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Japanese-style Noun Modification ... in English*

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In this paper I first describe adnominal clause constructions in Japanese, whose construal is strongly dependent on semantics and pragmatics. I will briefly outline a framework in which the construal can be analyzed, and will present examples that suggest that this framework is useful for corresponding constructions in Korean and Chinese. What is perhaps surprising is that certain constructions in English can also be analyzed within a similar framework.

1. NOUN-MODIFYING CONSTRUCTIONS IN JAPANESE

The constructions in Japanese that I wish to discuss are those of the form of a complex noun phrase formed by a noun or noun phrase preceded by a clause which semantically qualifies the head noun and whose predicate is in finite form. This includes the types that are usually called "relative clauses" and "noun complement constructions", illustrated by the examples (1) [watasi ga kinoo atta] hito 'the person (whom) I met yesterday', and (2) [[[tikyuu ga marui] zizitu]] 'the fact (that) the earth is round'. I refer to such constructions as adnominal clause or clausal noun-modifying constructions. The constructions in Japanese of the form just given can correspond to various forms in English; namely, modification by a finite, infinitival, or participial clause. Thus, the expressions the book which the student bought, things to do, and the result of skipping breakfast correspond in Japanese to this single form of construction; that is, to a head noun preceded by a clause in finite form.

As I argued elsewhere (Matsumoto 1988a,b), the construal and the generation of Japanese clausal noun-modifying constructions are controlled by a fundamentally different principle from that usually proposed for English and many other languages. The category "relative clause construction", for example, is in English a syntactically defined structure, characterized by the existence of a reference-binding relationship between the head noun and either a relative pronoun, or (in relative clauses without relative pronouns) a syntactic gap in the modifying clause. Within relative clauses introduced by relative pronouns (or relative-pronoun-phrases, such as with whose friends), the remnant of the clause following the relative expression can always be seen

as having an unfilled position which could be filled by a word or words denoting the category represented by the relative expression. Thus, for example, in the noun phrase the book the student bought, the semantic relationship of the head noun to the relative clause the student bought is strictly determined by the syntax of the relative clause.¹ The structure of relative clauses contrasts with that of noun complement clauses, which present no gap, as in the fact that the student bought the book.

In Japanese, however, there is no such syntactic dichotomy between relative and noun complement constructions. The first and most telling reason for this is that there is no rule in Japanese requiring all the arguments of a verbal to be present in a sentence; therefore, there may be missing arguments even in a regular non-relative sentence. For example, (3) katta '() bought ()' can be a grammatical sentence, even though no arguments are present, as long as the buyer and the goods are understood from the prior linguistic or extra-linguistic context. Hence, unlike in English, the apparent 'absence' of an 'expected' argument tells us nothing about whether the clause is a main clause, a relative clause or a noun complement clause. The second reason for the lack of any clear-cut syntactic dichotomy in Japanese between relative clauses and noun complements is the existence of constructions that do not correspond either to relative or to noun complement clauses in English. These two points together form the basis for the perspective in my analysis of Japanese noun-modifying constructions.

The concepts at the center of my analysis of noun-modifying constructions in Japanese (Matsumoto 1988b) are those of simple frame, host, and world view. A frame is a structure for expressing semantic relationships, and it has positions that can be indexed (or filled in) by certain words or expressions. By simple frame I mean the frame that is evoked by a word or an expression. For example, the verb katta 'bought' (kau 'buy') evokes a (simple) frame of "buying", or, more inclusively, a frame of a "commercial event". Such an evoked simple frame contains positions (or slots) for possible participants. In the "commercial event" frame, possible participants would include the "buyer", "goods", "seller", "money", and also the "purpose", "beneficiary", "byproducts". This concept of frame resembles Fillmore's case frames (Fillmore 1968), but with the modification (as in more recent studies using frame semantics) that the frame models a generalized scene,

rather than being strictly linguistic.

Construal of noun-modifying constructions in Japanese relies on a coherence between the two constituents - the adnominal clause and the head noun. This coherence can be expressed in terms of the concept of a host. Thus, when the frame evoked by one of the two constituents of the NMC is interpreted as integrating what is expressed by the other constituent, we say that the frame is host to the other constituent. Frames evoked by the main predicate of the modifying clause, and frames evoked by certain head nouns are the frames that most frequently function as hosts.

The third concept I mentioned - that of world view - refers to what R.N. Ross (1975) (quoted in Tannen 1979) has called a "structure of expectation", in other words, it is the culturally-based knowledge about the world that allows one "to predict interpretations and relationships regarding new information, events, and experiences". The necessity for consideration of the world-view is evidenced by the difficulty which Japanese speakers find in interpreting examples such as (4).

