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A Focus Semantic Analysis of Korean Questions*

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1. The Data: the Ambiguity of Korean *Wh*-words

Korean *wh*-words are known to be ambiguous: they have the indefinite reading and the *wh*-question word interpretation, the same *wh*-words corresponding to English 'who' and 'somebody', 'when' and 'sometime' and so on.¹² (S. J. Chang 1973, J.-W. Choe 1985, S. W. Kim 1989)

- (1) *Nwu(kwu)-ka* oass-ni?
who(person)-Nom came-Q?
'Who came? / Did anybody come?' (J.-W. Choe 1985)

It was noted in S. J. Chang (1973) and J.-W. Choe (1985) that pitch-accent plays a crucial role in disambiguating between the two readings, as illustrated below:

- (2)a. *NWU-ka* oass-ni?
wh(person)-Nom came-Q?
'Who came?'
b. *nwu-ka* OASS-ni?
wh(person)-Nom came-Q?
'Did anybody(somebody) come?'

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¹ All Korean *wh*-words exhibit this alternation, except for *way* 'why'.

² Korean also has a separate set of lexical items which are unambiguously indefinite in meaning. They are of the form *wh*-word+i(copula)+*nka*(Q complementizer), as in *mwukwu-i-nka* 'someone'.

Notice the different placement of prosodic focus. When the focus falls on the *wh*-words, they are interpreted as something similar to English *wh*-elements and the sentences will receive a *wh*-question interpretation; when it falls on the verb instead, the *wh*-words will be interpreted as indefinites and the whole sentence turns into a yes-no question. Note that in a sentence with a declarative complementizer, not an interrogative one, *mwu-ka* is forced to receive the indefinite interpretation:

- (3) *mwu-ka* *oass-ta*
 wh(person)-Nom came-Dec
 'Somebody came.'

Korean *wh*-question phrases are in situ, and no island effects are found. The *wh*-QP's in the following can take the matrix scope (from J.-W. Choe 1985).

- (4) [*mwues-ul* *hwumchi-n*] *salam-ul* *chac-ko* *iss-ni*?
 what-Acc stole-Rel person-Acc search-Aux be-Q
 a. 'What (are you) searching for a person who has stolen *t* ?'
 b. '(Are you) searching for the person who has stolen something?'
- (5)a. [*NWU-ka* *ka-nun-ci*] *alkosip-ni*?
 who-Nom go-Pres-Q wonder-Q?
 'Who do you want to know is going?'
- b. [*mwu-ka* *ka-nun-ci*] *ALKOSIP-ni*?
 who-Nom go-Pres-Q wonder-Q?
 'Do you want to know who is going?'
 'Do you want to know if someone is going?'

Similar patterns are found in other languages as well: German and Chinese. Interestingly, again two different readings are marked by different pitch accent patterns. Some German examples:

- (6)a. *WER* *kam*?
 who(Nom) come(Past)
 'Who came?'
- b. *Wer* *KAM*?
 'Did anybody come?'
- c. *Es* *KAM* *wer*?
 pleonastic come(Past) who(Nom)
 'Did anybody come?'
- (7)a. *Hans SAH* *wen/was*
 Hans see(Past) who(Acc)/what(Acc)
 'Hans saw someone/something'
- b. *WEN/WAS* *sah* *Hans*?
 who(Acc)/what(Acc) see(Past) Hans
 'Who/What did Hans saw?'

2. Previous Accounts: Syntax-Semantics of Korean and Japanese *Wh*-Qs

Although the ambiguity of Korean *wh*-words has been known for a while, there have been very few attempts to provide semantic formalization. Most previous studies were focused on certain syntactic aspects of the Korean question, such as its lack of island effects. I will briefly review two previous studies here: Jae-W. Choe (1985) acknowledges the role that the pitch-accent plays in Korean questions but does not attempt to formalize the ambiguity of Korean *wh*-words, while Soo Won Kim (1989) does aim to capture the ambiguity but from a purely syntactic point of view, not taking the pitch-accent factor into account.

