatte kimashita.*** it WA visible place NI do-SUSP ASP-FOR-PST it moved to a place where it was more visible.
15	*aa*	***sore wa***$^{\kappa}$ it WA It	***ookina ookina momo datta-no-desu.*** big big thing cop-pst-END=FOC-FOR was a very, very big peach.
16	*bb* *cc*	*( )* (The old woman)	(said), ***"maa, mezurashii momo. nan-te ookina,*** AD unusual peach what big ***oishi-soo na momo. iie, kirei de,*** delicious-PHS=APA NA thing No pretty COP-SUSP ***soshite utsukushii momo".*** CONJ magnificent peach "What an unusual peach. It's such a big, delicious looking peach. No, it's pretty, or rather, it's a magnificent peach."

Table 12: *wa* and *ga* in the nursery tale

α	*ojiisan to obaasan to* ***ga***	*ga* marks newly introduced participant, 'the old man and woman' in the opening Theme unit of the story. The participant occurs in the Rheme.
β	*ojiisan* ***wa***	*wa* functions as the anaphoric reference particle pointing the reader back into the cotext to *ojiisan*, 'old man' in Theme unit 1. It is selected as Theme, appearing in first position.
χ	*obaasan* ***wa***	*wa* functions as the anaphoric reference particle pointing the reader back into the cotext to *obaasan*, 'old woman' in Theme unit 1. It is selected as Theme, appearing in first position of the first Theme unit in a new paragraph.
δ	*watashi* ***wa***	This *wa* occurs within a projection within the Rheme of Theme unit 4. It functions anaphorically indicating that *watashi*, 'I' refers to *obaasan* in Theme unit 4.
ε	*obaasan* ***wa***	*wa* functions as the anaphoric reference particle reintroducing *obaasan*, 'old woman' after the elided Theme, 'washing', interrupted as Theme in Theme unit 6. It is selected as Theme, appearing in first position of the first Theme unit in a new paragraph.
ϕ	*nagarete kuru mono* ***ga***	*ga* marks a newly introduced participant, 'a thing which was floating' in Theme unit 8. The participant occurs in the Rheme.
γ	*obaasan* ***wa***	*wa* functions as the anaphoric reference particle reintroducing *obaasan*, 'old woman'. It is selected as Theme, appearing in first position of the first Theme unit in a new paragraph.
η	*momo ni shite* ***wa***	*wa* functions as a comparative reference particle setting up a contrast between *uri ni shite.* Note *momo* is a new element selected as Theme.
ι	*uri ni shite* ***wa***	*wa* functions as a comparative reference particle setting up a contrast between *momo ni shite.* Note *uri* is a new element selected as Theme.
φ	*sore* ***wa***	Up until this point in the text, *mono*, 'the thing', has been exophorically elided; however, in Theme unit 14, the demonstrative *sore*, 'it', is used as a highly marked alternative to the unmarked exophoric ellipsis of *mono*. *wa* functions as the anaphoric reference particle reintroducing 'it'.
κ	*sore* ***wa***	*wa* functions as the anaphoric reference particle reintroducing 'it'.

Table 13: *wa* signalling comparative reference

Sausu Kyanbera (South Canberra)	
*1.**sausu kyanbera no*** South Canberra NO ***chuushin wa***$^{\alpha}$ centre WA The centre of south Canberra	*kyapitaru hiru da.* Capital hill COP-INF is Capital Hill.
*2. **hiru no chuushin, kodakai*** hill NO centre small ***oka no choojoo ni wa***$^{\beta}$ hill NO top NI WA In the centre on the top of the small hill	*kokkaigijidoo ga sobie, iyoo o kiso-tte iru.* Parliament house GA stand-SUSP dignity O compete-SUSP ASP towering above dignifiedly is Parliament House.
*3.**hiru no susono ni wa***$^{\beta}$ hill NO foot NI WA At the foot of the hill	*saikoo saibansho o hajime, kokuritsu toshokan ya* high court O begin:NF national library CONJ *kokuritu bijutsukan nado no bunka shisetsu ga*$^{\chi}$ national museum such as NO culture facilities GA *atsuma-tte iru.* gather-SUSP ASP beginning with the High Court, cultural facilities such as the National Library and the National Art Gallery gather.
4. *shiti hiru to dooyoo, **hiru*** city hill TO same hill ***no mawari ni wa***$^{\beta}$ NO around NI WA As with City Hill, around (Capital) Hill,	*kanjoo dooro ga*$^{\chi}$ *hashitte ori,* circular road GA run-SUSP ASP, a circular road runs,
5. soko kara there from from there	*hooshajoo ni chokusen dooro ga*$^{\chi}$ *nobite iru.* radiate NI straight roads GA stretch-SUSP ASP straight roads fan out.
6. (Canberra) $^{\delta}$	*kyanbera Av to burisuben Av, meruborun Av,* Canberra Av CONJ Brisbane Av, Melbourne Av *adereedo Av to, oosutoraria no kakushuu tomei ni* Adelaide Av CONJ Australia NO each state capital NI *chinande iru no ga*$^{\chi}$ *ikanimo shuto rashii.* Name-SUSP ASP NOMZ GA really capital like with each road being named after state capital cities such as Canberra Ave, Brisbane Ave, Melbourne Ave, Adelaide Ave… is really capital-like.
Theme	Rheme

