

## The Internal Structure of Japanese *Wh*-Phrases

Yasuyuki Fukutomi, Fukushima University

This paper investigates two less-studied interrogative sentences in Japanese: alternative questions and *wh*-scope marking questions, as illustrated in (1) and (2), respectively. I will argue that *wh*-phrases that occur in these constructions have a layered internal structure, each element of which is taken to correspond to a particular object in semantic representation in the form of the tripartite quantified structure.

In Japanese, unlike in English, the question with the NP disjunct *coffee or tea* in the object position cannot have an alternative question reading. The English example in (3) is ambiguous, giving either a yes-no question reading (3a) or an alternative reading (3b). The corresponding example in Japanese, on the other hand, has only a yes-no reading, as in (4). To obtain an alternative reading, an overt *wh*-phrase *docchi* ‘which’ must appear in addition to the associated NP disjunct, as illustrated in (1).

Next, the scope of a *wh*-phrase in Japanese is usually marked by a question particle such as *ka* (in an embedded clause (5a)) or *no* (in a matrix clause (5b)). In addition to the long-distance *wh*-question (5b), we have another question-forming strategy as in (2). The sentence in (2) consists of two clauses each containing a *wh*-phrase. A characteristic of this type of question is that its felicitous answer involves supplying the value for the *wh*-phrase *dare* like (5b). The contrast in (6) indicates that this type of question is not a sequence of questions or some kind of integrated parenthetical constructions. What is interesting here is that although the verb *omou* cannot take a question complement (5c), the sentence (2) requires a question as an embedded clause. In fact, if the embedded complementizer is changed into a declarative complementizer *-to*, the sentence is degraded as illustrated in (7). This reminds us of the obligatoriness of partial *wh*-movement in German as in (8). These considerations indicate that sentences like (2) belong to the same type of questions called “*wh*-scope marking” or “partial *wh*-movement” constructions. Other properties concerning “*wh*-scope marking” constructions such as “anti-locality”, the incompatibility with verbs selecting a question, and “negative-island” effect corroborate this point.

Both alternative questions and *wh*-scope marking questions display a peculiar word order restriction, as shown in (9) and (10), respectively. To derive the restriction, I propose the specific internal structure of relevant *wh*-phrases. Notice that the disjunctive phrase functions as a restriction that limits the presupposed set for the possible answers. Likewise the embedded clause in *wh*-scope marking constructions also limits the presupposed set for the possible answers. Now we can sketch the syntactic structure of the *wh*-phrase that reflects its semantics. First a variable (Nishigauchi 1986) is merged with the element that functions as a restrictor. Then a *wh*-operator that binds the variable, is merged. Following Watanabe (2006), I assume that there is a Case Phrase above the NP projection and below the DP projection, resulting in the structure in (11). I also assume that the restrictive phrase must move to the specifier of Case phrase for Case theoretic reasons. Then it intervenes between the licensing complementizer and the *wh*-word, as illustrated in (12), blocking the movement of the *wh*-word over the restrictor NP. The same holds true for the case of *wh*-scope marking constructions. Notice that when the restrictor NP does not contain a disjunctive phrase, the *wh*-phrase can be raised over the restrictor, as in (13), where the *wh*-phrase is linked to the following NP by genitive marker *-no*. We find further evidence for the blocking effect in right-dislocated structures. When the restrictor NP or CP is right-dislocated and removed from between the *wh*-phrase and its licensing complementizer, sentences become acceptable, as in (14).

In summary, assuming that the operator and the restrictor are configured, like (11), within a single *wh*-phrase, we can offer a unified account for both alternative and *wh*-scope marking questions. The analysis in this paper also lends an indirect support for Tsai (1999)’s proposal that licensing of Japanese *wh*-phrases occurs at the phrasal level. Although there remain many questions that cannot be addressed in this paper, the questions it raises are likely to lead us to a better understanding of the nature of *wh*-phrases in Japanese.

### Data

- (1) John-wa coffee ka ocha ka docchi-o nonda no  
John-TOP coffee or tea (or) which-ACC drank Q  
‘Which of these two things did John drink: coffee or tea?’

- (2) anata-wa John-ga dare-o aisiteiru ka doo omotteiru no?  
 you-Top John-Nom who-Acc love Q WH think Q  
 ‘Who do you think that John loves?’
- (3) Did John drink coffee or tea?  
 a. ‘Is it true or false that John drank any of these two things, coffee or tea?’  
 b. ‘Which of these two things did John drink: coffee or tea?’
- (4) John-wa coffee ka ocha-o nonda no?  
 John-TOP coffee or tea-ACC drank Q  
 ‘Is it true or false that John drank any of these two things, coffee or tea?’
- (5) a. anata-wa John-ga dare-o aisiteiru ka sitteiru.  
 you-Top John-Nom who-Acc love Q know  
 ‘You know who John loves.’  
 b. anata-wa John-ga dare-o aisiteiru to omotteiru no?  
 you-Top John-Nom who-Acc love COMP think Q  
 ‘Who do you think that John loves?’  
 c. \*anata-wa John-ga dare-o aisiteiru ka omotteiru.  
 you-Top John-Nom who-Acc love Q think  
 ‘You think who John loves.’
- (6) a. John-wa dare-o aisiteiru no? Anata-wa dou omou no?  
 John-Top who-Acc love Q you-Top WH think Q  
 ‘What do you think? Who does John love?’  
 b. \*anata-wa John-ga dare-o aisiteiru no doo omotteiru no?  
 you-Top John-Nom who-Acc love Q WH think Q  
 ‘Who do you think that John loves?’
- (7) \*anata-wa John-ga dare-o aisiteiru to doo omotteiru no?  
 you-Top John-Nom who-Acc love COMP WH think Q  
 ‘Who do you think that John loves?’
- (8) a. \*Was glaubst du dass sie wann gekommen ist?  
 WH think you that she when come is  
 b. Was glaubst du wann sie gekommen ist?  
 WH think you when she come is
- (9) \*John-wa docchi-o coffee ka ocha ka nonda no  
 John-TOP which-ACC coffee or tea (or) drank Q  
 intended: ‘Which of these two things did John drink: coffee or tea?’
- (10) \*anata-wa doo [John-ga dare-o aisiteiru ka] omotteiru no?  
 you-TOP WH John-NOM who-ACC love Q think Q  
 intended: ‘Who do you think that John loves?’
- (11) [DP [CASEP [WHP *wh*-operator [Restrictor NP ...] [variable ]]]]
- (12) a. [CASEP [NP koohii ka ocha] [WHP docchi [Restrictor NP *t*] variable ] CASE]  
 b. \* [CP OP... [CASEP [NP koohii ka ocha] [WHP docchi [Restrictor NP *t*] WH] CASE] ...COMP]
- (13) John-wa docchi-no-dessert-o tabeta no?  
 John-TOP which-GEN-dessert-ACC ate Q  
 ‘Which dessert did John eat?’
- (14) a. John-wa docchi-o nonda no, coffee ka ocha ka  
 John-TOP which-ACC drank Q coffee or tea (or)  
 b. anata-wa doo omotteiru no, [John-ga dare-o aisiteiru ka]  
 you-TOP WH think Q John-NOM who-ACC love Q

## References

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