- 4) ?? [[Tookyoo o tabeta] tomato]
Tokyo ACC ate tomato
? 'the tomato (which) ate Tokyo'

As the English translation shows, the English counterpart of (4) has one indisputable reading which is imposed by the syntax: that in which the tomato is the agent and Tokyo the patient of the eating. In Japanese, however, the relationship between the two constituents is construable only if the hearers discard their ordinary or "default" world view and adopt one of fantasy. It should not be surprising, then, to find that many native speakers of Japanese should judge (4) to be unacceptable.

We can contrast (4) with example (5) which, in spite of the fact that the arguments of the verb in the modifying clause are not mentioned, and in spite of the fact that the head noun indexes an adjunct position, is perfectly comprehensible on account of the semantics of the head noun resutoran 'restaurant'.

- 5) [[Kinoo tabeta] resutoran] wa kondeita.
yesterday ate restaurant TOP was crowded
'The restaurant (at which) (I) ate yesterday was crowded.'

It should be emphasized that the degree of plausibil-

ity, relative to the construer's world-view, of the situation described or alluded to plays a non-negligible role in making acceptability judgments. In syntactic analyses, the extractability of a noun from a complex NP is employed to illustrate subject-non-subject asymmetry in that extraction out of an NP in subject position is allowed, while the extraction out of an NP in non-subject position is not (Hasegawa 1981, Saiki 1985). This contention, however, cannot be maintained. When the invoked situation is plausible, extraction from an indirect object position is also acceptable, as in (6a).

- 6a) [[[[watasi ga 0 0 okutta] o-tyuugen] ga
 I NOM sent HON.-summer-gift NOM
 kowareteita] tokuisaki] ga aru n desu ga...
 was broken client NOM exist NMLZR is but
 '(lit.) There is a client (to whom) the summer gift
 (which) (I) sent, was broken, but...'
 Cf.6b) Watashi ga (tokuisaki ni) (o-tyuugen o)
 I NOM client DAT HON.-summer-gift ACC
 okutta.
 sent
 'I sent the summer gift to a client.'

Japanese clausal noun-modifying constructions fall into three major types, according to which constituent plays the role of host in the construal of the construction. The three types are (i) constructions in which the modifying clause hosts the head noun (the Clause Host-, or CH-type), i.e., constructions in which the denotatum of the head noun participates in a frame evoked by the main predicate of the modifying clause, (ii) constructions in which the head noun hosts the modifying clause (the Noun Host-, or NH-type), i.e., constructions where what is described in the modifying clause is a complement of what is denoted by the head noun, and (iii) constructions in which both the modifying clause and the head noun host reciprocally (the Clause and Noun Host-, or CNH-type), i.e. in which the head noun can evoke a frame containing a slot for what is expressed in the modifying clause, while the frame evoked by the modifying clause in turn contains a possible participant role for the denotatum of the head noun.

The CH-type is illustrated by examples (7), (8) and (9).

- 7) [[hon o katta] gakusei] wa doko desu ka
 book ACC bought student TOP where is QP
 'Where is the student (who) bought the book?'

- 8) [[atama ga yokunaru] hon]
 head NOM gets better book
 'the book (by reading which) (one's) head gets better'
- 9) [[te o araw-anakutemo ii] oyatu] nai?
 hand ACC O.K. not to wash snack isn't there
 'Isn't there a snack (in order to eat which) (I) don't have to wash (my) hands?'

The head noun gakusei 'student' in (7) indexes the participant role "buyer" in the frame evoked by the verb katta 'bought' in the modifying clause. (8), in which the verb in the embedded clause is intransitive, is a more complicated example, but the same principle applies. The construal can be summarized by saying that the head noun hon 'book', in association with the action of reading, occupies the position of the "cause" in the frame evoked by yokunaru 'gets better'. Likewise in (9), the head noun oyatu 'snack', in association with the action of eating, occupies the position of the "purpose" in the frame evoked by the modifying clause. In these less straightforward constructions, the data I have collected suggest that the preferred relationships between the two constituents are condition and consequence (including a concessive relation), and purpose and requisite (Matsumoto 1988a,b).

Example (10) illustrates the NH-type.

- 10) [[kane o nusunda] zizitu] ga akirakaninatta
 money ACC stole fact NOM became clear
 'the fact that (he) stole the money became clear'

Because of its semantic content, zizitu 'fact' would not normally index a participant role (for instance that of the "thief") in the frame evoked by nusunda 'stole'. Instead, zizitu 'fact' is a "frame-evoking" noun; it evokes a (simple) frame in which it labels or encapsulates a proposition expressed in the adnominal clause. This characteristic of the head noun allows it to provide the host frame for the entire construction.

The complex NPs in (11) - (13) are also of NH-type.

