Headless Relative Clauses in Modern Japanese and the Relevancy Condition
Author(s): S.-Y. Kuroda
Proceedings of the 2nd Annual Meeting of the Berkeley Linguistics Society (1976), pp. 269-279

HEADLESS RELATIVE CLAUSES IN MODERN JAPANESE AND THE RELEVANCY CONDITION

S.-Y. KURODA
University of California, San Diego

It has generally been assumed that 'a relative clause [in Japanese], whether restrictive or nonrestrictive, consists of a truncated sentence' followed by the head noun phrase it modifies. (McCawley 1972) Recently I discussed headless relative clauses in classical Japanese. (Kuroda 1974) Sporadic mention has been made to headless relatives in modern Japanese without identifying them as such. (E.g. Mikami 1957, Mathias 1974) But there has not been a systematic treatment of this phenomenon.[1] Formally, a headless relative in modern Japanese takes the following form:

(1) $((\ldots\ldots\ V\text{-}u)_S\text{-}\underline{no})_{NP}$

where V is a predicate (i.e. verb, adjective, etc.), u is a mark for the ending of a predicate traditionally called the rentai (adnominal) form and no is a nominalizing complementizer. The form (1) can be embedded in another sentence and occupy a noun phrase position in the sentence; typically it is followed by a case-marker. A noun phrase (or, in the case of a split pivot, a set of noun phrases--see below example (32)) contained in the embedded S of (1) assumes, in the matrix sentence, the grammatical function determined by the noun phrase position that (1) occupies, typically predictable from the case marker attached to the end of (1). This noun phrase (or, set of noun phrases) contained in S may be called the pivot, or semantic head, of the headless relative clause. For example, from the sentence:

(2) ringo ga sara no ue ni atta.
apple plate on be (p.)
'There was/were an apple/apples on a plate/plates.'

one may form[2]

(3) Tarô wa ringo ga sara no ue ni atta no o totte, poketto ni ireta. (totte 'take, pick up', ireta 'put in')
'Taro picked up an apple which was on a plate and put it in a pocket.'

A difficulty with the headless relative construction in Japanese, however, is that if one freely applies the general formula and constructs a sentence with a headless relative clause, one is likely to end up with a sentence that the native speaker would not accept. For example, take

(4) Hanako ga kinô ringo o katta.
'Hanako bought an apple/apples yesterday.'

and embed this into the matrix of (3):

(5) Tarô wa Hanako ga kinô ringo o katta no o totte,...

This form should mean 'Tarô picked up an apple which Hanako had bought yesterday and...' but it would be a piece of fortuitous good luck if one's informant accepted it. Kuroda (1974) did not have to face this problem of frequent unacceptability, since there is no way of extrapolating from the existing literature in classical Japanese to possible unacceptable examples. For modern Japanese I simply made a vague reference to 'marginality, in a certain sense,' of headless relatives. But I now believe that there is a fairly good way to characterize the acceptability of headless relatives in modern Japanese. My claim is that for a headless relative clause to be acceptable, it must satisfy what I will call the relevancy condition:

(6) THE RELEVANCY CONDITION: For a headless relative clause to be acceptable, it is necessary that it be interpreted pragmatically in such a way as to be directly relevant to the pragmatic content of its matrix clause.

For example, in (3) the relative clause gives a sufficient condition for an apple to be found at some place from where Tarô could pick it up, but in (5), the content of the relative clause does not have this kind of direct relationship with the meaning of the matrix sentence. In contrast, headed relativization is not subject to such a semantico-pragmatic constraint. With the same matrix as (3), (4) as well as (2) yield perfect sentences if headed relativization is used instead of headless relativization:

(7) Tarô wa sara no ue ni atta ringo o totte,...
(8) Tarô wa Hanako ga kinô katta ringo o totte,...

I will discuss several examples to justify the relevancy condition, and comment on some consequences from the existence of this condition.

