

ON COMPARATIVE *yor*⁽¹⁾

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Comparative particle *yor* '(more) than' must be attached to a single constituent (McCawley and Momoi 1986). While (1a) is acceptable, (1b) is not, and that is because *yor* in (1b) is attached to a non-constituent *Ziro ga zisin* 'Ziro (of) earthquake'. This constraint will be called "Single Constituent Constraint".⁽²⁾

(1) a. Taro wa [Ziro yori] hebi wo kowagaru.

'Taro is more afraid of snakes than Ziro is.'

b. *Taro wa [Ziro ga zisin (wo) yori] hebi wo kowagaru.

'Taro is more afraid of snakes than Ziro is of earthquakes.'

In (2), comparative particle *yor* 'than' is attached to NP *zisin* 'earthquake', and *zisin yori* is an adverbial modifying the following V (VP in the standard theory).

(2) John wa [V zisin yori (V hebi wo kowagaru)].

'John is more afraid of snakes than of earthquakes.'

Where a V (a constituent of category V) is an S minus the subject NP, i.e. a verb phrase.

(3) has the same structure as (2), but it is ambiguous between the two readings given.

(3) John wa [V (V-V Ziro yori) hebi wo kowagaru].

'John is more afraid of snakes than Ziro is.'

'John is more afraid of snakes than of Ziro.'

Where a V-V is an adverbial that modifies a V. "V-V" here is equivalent to "VP adverb".

It is only because we know that earthquakes cannot be afraid of snakes that (2) sounds unambiguous. In the above examples, the *yor*i phrase is an adverbial that modifies the following V.

We have also examples like (4), in which *yor*i is attached to a V.

- (4) John wa [V-V (V hebi wo kowagaru) yori] [V zisin wo kowagaru].
'John is more afraid of earthquakes than of snakes.'

In (5), the *yor*i phrase is attached to an S though it sounds slightly unnatural because of redundancy.

- (5) Taro wa [V-V (S Ziro ga zisin wo kowagaru) yori] [V hebi wo kowagaru].

'Taro is more afraid of snakes than Ziro is afraid of earthquakes.'

Examples like (5) indicate that the ambiguity of sentences like (3) can be explained by underlying structures like (6), in which *yor*i is attached to an S rather than to an NP.

- (6) a. John wa [V-V (S Ziro ga ev_1) yori] [v_1 hebi wo kowagaru].

'John is more afraid of snakes than Ziro is.'

Where ev_1 is a zero proform whose antecedent is *hebi wo kowagaru* 'be afraid of snakes' of the matrix sentence.

- b. John wa [V-V (S e_j Ziro wo e_k) yori] [V hebi wo kowagaru].

'John is more afraid of snakes than of Ziro.'

Where e_j , e_k are zero proforms referring to *John*, *kowagaru* 'be afraid of', respectively.

Ga-Wo Deletion will delete the case-markers *ga*, *wo* which are directly before another particle *yor*i in spite of the intervening zero proform ev_1 or e_k .

(1b) is, therefore, analyzed as in (7), in which *yor*i is attached to a single constituent S.

- (7) *Taro wa [V-V (S Ziro ga zisin (wo) e_k) yori] [V hebi wo

kowagaru].

'Taro is more afraid of snakes than Ziro is of earthquakes.'

Where e_k is a zero proform that refers to adjective *kowagaru*.

The same can be said about (8), in which the *yor*i phrase modifies a TV (a transitive verb (phrase)).

- (8) *Taro wa hebi wo [TV-TV (S Ziro ga zisin (wo) e_k) yori] [TV kowagaru].

'Taro is more afraid of snakes than Ziro is of earthquakes.'

Where a TV-TV is an adverb that modifies a TV. A TV is a transitive verb (phrase) that takes a To as its object. A To is an accusative case NP, i.e. an NP followed by case marker *wo*. A TV together with the preceding To forms a V. Every V-V also functions as a TV-TV, and vice versa.

But the Single Constituent Constraint on *yor*i ignores zero proforms, and rejects (7) (8) because *Ziro ga zisin* 'Ziro of earthquakes' is not a constituent without the zero proform e_k .

It is clear from the above examples that even where comparative *yor*i appears to be attached to an NP as in (1) (2) (3), or to a V as in (4), it is actually attached to an S. Semantic considerations also support this hypothesis. *Yori* compares two sentences on some dimension of property. It cannot connect just any pair of sentences (or V's) as in (9)-(12).⁽³⁾

- (9) a. *[S Bukka ga sagaru] yori sensoo ga owatta.

'Prices went down rather than the war ended.'

Where *owatta* 'ended' is morphologically *owar ta*.

- b. *Senseo wa [S bukka ga sagaru] yori owatta.

- (10) a. *Kono mati ni (wa) [S Tokyo ni zisin ga aru] yori taihuu ga kita.

'This town had a typhoon rather than Tokyo had an earthquake.'

- b. *Kono mati ni (wa) [V zisin ga aru] yori taihuu ga kita.

'This town had a typhoon rather than an earthquake.'