2.1. Jae-W. Choe (1985)

He argues that Korean interrogative complementizers such as *-ci*, *-kka*, *-nya* function as scope barriers for the *wh*-words; *wh*-words are bound by such closest c-commanding scope marker. It explains why the *wh*-word takes the matrix scope in (a) but the subordinate clause scope in (b):

- (8)a. [*nwu-ka* *kass-ta-ko*] *Hia-ka* *malhayss-ni*?
 [who-Nom went-Dec-Quot] *Hia-Nom* said-Q?
 'Who did Hia say that t went?'
 b. [*nwu-ka* *kass-nya-ko*] *Hia-ka* *malhayss-ni*?
 [who-Nom went-Q-Quot] *Hia-Nom* said-Q?
 'Did Hia ask who went?'

But he notes that there is in fact another interpretation of (b), the one where the *wh*-word is bound by the matrix Q-comp: 'Who did Hia ask t went (i.e. did she ask if John went or if Tom went?)', which violates his own binding principle. He attempts to preserve his theory by resorting to a pitch-accent assignment to a larger syntactic unit, as shown below:

- (9)a. *NWU-ka* *kass-nya-ko* (#) *Hia-ka* *MALhayss-ni*?
 who-Nom went-Q-Quot *Hia-Nom* said-Q?
 'Did Hia ask who went?'
 b. *NWU-ka* *KASS-nya-ko* (#) *Hia-ka* *malhayss-ni*?
 'Who did Hia ask t went?'
- (10)a. *NWU-ka* *KA-nun-ci* (#) *alkosip-ni*?
 who-Nom go-Pres-Q (#) wonder-Q?
 'Who do you want to know is going?'
 b. *NWU-ka* *ka-nun-ci* (#) *ALkosip-ni*?
 'Do you want to know who is going?'

He claims that different prosodic patterns are associated with the two different interpretations for each example: where the *wh*-word gets the matrix scope, the whole embedded clause bears the pitch accent. Due to this prosodic fact, he claims, it is not the

wh-word alone but the whole embedded clause itself that gets the matrix scope, via pied-piping: therefore his binding principle can be preserved.

2.2. Soo Won Kim (1989)

The main claim Soo Won Kim (1989) makes in his paper is that Japanese and Korean *wh*-phrases are not *wh*-question phrases as in English but mere quantifier phrases (QPs) as in English 'someone' and 'everybody'. Focus and pitch-accent are not given a significant status in his account, but rather the two different interpretations are derived through the scope interaction factor, summarized as:

(11) Scope Interpretation

A *wh*-phrase is interpreted as a *wh*-question word iff it is contained in the same maximal projection as a Q-morpheme; it is interpreted as a QP otherwise.

The two interpretations of (2a) and (2b) follow from the two distinct syntactic representations below, assuming that a Q-morpheme is not in COMP but in INFL:

- | | | |
|--------|--|----------------|
| (12)a. | [_{IP} WhP ₁ [_{IP} ... t ₁ ... [_I Q]]] | (Wh question) |
| b. | [_{CP} [_{IP} WhP ₁ [_{IP} ... t ₁ ... [_I t ₂]]] [_C Q ₂]] | (Y/N question) |

The difference between (a) and (b) is that in (b) the Q-morpheme has moved out of the IP while in (a) it is still in its original position, namely I₀. The *wh*-phrase contained in the IP subsequently gets the indefinite (QP) interpretation in the case of (b) and the *wh*-question word interpretation in (a).

3. A Proposal: Korean Question as Association with Focus

In this section, I will present what I think is the most straightforward approach to Korean questions: Korean questions as association with focus. Given the undeniable role the pitch accent plays in disambiguation, and under the assumption that the pitch accent signals focus placement, I believe focus must be given a more essential role in Korean question semantics than has been assumed in the previous literature.

Some of the results from my pilot study which was conducted using naturally occurring Korean speech data (Callhome Korean Database, collected by the Linguistic Data Consortium at University of Pennsylvania) support this idea. First, it is shown that naturally occurring utterances always do carry one of the two distinct prosodic patterns. Second, the case-marking pattern found in the data indicates that there is a connection between focus marking and question semantics: all indefinite *wh*-words found are bare NPs, i.e. case markers are omitted, while *wh*-question words (excluding non-argument types) display a 50% chance of accompanying an overt case marker. The connection between the absence or presence of case markers and topic/focus marking has long been recognized: it was sometimes argued that case markers also mark focus³ (Nam-Swun Lee 1988, Chungmin Lee 1992, Na-Rae Han 1997).