Note that in order for the above justification for direct relevancy of (2) in (3) to be valid, it is necessary that (2) be interpreted as 'simultaneous' with the time reference of the matrix clause. In fact, the following sentence is not acceptable:

(9) #Tarô wa kesa, ringo ga kinô sara no ue ni atta no o totte,...
(kesa 'this morning')

In contrast, (7) with a headed relative clause does not require 'simultaneous' interpretation of the constituent and the matrix clauses; (7) is potentially ambiguous in this respect, and there is nothing wrong with

(10) Tarô wa kesa, kinô sara no ue ni atta ringo o totte,...
'Taro picked up this morning an apple which had been on a plate yesterday, and...'

Next, compare the following two sentences:

(11) Tarô wa Hanako ga ringo o sara no ue ni oita no o totte,...
(oita 'put')
'Taro picked up an apple which Hanako had (just) put on a plate.'

(12) #Tarô wa Hanako ga kinô ringo o sara no ue ni oita no o totte,...
'Taro picked up an apple which Hanako had put on a plate yesterday.'

(11) is acceptable, but only with 'simultaneous' interpretation. The constituent verb is interpreted with the perfective aspect with respect to the time reference of the main verb. In (12) such 'simultaneous' interpretation is blocked due to the presence of the time adverb kinô in the constituent clause. In (11) the constituent and the matrix clauses express two subevents of a continuum of events, while in (12) such intrinsic connection does not exist between the two events represented by the constituent and the matrix clause; Hanako's having put apples on a plate yesterday does not guarantee that they remain there until today, ready to be picked up by Tarô. Headed relativization does not impose 'simultaneous' interpretation on us. Hence

(13) Tarô wa Hanako ga kinô sara no ue ni oita ringo o totte,...
'Tarô picked up an apple which Hanako had put on a plate yesterday and...'

is a natural sentence, and

(14) Tarô wa Hanako ga sara no ue ni oita ringo o totte,...
'Tarô picked up an apple which Hanako had put on a plate, and...'

is open to 'simultaneous' and 'nonsimultaneous' interpretation.

But 'simultaneous' interpretation of the constituent and the matrix clauses is not in general a necessary consequence of the relevancy condition, or put it differently, 'simultaneous' interpretation is not a necessary precondition for the relevancy condition to be satisfied. This point will be clear from our subse-

quent examples. What (3) and (11) show is that the particular semantic content of their constituent clause imposes 'simultaneous' interpretation on us in order to interpret them in conformity with the relevancy condition.

Now, compare unacceptable (12) with

(15) Tarô wa Hanako ga kinô ringo o sara no ue ni oite oita no o totte,...
'Tarô picked up an apple which Hanako had put on a plate yesterday with some later usefulness in mind which would result from her doing so.'

The surface difference between (12) and (15) is that we have oite oita in (15) instead of oita in (12). Here unfortunate homonimy, inessential to our main topic, is involved, which may be somewhat confusing for those who are not familiar with Japanese. Oita in (12) means 'put' (past or perfect), but oita in (15) is a semiauxiliary homonymous with this verb with an enigmatic semantic connotation, as the student of Japanese knows well. For the present purposes this connotation may be approximated by 'do something with later usefulness, convenience, etc. in mind.' The oite of oite oita in (15) is the conjugated form of the verb 'put' required by the semiauxiliary oita. Thus, the semantic difference between (12) and (15) is the semantic connotation of this semiauxiliary oita, however it might be characterized or translated. But this difference makes (15) acceptable. A natural interpretation of (15) suggests that Hanako put apples in a plate as she was aware that the effect of her act would later be beneficial for Tarô in some way or other. Perhaps Tarô takes an apple with him everyday for lunch, etc. Thanks to the semiauxiliary oita such a connotation is easily read in with (15), and that makes the constituent of (15) directly relevant to the matrix. The event represented by the former is purposively related to the event expressed by the latter.

A purposive connection like this is not an absolute necessity for (15) to be accepted, however. Simply the possibility of such a connection provides us with an 'easy' way to accept (15), thus making us feel immediately that (15) is a perfectly 'acceptable' sentence. A more elaborately fabricated pragmatic assumption on the individuals involved may also make (15) acceptable in a different, 'less natural' way. Hanako might have put an apple on a plate with her own later convenience in mind, and Tarô, knowing it, might have picked it up and removed it on purpose, as he was always mean to Hanako. In this interpretation the event corresponding to the relative clause, or Tarô's knowledge of it, gives him a motivation for his action represented by the

matrix clause; the former is motivationally related to the latter.