- 11) [[kame ga taroo o tasuketa] hanasi] o
 turtle NOM Taro ACC rescued story ACC
 yonda.
 read
 '(I) read the story (that/in which) a turtle rescued Taro.'

- 12) [[siri-tai toiu] yoku] ga aru.
 want-to-know COMP desire NOM exist
 '(One) has the desire to know.'
- 13) kinoo tabesugita node [[kyoo nanimo
 yesterday overate because today anything
 taberarenai] kekka] ni natta.
 cannot eat result DAT became
 'Because (I) overate yesterday, it became the
 result that (I) cannot eat anything today.'

(12) includes a so-called complementizer toiu, literally meaning 'say that', which, I claim, functions to mark what is expressed in the complement clause as a quasi-quotation. In this sense, toiu is not exactly like the English complementizer that. I will mention more-or-less equivalent English constructions later on in this paper.

Finally, the CNH-type is illustrated by example (14).

- 14) [[kinoo tabesugita] kekka], kyoo nanimo
 yesterday overate result today anything
 taberarenai.
 cannot eat
 '(As) a result (of) having overeaten yesterday,
 (I) cannot eat anything today.'

The head noun kekka 'result' in (14) participates as the result of the action in the frame evoked by tabesugita 'overate'. On the other hand, kekka 'result' is what we may call a "relational noun": it evokes a frame which has a slot for a concept relational to it; here, the cause of the result. The modifying clause describes the cause. Thus the modifying clause and the head noun in (14) host reciprocally. Examples (15) to (17) are also illustrative of the CNH-type.

- 15) [[tabako o katta] oturi]
 cigarette ACC bought change(=balance of money)
 'the change (from) buying cigarettes'
- 16) [[katana de kitta] kizu]
 sword with cut wound/scar
 'the wound/scar (from being) cut with a sword'
- 17) [[sakana o yaku] nioi] ga suru.
 fish ACC grill smell NOM there is
 'there is a smell (of) grilling fish'

2. CORRESPONDING CONSTRUCTIONS IN KOREAN AND CHINESE

A preliminary survey suggests that the type of analysis that I have sketched above may be applicable

also to clausal noun-modifying constructions in Korean and in Chinese. Korean and Chinese, although differing from Japanese in that there is a morpheme marking embedded clauses, share the characteristic with Japanese that noun-modifying constructions lack overt indications of the semantic relationship between the two constituents. There are Korean and Chinese constructions falling into each of the three types that I discussed in connection with Japanese, although the appropriateness for Korean and Chinese of this tripartite classification needs to be examined more thoroughly. The following are Korean and Chinese constructions corresponding to the complex NPs of (9), (11) and (16) above.

- 9K) [[son ũl anssissədodö -nŭn] gansig]
hand ACC O.K. not to wash -NON PAST.Rel snack
- 9C) [[buyong xishou de] lingshi]
need-not wash-hand NOM snack
'a snack (in order to eat which) (I/you..) don't have to wash (my/your..) hands'
- 11K) [[gəbugi ga toki rŭl igyæssda nŭn] iyagi]
turtle NOM hare ACC won COMP story
'the story (that/in which) a turtle defeated a hare.'
- 11C) [[niulang zhinŭ qiyue giri xianghui
herd-boy weaver-girl July 7th meet-together
de] gushi]
NOM story
'the story (that/in which) the herd boy and the weaver girl meet on July 7th.'
- 16K) [[khal lo ccilu-n] sangchə]
knife with stab-PAST.Rel scar
- 16C) [[dao ge de] shang/shangba]
knife cut NOM wound/scar
'the wound/scar (from being) cut with a knife'

Constructions such as (9) and (16), which are problematical to purely syntactic or structural analyses and which might have seemed to be peculiar to Japanese, are also possible in Chinese and Korean. There is, however, variation among these three languages in terms of what relations can be expressed by noun-modifying constructions in which there is no structural clue to the relation. For instance, the analogue in Korean of (8) is acceptable, while that in Chinese is not.

- 8K) [[məri ga johaji-nŭn] chaeg]
head NOM gets better-NON PAST.Rel book
'the book (by reading which) (one's) head gets

better'

8C)*[[tou bian congming de] shu]
 head become smart NOM book

3. JAPANESE-STYLE NOUN MODIFICATION IN ENGLISH

A reliance on semantics and pragmatics is not confined to "exotic" languages such as those I mentioned above. While English relative clauses are largely governed by syntax, and the category "relative clause" is structurally distinguishable from "noun complement clauses", there are some examples with varying degrees of acceptability that fall outside the standard analyses and that resemble the constructions I have been discussing from Japanese, Korean and Chinese. These examples are usually restricted to informal discourse, but are nonetheless acceptable to many speakers. Some examples that would, in the framework I outlined, be classed as Clause Host type, are the following. (23) and (24) are attested and (18) to (22) are elicited based on corresponding Japanese noun-modifying constructions.