³ This is rather too strong an assumption, and also fails to explain why only 50% of *wh*-words show up overtly case-marked. I believe that the correlation should be restated regarding the "topichood" such as: NPs serving as a topic tend not to have overt case-marking.

Now let us turn to the semantic analysis part. As the theoretical framework, I employ the theory of focus semantics, more specifically the Structured Meaning Semantics approach given in Horn (1969), Jacobs (1988), von Stechow (1991), Krifka (1991) among others. The gist of their claim:

- (13) Focus has the effect of structuring the propositions denoted by sentences into: a pair consisting of (i) a property obtained by abstracting the focused position, (ii) the semantics of the focused phrase.

I argue that Korean interrogative complementizers are focus-sensitive and therefore take this kind of focus marked structure as their argument. It takes the above structure as its argument to generate the set consisting of the propositions of the form (i) with the alternative semantic values of the focused part.

$$(14) \quad |C_Q(\langle \alpha, \beta_k \rangle)| = \lambda p. \exists \gamma \in D_k [p = \alpha(\gamma)]$$

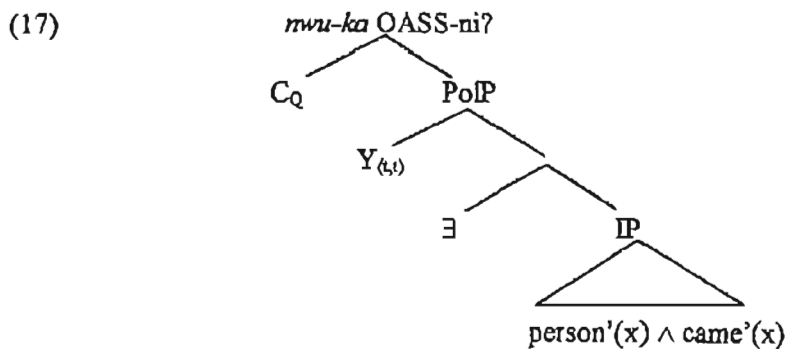
I take *mwuka* to be of type $\langle et, t \rangle$ with the below denotation, containing a variable which may be bound at some point of derivation by existential closure.

$$(15) \quad |mwu-ka| = \lambda P. [person(x) \wedge P(x)]$$

In the case of *wh*-question, it is the free variable contained in the denotation that gets the focus. Later alternatives for the variable, i.e. entities in the model, are plugged in. The derivation:

$$(16) \quad |NWU-ka oass-ni?| \\ = C_Q(\langle \lambda x_e. [person'(x) \wedge came'(x)], x \rangle) \\ = \{ came'(j), came'(t), came'(m) \} \\ = \{ \text{that John came, that Tom came, that Mary came} \}$$

In the case of Yes-No question, it is the implicit polarity marker (represented as + and ~) that is focused: since there is only one two markers of the same type, namely positive and negative, the final output will contain two propositions with the two markers instantiated. Here existential closure is in effect and binds the free variable contained in the denotation of *mwuka*, as illustrated in (17) and (18).



- (18) | *nwu-ka* OASS-ni? |
 = $C_Q (\langle \lambda Y_{(t,t)}. Y [\exists x [\text{person}'(x) \wedge \text{came}'(x)]], Y \rangle)$
 = { $\sim \exists x [\text{person}'(x) \wedge \text{came}'(x)], + \exists x [\text{person}'(x) \wedge \text{came}'(x)]$ }
 = { that nobody came, that somebody came }

Now I extend my analysis to multiple *wh*-questions. Let us examine the following example with two *wh*-words, with three distinct readings⁴:

- (19)a. *NWU-ka MWUE-l sass-ni?*
 wh(person)Nom wh(thing)-Acc bought-Q
 'Who bought what?'
 b. *NWU-ka mwue-l sass-ni?*
 'Who bought something?'
 c. *nwu-ka mwue-l SASS-ni?*
 'Did somebody buy something?'