In contrast, the sentence with the corresponding headed relative clause:

(16) Tarô wa Hanako ga sara no ue ni oite oita ringo o totte,....

does not, I believe, require any such direct relationship between the two events in question. The fact that Hanako put apples on a plate may be mentioned only for the purpose of identifying those apples.

The semantics of oita precludes the possibility of 'simultaneous' interpretation of the relative clause in (15) as well as (16). However, (15), but not (16), requires 'co-positional' interpretation. By this I mean that the two events represented by the constituent and the matrix clause involve the same physical location. Thus, in acceptable interpretation of (15) Tarô must have picked up an apple from the plate Hanako had previously put it on, but not necessarily so with (16). This is another consequence of the way the relevancy condition makes (15) acceptable.

Mere possibility of colocationality, however, is not sufficient to make a headless relative acceptable. Recall the unacceptable (12).

The sentence

(17) ?Tarô wa Hanako ga (kinô) ringo o katte oita no o totte,....
'Taro picked up an apple which Hanako had bought yesterday with some later use of it in mind.'

seems to sound more acceptable than (5), but not so good as (15). The relative clause can be purposively or motivationally related to the matrix clause in (17) as in (15), but neither simultaneity nor co-locationality may be established with (17). Apparently intentional and physical connections between the two events involved in (15) reinforce each other to make it 'very' acceptable.

Let us observe some more examples. Compare (18) and (19):

(18) Tarô wa Hanako ga osoikakatte kita no o nejihuseta.
approach-to-attack floor-and-hold-down
'Tarô floored and held down Hanako, who had approached him to attack.'

(19) #Tarô wa Hanako ga harubaru tazunete kita no o nejihuseta.
a-long-way visit come
'Tarô floored and held down Hanako, who had come a long way to visit him.'

Being attacked gives you a natural motivation to floor and hold down the attacker; someone's having come a long way to visit you is not likely to give you a good motivation for a violent re-

action. (19) sounds unacceptable. It can perhaps be made acceptable only, if at all, with fabrication of an elaborate pragmatic assumption about the personal relationship between Tarô and Hanako. In contrast to (19),

(20) Tarô wa Hanako ga harubaru tazunete kita no o genkan de opparatta.
house-entrance turn-away
'Taro turned Hanako away at the entrance of his house, who had come a long way to visit him.'

sounds natural.

In the preceding examples the two events represented by the relative and the matrix clause constitute, so to speak, a superordinate event either in the physical world, thanks to simultaneity or colocationality, or in the consciousness of a protagonist in the sentence, thanks to purposiveness, motivation etc. But the two events may only be related by the speaker/hearer from outside the world described by the sentence. For example, consider

(21) Tarô ga Hanako ga ringo o katte oita no o tabete shimatta.
eat complete
'Tarô ate up the apple which Hanako had bought for some purpose.'

Tarô may not know that the apple he ate had been bought by Hanako for some specific purpose, and Hanako may not know that Tarô ate the apple. Only the speaker/hearer knows/understands that Tarô's action interfered with Hanako's intention.

The relevancy condition for headless relatives in modern Japanese is another example of the general phenomenon that pragmatics may be involved in acceptability judgement of sentences. The rôle of pragmatics in acceptability is, however, especially remarkable in this case, because of the minimal formal contrast between headless and headed relative clauses. Syntactically each of them is characterized as a relative clause by the fact that (the referent of) a noun phrase in it (the pivot) assumes double grammatical functions, one determined inside the relative clause and the other by the noun phrase position of the matrix sentence, the position in which the relative clause is embedded. No other syntactic device or element of possible semantic import, for example, a conjunction, is involved in connecting the constituent and the matrix sentence. The only formal difference between headed and headless relativization is that in the former the pivot noun phrase is overtly recognizable as identical with the head and its grammatical function inside the relative clause recoverable from the truncated slot, while in

headless relativization the pivot is not syntactically marked, and consequently, as will be illustrated later, ambiguity may result as to which noun phrase contained in the relative clause is its pivot. No special morpheme or grammatical mark is involved in headless relativization whose semantic content might be assumed to be responsible for pragmatic peculiarity of headless relative clauses.