- (11) a. ?*[S Taro ni rosiago ga dekiru] yori Ziro ni huransugo ga dekita.

'Ziro spoke French rather than Taro spoke Russian.'

- b. ?*Ziro ni wa [S Taro ni rosiago ga dekiru] yori huransugo ga dekita.
 (12) a. *[S John ga Tokyo ni iku] yori Taro ga New York ni itta.
 'Rather than for John to go to Tokyo, Taro went to New York.'
 Where *itta* 'went' is morphologically *ik ta*.
 b. *Taro wa [S John ga Tokyo ni iku] yori New York ni itta.

(9)-(12) are semantic anomalies because they do not have any clear property (or modality) dimension on which the two sentences can be compared. Some of them become a little better if the tense is changed to non-past. That is because non-past tense may add to them an implicit modality dimension of desire, hope, expectation, etc.

If we add a modality dimension to the above sentences by embedding them in a sentence indicating desire, hope, etc., they become acceptable. For example, though (9a) is bad, (13a), which contains (9a), is fully acceptable.

- (13) a. Boku wa bukka ga sagaru yori sensoo ga owatte hosii.

'I want the war to end more than for prices to go down.'

- b. *Boku wa [S (S bukka ga sagar) yori (S sensoo ga owar)] hosii.

Since (9a) is unacceptable, (13a) cannot have the structure of (13b), which embeds (9a). Note that (13a) does not compare "the end of the war" with "the fall of prices", but compares the speaker's desire for the end of the war with his desire for the fall of prices. It asserts that the first desire is stronger than the second desire. Both *Bukka ga sagaru* 'Prices go down,' and *Sensoo ga owaru* 'The war ends,' must be within the scope of *hosii* 'want'. (13a) should derive from (13c).

- (13) c. Boku wa [V.V (S e_b [S bukka ga sagar] e_h) yori] [V (S sensoo ga owar) (S-V hosii)].

Where e_b, e_h are zero proforms whose antecedents are *boku* 'the speaker', *hosii* 'desire', respectively. An S-V forms a V together with the preceding S. *Sensoo ga owatte hosii* 'want the war to end'

is a V.⁽⁴⁾

For the same reason, (14a)-(16a) are considered to derive from (14b)-(16b).⁽⁵⁾

(14) a. [(Tokyo ni zisin ga aru) yori] kono mati ni taihuu ga kuru hoo ga masida.

'It would be better for this town to have a typhoon than for Tokyo to have an earthquake.'

b. [S-S (Tokyo ni zisin ga aru) e_m] yori [S (kono mati ni taihuu ga kuru) masida].

Where e_m is a zero proform that refers to the main clause predicate (*hoo ga masida* 'is (more) desirable'. *hoo ga* is assumed to be inserted by Complementizer Insertion. An S-S is a sentential adverb and modifies a sentence.⁽⁶⁾

(15) a. Boku wa Taro ni rosiago ga dekiru yori Ziro ni huransugo ga deki te hosii.⁽⁷⁾

'I want Ziro to know French more than for Taro to know Russian.'

b. Boku wa [V-V (S e_b [Taro ni rosiago ga dekiru] e_h) yori] [V (Ziro ni huransugo ga deki) hosii].

Where e_b, e_h refer to *boku* 'the speaker', *hosii* 'want', respectively. *Hosii* triggers insertion of complementizer *te*.

(16) a. John ga Tokyo ni iku yori Taro ga New York ni iku bekida.
'Taro should go to New York rather than John should go to Tokyo.'

b. [S-S (S [John ga Tokyo ni ik] e_b) yori] [S (S Taro ga New York ni ik) bekida].

Where e_b is a zero proform whose antecedent is *bekida* 'it should be the case that ...'.

Note that while the *yori* phrases of (13) (15) are V-V's, those of (14) (16) are S-S's and modify an S. The *yori* phrase of (17) is a TnV-TnV, i.e. an adverb that modifies a Tn-V.

(17) a. Boku wa John ni hakase ni naru yori ii onna to kekkonsite hosii.
 'I want John_j to marry a good woman more than for him_j to get a Ph. D.'

b. Boku wa John ni [_{TnV-TnV} ($e_b e_j$ [hakase ni nar] e_h) yori] [_{Tn-V} (v ii onna to kekkons) hosii].

Where e_b , e_j , e_h are zero proforms whose antecedents are *boku*, *John*, *hosii* 'desire', respectively. *Hakase ni naru yori* 'than to become a doctor' is an adverbial, and modifies *ii onna to kekkonsite hosii* 'want . . . to marry a good woman'. A Tn-V is a constituent that forms a V when combined with a Tn. A Tn is a dative case NP (i.e. an NP followed by case-marker *ni*).

Note that *hosii* in (17) is a V-TnV, and takes as its complements a V and a Tn (dative case NP).⁽⁸⁾

McCawley and Momoi (1986) also give examples like (18) as evidence for the Single Constituent Constraint on *yori*, and as evidence for existence of two distinct predicates (two-place predicate and three-place predicate) in *hosii* 'want'.