We have two NPs bearing pitch-accent now in (a), which forces us to allow C_Q to take a structured argument with yet another embedded structure. That is, the focused argument (the second element of the ordered set) must itself have an internal structure, so that it can identify each of the multiple focused elements. I generalize the semantics of C_Q as follows:

- (20) | $C_Q (\langle \alpha, \langle \beta_1, \beta_2, \dots, \beta_n \rangle \rangle) |$
 = $\lambda p [\beta_{1-n}, \gamma_{1-n} \in D_k, \alpha = \lambda_1 x \lambda_2 y \dots \lambda_n z. q]. [p = \alpha(\gamma_1)(\gamma_2) \dots (\gamma_n)]$

How this new generalized version of the denotation for C_Q works for the multiple *wh*-question reading in (a) should be rather straightforward. For example (b) where one *wh*-word is interpreted as a *wh*-question word while the other gets the indefinite reading, the former introduces the focus alternative values while the latter gets bound by the existential operator at some point, thereby deriving the desired denotation. For (c), both of the two *wh*-words will have the variables contained in them bound by the existential operator before the polarity values are instantiated.

4. Extending the Analysis: Implicit/Layered Foci

The relationship between the surface pitch accent and the focus structure associating with the question complementizer is not always direct as seen above. The main pitch accent can fall on some other constituent than the *wh*-word or the verb:

- (21) *MARY-ka mwukwu-l cohaha-ni?*
 mary-Nom who-Acc like-Q?
 (a) 'For nobody other than Mary, who does she like?'
 (b) 'Is it Mary that likes someone?'

⁴ The one last logical possibility, i.e. the reading where *mue-l* is a *wh*-Q word but *nwu-ka* just indefinite, is unavailable. See the next section.

For reading (a), for the *wh*-word to get the *wh*-question word interpretation, we need to postulate that the C_Q complementizer somehow associates with the *wh*-word, although it is not explicitly marked with the surface prosody. Also, for (b) to have a Yes-No question denotation at all, the C_Q complementizer should associate with the polarity marker in the verb. We are again forced to postulate that the C_Q complementizer does not directly associate with the surface focus on 'John' but with the polarity marker on the verb.

A possible solution (which is yet to be explored): it may be the case that the polarity marker only gets the lower level focus in the **layered focus structure**. The focus that 'Mary' gets does not contribute to the question semantics, but some other kind of focus present in the sentence, namely **contrastive focus** (Halliday 1967, Chafe 1976 among others).

The notion of layered/multiple foci is needed to account for examples such as following (Rooth 1996, prosodic marking is my own), where two distinct foci can associate with distinct operators while only one of them is prosodically marked. Here in the second sentence *only* is understood as associating with 'Bill' and *also* with 'Sue'.

- (22) John **only** introduced BILL to Mary.
He **also only** introduced Bill to SUE.

Similar situations arise in embedded questions, as shown below (=example 5):

- (23)a. *NWU-ka ka-nun-ci alkosip-ni?*
who-Nom go-Pres-Q wonder-Q?
'Who do you want to know is going?'
b. *nwu-ka ka-nun-ci ALKOSIP-ni?*
'Do you want to know who is going?'
'Do you want to know if someone is going?'

(b) is ambiguous, even after considering the prosodic fact. In order to be able to derive the two different meanings, the *wh*-question and the Yes-No question for the embedded clause, we need to assume that the embedded clause is also focus marked although not surfacing. One should assume the 'layered foci': multiple layers of foci are involved, but only one of them gets to be prosodically marked.

The approach poses yet another problem for cases like following, a Yes-No question with a focused referential NP, in place of the focused *wh*-word:

- (24)a. JOHN-i oass-ni?
John-Nom came-Q?
'Is it John that came?'
b. john-i OASS-ni?
'Did John come?'

(a) needs to have a different denotation from that of (b); however, if we assume as before that it is the *e*-type variable contained in the denotation of *John* that gets the focus, then the denotation of the whole sentence will be the same as that of the *wh*-question. For it to have a Yes-No question denotation at all, the C_Q complementizer should associate with

the polarity marker in the verb. In this case we are forced to postulate that the C_Q complementizer does not directly associate with the surface focus on *John* but with the polarity marker on the verb. Again, a possible solution is that it may be the case that the polarity marker only gets the lower level focus in the layered focus structure.