The relevancy condition requires a headless relative clause to be interpreted as related to the matrix sentence with, one may say, some adverbial relation. A headless relative clause may hence be said to function at the same time as a noun phrase and as an adverbial clause of a sort. But the particular adverbial connotation one reads into on each specific occasion is neither inherent to the headless relative construction, nor can it even be determined solely from the semantic contents of the constituent morphemes. Pragmatic knowledge about the individuals involved in the represented events can be indispensable for determining the nature of this adverbial connotation.

In the respect that in the process of semantic/pragmatic interpretation a syntactic construction can be loaded with a variety of adverbial meanings or connotations of a sort not necessarily (at least easily) made distinct, the Japanese headless relative construction may be compared with the gerund construction in English. Thus, for example, compare (3) and (15) with the perhaps permissible

(22) An apple being on a plate, John picked it up,...
(23) Mary having put an apple on a plate for later use, John picked it up...

Once the nature of the acceptability condition of headless relative clauses is exposed, we do not have to worry about their 'marginality' of an uncertain kind hinted at in Kuroda (1974). We can assume that formula (1) represents a productive, general syntactic process in modern Japanese, and can now safely embark on the descriptive study of this process. Here I will only briefly mention three properties characteristic of headless relative clauses.

First, a headless relative clause can in principle be ambiguous as to which noun phrase contained in it is interpreted as its pivot, i.e. as its semantic head. Consider:

(24) Sono omawari wa gakusei-tachi ga CIA no supai o kumihuseta
the cop students spy hold-down
no o uchi-koroshita.
shoot-and-kill

'The cop shot and killed the { students who held down the / CIA spy who the students } CIA spy.' / held down.'

As the translation suggests, either the subject (the students) or the object (the CIA spy) of the constituent sentence can be the object of the matrix verb.

As in other cases of ambiguity, this ambiguity inherent to the headless relative construction is often dissolved in actual occurrences of this construction thanks to syntactic, semantic, and/or pragmatic constraints. So, for example,

(25) Tarô ga ringo o katte oita no ga têburu no ue ni aru.
'On the table there are apples which Tarô bought for some purpose.'

illustrates syntactic disambiguation; the matrix verb aru requires an inanimate subject and as a consequence ringo, but not Tarô, can be the pivot of the headless relative clause in (25). Or consider:

(26) Wareware wa ryôshi-tachi ga sakana o hune de oikonde
we fishermen fish boat drive-in
kita no o teibo no ue kara tsutta.
come embankment from fished-for
'From the embankment we fished for the fish which the fishermen drove in with boats.'

The object of the verb 'fish' must be fish, not fishermen; the pivot of the relative clause of (26) cannot be ryôshi. This is a case of semantic disambiguation. Next

(27) Wareware wa Tarô ga tai o tsutte kita no o minnade tabeta.
red-snapper all
'We together ate redsnapper which Taro had caught.'

is pragmatically disambiguated, as we eat redsnapper but would not eat Tarô, even though semantically possible. Headed relativization with the head Tarô thus results in pragmatic anomaly:

(28) Wareware wa tai o tsutte kita Tarô o tabeta.
'We ate Taro, who had caught redsnapper.'

Now consider

(29) Tarô wa Hanako ga bimbô na gakusei o shôkai site kita no
poor student introduce
o yatoi-ireta.
hire

The strongly preferred, if not the only possible, interpretation of this sentence takes 'poor student' as the pivot, i.e., as the object of 'hire': 'Tarô hired a poor student who Hanako sent over to him with her recommendation.' However, if we convert the headless relative clause of (29) into a headed one with Hanako as its head, the resulting sentence:

(30) Tarô wa bimbô na gakusei o shôkai site kita Hanako o yatoi-ireta.
'Tarô hire Hanako, who had sent a poor student over to him with her recommendation.'