- 18) This is the car where you feel energetic.
- 19) a TV program where you get depressed
- 20) Let me give you a tea where you get to sleep.
- 21) What was the homework where you couldn't come to the party?
- 22) I need a medicine that I can sleep.
- 23) Takes a while to get in the frame of mind that you have these things.
- 24) Here is a snack that/where you don't have to wash your hands.

Note that one of the examples, (23), is a variant of a 'regular' syntactically governed relative clause (i.e. ...frame of mind in which you have these things). In others, such as (24), where or that substitutes for a complex expression (i.e. a snack in order to eat which... or, as in (19), the TV program because of watching which ...).^{2,3} In terms of the Gricean principle (1975) of conversation, the Maxim of Quantity is violated in these examples, in that the structure does not determine the semantic relation between the two constituents, while the Maxim of Manner may be said to be followed, in that the construction is more succinct than a more explicit expression. It does not seem possible that the construal of such examples can be explained in purely syntactic/structural terms. Ideas such as frame and world-view seem to be required.

There are also constructions in English that are

analogues of certain NH-type constructions in Japanese. These are illustrated by attested examples (25)-(28).

- 25) ...one that terminates the interchange in a grumble, a meager excuse, a face saving I-can-take-a-joke laugh, or...
- 26) ...we meet two these-boots-mean-I'm-a-cowboy-type guys, who wink at us and ...
- 27) your sleepy just-out-of-bed voice is ...
- 28) ..., waiting for a call for the "Mary Beth-arrives-home-and-is-besieged-by-the-press" scene,...

A structural peculiarity of these English examples is immediately evident: the construction consists of a modifying clause preceding a noun. These are most comparable to Japanese constructions of NH-type with toiu, literally meaning 'say that', an example of which is given in (12). The modifying clause of both the English and the Japanese constructions of this type expresses the content or the manner of what is denoted by the head noun as if it were a quote. If, for example, (25) were to be paraphrased, it would be something of the sort; 'a laugh that can be described as indicating (or saying) that I can take a joke'. As with many of the Japanese examples we have considered, expressions of the sort (25) would be used when succinctness is valued more than maximum clarity. In Japanese, while the corresponding constructions are structurally regular for the NH-type, they are distinguished by the property that their head nouns are not content-taking nouns.

As we have just seen, certain clausal noun-modifying constructions in English show similarities to those found in Japanese. To that extent, the framework devised to analyze the Japanese constructions is of use also in discussing the English counterparts. Where this framework can find its greatest use, however, is in the analysis not of clausal modification but of Noun + Noun compounds in English. In fact, the variety of semantic relations that can hold between the two constituents of N+N compounds in English makes the Japanese noun-modifying construction seem tame by comparison, as witness compounds such as Bible Bed used as a title of a news story on Jessica Hahn, and Flea Products for products to prevent or to get rid of fleas.

N+N compounds have been discussed by, for example, Zimmer (1971), Downing (1977), Levi (1978) as well as by researchers in AI, such as Sowa (1987). Interest-

ingly enough, Sowa's analysis is in terms of types of frames, and he divides N+N compounds into four classes depending on the relationship between the meaning of the whole and the frames evoked by the two nouns.⁴

4. CONCLUSION

The examples discussed in this paper suggest that the semantic notion of frames and the pragmatic notion of world-view can form the basis of an analysis of a variety of constructions from diverse languages in situations in which the construal is not guided by the syntax but by the clues given by the individual lexical items and by the hearer's extra-linguistic knowledge. Moreover, they illustrate the importance of semantic/pragmatic considerations even in languages which are often thought to be controlled by syntax.

NOTES

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1. I owe this description of the English relative clause construction to Charles Fillmore.
2. There are also attested examples that indicate a violation of island constraints as in the following.
 - a) Then you look at what happens in languages that you know and languages that you have a friend who knows. (Cited by J. McCawley 1981)
 - b) He gave a talk which I should go home and study the hand out. (Observed by Knud Lambrecht)
 - c) All they have is a post office box which if you send mail to, it doesn't come back marked "undeliverable". (Observed by Pamela Downing)
3. Paul Kay pointed out that the expression such that in mathematical language is an equivalent of that, or where.
4. Sowa's classification and examples are as follows.
 - a) The head noun (supplies the frame):
philosophy teacher, jewelry thief, dog house
 - b) The modifying noun: mother hen, pet cat,
maintenance man, discussion topic
 - c) Both: employee compensation, bus ticket, discus-
sion leader
 - d) Neither: gold bar, cat people

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