5. But What about All the Syntactic Evidence? : Unburdening Syntax

So far I have presented a new approach to Korean questions, which crucially views the role of focus semantics as the very essence of Korean question interpretation. This approach casts an important theoretical implication: since focus marking is more or less independent of the syntax of the sentence itself, one can expect that Korean questions in general are relatively syntactically unconstrained. This is indeed the case, and it has been pointed out throughout numerous works that Korean *wh*-phrases are free from island effects.

For example, take the following example containing an NP island from Jae-W. Choe (1985). In his analysis, he had to postulate that the whole relative clause bears the pitch accent in order for the *wh*-word in (a) to get the matrix scope via pied piping, a claim which is hardly supported by the real speech pattern. Under my approach, however, it is only the two different lexical items that bear pitch-accent (which reflects the reality more closely) as the example is shown accordingly marked.

- (25)a. [*MWUES-ul* hwumchi-n] salam-ul chac-ko iss-ni?
 what-Acc stole-Rel person-Acc search-Aux be-Q
 'What (are you) searching for a person who has stolen *t*?'
 b. [*mwues-ul* hwumchi-n] salam-ul chac-ko ISS-ni?
 '(Are you) searching for the person who has stolen something?'

In the rest of the section, I will show how some phenomena viewed as syntactic in nature in previous works, all of which involve an ordering restriction of some sort, can in fact be attributed to some other linguistic modules, such as pragmatics and language processing.

When Korean (and Japanese) questions are discussed concerning their syntactic status, often relativized minimality type of effects are put forward as a piece of evidence in support of their syntactic significance. A set of examples from S. W. Kim (1989) (the pitch-accent marking is my own):

- (26)a. ?* *mwu-ka* [Mary-ka *MWUES-ul* sassta-ko] malhayss-ni? (Korean)
 ?*Dareka-ga [Mary-ga nani-o katta-to] itta-ka? (Japanese)
 Someone-Nom [Mary-Nom what-Acc bought-Quote] said-Q?
 'What did someone say that Mary bought?'
 b. [Mary-ka *MWUES-ul* sassta-ko] *mwu-ka* malhayss-ni?
 'What did someone say that Mary bought?'
 c. *mwu-ka* [Mary-ka *mwues-ul* sassta-ko] MALHAYSS-ni?
 'Did someone say that Mary bought something?'

In (a) and (b), *mwues-ul* in the embedded clause is meant to be interpreted as 'what' taking the matrix scope, while *mwu-ka* in the matrix clause is getting the indefinite reading. The indefinite NP *mwu-ka* taking syntactic scope over the *wh*-question word

causes a problem (in a), which is resolved via scrambling (in b). Also the Yes-No question reading in (c) with focus on the verb is fine. S. W. Kim (1989) took this as supporting evidence for his claim that Korean and Japanese *wh*-phrases are Quantifier Phrases; the gist of his argument is that scopal interaction with other quantifiers (an indefinite in this example) is an expected property of QPs but not of canonical *wh*-question phrases as 'what', 'which N' in English.

This seems to point to more syntactic nature of Korean *wh*-Ps than has been put forward in my account. If this indeed is a syntactic phenomenon, then this is outside of the range of the theoretical coverage of my account of Korean *wh*-words and questions. Is there any other explanation? I claim that there in fact is, which is in essence a pragmatic account.

I believe the contrast in the above examples is due to the fact about Korean (and also Japanese) that the position that *nwu-ka* ('someone') is occupying, the clause-initial position, is a preferred position for Topic. When non-referring *nwu-ka* 'someone' is occupying the topic position, the sentence becomes much harder to process, since it is not conceivable that a question is being asked 'of' a non-specific someone. In terms of the theory of Information Structure, the word-order and the pitch-accent placement in example (26a) evokes Vallduví's (1990) tri-partite structure, 'link-focus-tail'⁵, with *nwuka* occupying the Link position. This is not felicitous since this position, functioning as the 'discourse anchor', is normally expected to be occupied by a referential NP⁶. About the other two acceptable examples, they get different information structures where *nwu-ka* does not function as Link any more, due to scrambling and different focus placement:

- (27)a. ?*[*nwu-ka*]_{link} [*Mary-ka MWUES-ul sassta-ko*]_{focus} [*malhayss-ni*]_{tail}?
 Someone-Nom Mary-Nom what-Acc bought-Quot said-Q
 'What did someone say that Mary bought?'
 b. [*Mary-ka MWUES-ul sassta-ko*]_{focus} [*nwu-ka malhayss-ni*]_{tail}?
 'What did someone say that Mary bought?'
 c. [*nwu-ka Mary-ka mwues-ul sassta-ko*]_{tail} [*MALHAYSS-ni*]_{focus}?
 'Did someone say that Mary bought something?'