$^{\alpha}$ *wa* functions as the anaphoric particle pointing the reader back to the title of the text.

$^{\beta}$ *wa* functions as a comparative reference particle setting up a contrast between *hiru no chuushin, hiru no susono* and *hiru no mawari*. Each location on the hill is 'new'.

$^{\chi}$ *ga* marks newly introduced participants and appears rhematically as an unmarked choice.

$^{\delta}$ the participant, *kyanbera*, is elided due to formal S exophora. The word *shuto*, 'capital', identifies the redundancy.

Table 14: Initial hypotactic clause as Theme

T U	Theme	Rheme
5	*i.[[Yoshino-san ga soba ni a-tta]]* Yoshino-Mr GA next NI exist-PST *ichi-man-en no satsutaba hutatsu* one-ten thousand-yen NO pile two *o kauntaa ni oku-to* O counter NI put-CND When Mr. Y put the two piles of cash which were close to him on the counter	*ii. otoko wa "kocchi ni hoore" to* man WA here NI put:IMP TO the man, saying, "put the money in here" *iii. kaimono-bukuro o nagekomi,* shopping-bag O throw:SUSP threw (Mr. Y) the shopping bag and,
6	*iv. satsutaba o ire-te,* piles O put in-SUSP *v. nagekaes-hita totan,* hurl back-PST when when (Mr. Y) put the money in the bag and hurled it back,	*vi. otoko wa hukuro o washizukami ni si-te,* man WA bag O snatch NI do-SUSP the man snatching it *vii. omote ni tobidashi,* entrance NI run out:NF ran out of the bank entrance and, *viii. dooshiten nishigawa ni tome-te atta* bank westernside NI stop-SUSP ASP *jooyoosha de toosoo s-hita.* car by escape do-pst escaped in a car which was parked on the western side of the bank.

Table 15: Theme units applied to English text

Theme unit	Clause	Theme	Rheme
1	1	**The fuels of the body**	are carbohydrates, fats and proteins.
2	2	**These**	are taken in the diet.
	3	They	are found mainly in cereal grains, vegetable oils, meat, fish and diary products.
3	4	**Carbohydrates**	are the principal source of energy in most diets.
	5	They	are absorbed into the bloodstream in the form of glucose.
4	6	**Glucose not needed for immediate use**	is converted into glycogen
5	7	**and (glycogen)**	(is) stored in the liver.
6	8	**When the blood sugar concentration goes down,**	
	9		the liver reconverts some of its stored glycogen into glucose.
7	10	**Fats**	make up the second largest source of energy in most diets.
	11	They	are stored in adipose tissue and round the principal internal organs.
8	12	**If excess carbohydrate is taken in**,	
	13		this can be converted into fat
	14		and (this can be) stored
9	15	**The stored fat**	is utilized
	16		when the liver is empty of glycogen.
10	17	**Proteins**	are essential for the growth and rebuilding of tissue,
	18	but they	can also be used as a source of energy.
11	19	**In some diets, such as the diet of the Eskimo,**	they form the main source of energy.
12	20	**Proteins**	are first broken down into amino acids.
13	21	**Then they**	are absorbed into the blood
	22	and (they)	pass around the body.
14	23	**Amino acids not used in the body**	are eventually excreted in the urine in the form of urea.
15	24	**Proteins,**	unlike carbohydrates and fats, cannot be storied for future use.