does not, I believe, show pragmatic anomaly as (28) does. Hanako could have introduced the student to Tarô sometime ago, or she could have introduced the student to Tarô with whatever possible aim in mind other than getting him hired. For (30) to be interpreted, no inherent connection between Hanako's action of introducing a student to Tarô and Tarô's action of hiring her is required. In contrast, for (29) to be acceptable, the two events must be understood as components of a superordinate event. Thus, although it might be possible to fabricate a context in which (29) can be accepted with Hanako as the pivot, the only natural way to accept (29) in isolation is to take 'poor student' as the object of 'hire', because usually A sent B to C with A's recommendation for the purpose of B's (and not A's) getting hired, or because usually A's recommendation of B to C is supposed to give C a motivation to hire B. Thus, in the practical sense, (29) is disambiguated by the relevancy condition for headless relative clauses. This fact is the second point I want to note as a characteristic of headless relativization.

Incidentally, this disambiguating effect of the relevancy condition can be weakened or annulled with small change in lexical items involved. Thus,

(31) Taro wa bimbô na gakusei ga kirei na onna no ko o shôkai
pretty girl
site kita no o yatoi ireta.

In a sexist, capitalist society little imagination is required to come up with a situation in which (31) is understood with 'poor student' as the pivot, and another in which 'pretty girl' is taken as the pivot.

The third and final fact that I would like to note here about a headless relative clause is that it can have a 'split pivot.' In the following example both the subject and the object of the relative clause assume the grammatical function 'the subject of' the matrix verb. The 'floating' quantifier hutaritomo 'both two'

makes this point clear:

(32) Junsa ga dorobô o kawa no hô e oitsumete itta no ga
policeman thief river toward track-down want
ikioi amatte hutaritomo kawa no naka e tobikonda.
power exceed both-two river in jump-in
'A policeman was tracking down a thief toward the river,
who both, losing control, jumped into the river.'

I must leave detailed discussions of these facts and others that have interesting implications for the description of related areas of Japanese syntax for later occasions.

NOTES

1. Except for Wenck (1974), which I have had occasion to see only recently and with which, I regret to say, I am not yet sufficiently familiar to make definitive comments. Our notion 'headless relative clause' (or, in the terminology of Kuroda 1974, pivot-independent relative clause) must be compared with Wenck's 'nachgestellte Attributivsatz.' But the range of phenomenon to be conceived under Wenck's NA is both narrower (since for NA's the pivot is in principle at initial position, though Wenck recognizes a certain type of exception--I must quickly add, however, that this limitation could well reflect the reality in classical Japanese that we can reconstruct from the existing literature) and broader (because I now believe that the construction with the particle no must be treated separately--in this respect my own former treatment of classical Japanese also deals with a broader range) than the range here intended to be covered by the notion 'headless (or, pivot-independent) relative clause.' The term 'nachgestellte Attributivsatz' seems also to imply a grammatical analysis different from mine even where the same data are in question.

2. I believe it's appropriate to state that headless relative clauses are 'nonrestrictive' in a certain semantic sense, which, however, does not coincide with the formal sense generally understood in English grammar; an English relative clause without 'comma' intonation can be nonrestrictive in our sense when its head is an indefinite noun. See Kuroda (1974) 1.1.3. The reader of Kuroda (1974) should also note that I now believe we should exclude the construction with no from the headless (pivot-independent) relative clause--the construction which I assumed to be 'restrictive' in classical Japanese. Cf. also note 1.

REFERENCES

Kuroda, S.-Y. (1974), Pivot-independent relativization in Japa-

nese (I). Papers in Japanese Linguistics. Vol. 3.
Mathias, G. B. (1974), Review of S. Kuno: The structure of Japanese. Language Sciences 32.
McCawley, J. D. (1972), Japanese relative clauses. P.M. Peranteau et al. eds., The Chicago Which Hunt. Chicago Linguistic Society.
Mikami, A. (1957), Zoku Gendaigoho Josetsu. Tokyo.
Wenck, G. (1974), Systematic Syntax des Japanischen, 3 Bde. Franz Steiner Verlag. Wiesbaden.