(18) a. Boku wa Taro ga New York ni iku yori, Ziro ga Los Angeles ni itte hosii.

'I want Taro to go to New York more than for Ziro to go to Los Angeles.'

b. *Boku wa Taro ni New York ni iku yori, Ziro ni Los Angeles ni itte hosii.

c. *Boku wa Taro ni New York ni iku yori, Ziro ga Los Angeles ni itte hosii.

d. ?Boku wa Taro ga New York ni iku yori, Ziro ni Los Angeles ni itte hosii.

These sentences can be analyzed, respectively, as in (19).

(19) a. Boku wa [_{V-V} ($s e_b$ [Taro ga New York ni ik] e_h) yori] [_V (Ziro ga Los Angeles ni ik) hosii].

- b. *Boku wa [v-v (s e_b Taro-ni [v NY ni ik] e_h) yori] [v Ziro-ni (v Los Angeles ni ik) hosii].
- c. *Boku wa [v-v (s e_b Taro-ni [v New York ni ik] e_h) yori] [v (s Ziro ga Los Angeles ni ik) hosii].
- d. ?Boku wa [v-v (s e_b [Taro ga New York ni ik] e_h) yori] [v Ziro ni (v Los Angeles ni ik) hosii].

While *Taro ga New York ni ik* 'Taro go to New York' is a constituent, *Taro ni New York ni ik* is not (if zero proforms are ignored). That is why (18b) (18c) are not acceptable. The Single Constituent Constraint does not see zero proforms. (18d) is much better than (18b) (18c) because it does not violate the Single Constituent Constraint on *yori*. However, the fact that e_h of (19d) is an S-V, while its antecedent *hosii* is a V-TnV makes (18d) worse than (18a).

Our tentative conclusion about *yori* phrases is that:

- (20) a. It is attached to a single constituent. It must be a constituent without including zero proforms. (This was pointed out by McCawley and Momoi (1986)).
- b. In the underlying structure, the sentences that it combines must refer to the same modality/property. The two sentences are compared on the dimension of that modality/property.
- c. *Yori* requires that the preceding verb/adjective (excluding intervening zero proforms) have the non-past tense morpheme.

References

- McCawley, James D. and Katsuhiko Momoi, 1986, "The constituent structure of *-te* complements", S. -Y. Kuroda, ed., 1986, *Working papers from the First SDF Workshop in Japanese syntax*, pp. 97-116.
- Muraki, Masatake, 1985, "Categorial analysis of passivization and reflexivization of Japanese", in Kazuko Inoue, 1985, ed. *Meikakude ronritekina nihongo no hyoogen: saishuuhookoku (Explicit and logical expressions of Japanese: final report of the project research)*, ICU, pp. 113-138.
- Muraki, Masatake, 1986a, "Syntactic categories in Japanese", *Educational Studies (Kyooiku kenkyuu)*, ICU, 28: 187-204.
- Muraki, Masatake, 1986b, "Some problems of *tearu* sentences in Japanese", *Educational Studies (Kyooiku kenkyuu)*, ICU, 28: 221-236.

Notes

- (1) This study was supported by the Ministry of Education Grant for Specially-Promoted Project Research, No. 60060001.
- (2) This example and some other examples are quoted (with some editing) from McCawley and Momoi (1986), which is a stimulating paper on the constituent structure of sentences with a *te*-complement.
- (3) Though English translation is given to each, they are actually semantically anomalous.
- (4) Comparative *yor*i requires the preceding verb (or adjective) to have non-past tense morpheme *ru*. It is a kind of complementizer whose insertion is triggered by *yor*i. The present discussion assumes that complementizers are inserted by Complementizer Insertion triggered by the main verb. We believe, however, that it can be adjusted to an analysis in which a complementizer is inserted by phrase structure rules, and in which choice of complementizers is controlled by strict sub-categorization features of the verb.
- (5) Examples (13) (15) (17) are borrowed from McCawley and Momoi (1986).
- (6) Alternatively, *masida* may be treated as a two-place predicate that takes two clauses as complements, one clause followed by *yor*i, the other clause followed by *hoo ga*. But that analysis is not adopted here.
- (7) (15a) is quoted from McCawley and Momoi (1986) though they do not analyze it as (15b).
- (8) In spite of many common features, [_S-*v* *hosii*] of (13) should be distinguished from [_V-*T_NV* *hosii*] of (17). They are both syntactically and semantically different, and neither can be derived from the other as is clear from examples like (i).
 - (i) a. John wa zisin ga okotte hosiku nakatta.
 ‘John did not want an earthquake to happen.’
 - b. John wa [_V (_S zisin ga okor) *hosii*] nakatta.

c. *John wa zisin ni okotte hosiku nakatta.

(ic) is possible only where the speaker believes *zisin* 'earthquake' to be an animate volitional being. By a general redundancy rule (ii), every V-V can also be used as TnV-TnV. (cf. Muraki 1985a, 1986a, 1986b)

(ii) [+V-V] → [+TnV-TnV, +TV-TV]