Another related phenomenon can be found in the following example illustrating the word-order puzzle regarding Japanese *wh*-word *naze* 'why' (same phenomenon is found in Korean as well):

⁵ Vallduví's (1990) Trinomial Hierarchical Articulation

S={ Focus, Ground }

Ground={ Link, Tail }

- Focus: informative focus, only the informative part of the sentence

- Link: an 'address pointer' that directs the hearer to a given address (or file card) in the hearer's knowledge-store

- Tail: the complement of link, performs a more specific task regarding the exact way in which information is retrieved and entered under a given address.

⁶Existential presupposition of topic: 'The requirement that topic expressions designate discourse referents entails that only referring expressions can be topics. ... The restriction against non-referring expressions applies also to so-called "indefinite pronouns" and other quantified expressions, like *nobody*, *everybody*, *many people*, etc.' (Lambrecht 1994, p156)

- (28)a. Dare-ga naze soko-ni itta-no? (Japanese)
mwu-ka way keki-ey kass-ni? (Korean)
 who-Nom why there-Loc went-Q
 'Why did who go there?'
- b. *Naze dare-ga soko-ni itta-no? (Japanese)
 **way mwu-ka keki-ey kass-ni?* (Korean)
 why who-Nom there-Loc went-Q
 'Why did who go there?'

Most researchers including Saito (1987, 1994), Yanagida (1996), Watanabe (1992) have made an attempt to solve this mystery on syntactic grounds, resorting to various syntactic mechanisms such as movement at LF and Superiority effect. Kuno (1972), however, approaches it from a different perspective, which highlights its pragmatic aspect. In his 1972 paper, he argues that a multiple *wh*-question is in fact a family of questions and the first *wh*-word in linear order provides some kind of 'sorting key' to the way the family of question is organized. According to his view, the above two questions in fact differ in their meaning:

- (29)a. Dare-ga naze soko-ni itta-no?
 who-Nom why there-Loc went-Q
 'About John, why did he go there? About Tom, why did he go there? About Mary, why did she go there?...'
- b. *Naze dare-ga soko-ni itta-no?
 why who-Nom there-Loc went-Q
 'For reason1, who went there because of it? For reason2, who went there because of it? For reason3, who went there because of it?...'

In terms of information structure, the first of the two *wh*-words functions as the Link (i.e. Topic) for the individual questions contained in the question family. It is highly unlikely that there exists a predetermined and salient set of 'reasons' in a context where a speaker requests information about them, hence the high unacceptability of example (b). Conversely, this means that we can expect the acceptability of (b) to improve if we can conjure up a plausible context. Indeed, imagining a situation where a group of detectives are trying to match up some set of motives with some number of suspects, one can verify that the acceptability of (29b) greatly improves.

This strongly suggests that the contrast between (a) and (b) lies in the domain of pragmatics, not syntax; any syntactically oriented accounts will fail to capture this effect. Furthermore, an often disregarded fact: the phenomenon is restricted to one specific lexical item *naze* 'why' and is not general to the whole adverbial *wh*-word category. *itsu* 'when' and *doko-ni* 'where' do not exhibit such ordering restriction. Any syntactic account that attempts to generalize upon the A-bar status of *naze* will be unable to provide any explanation as to why the same thing does not apply to the items of the same category, which must have the same syntactic status as that of *naze*. From the pragmatic point of view, on the other hand, it can be easily attributed to the fact that 'time' and 'location' are understood to be part of the discourse model, unlike 'reason', and are therefore more readily available as Topic.

Finally, consider the following examples taken from Watanabe (1992) and Yanagida (1996), each of which contain one *wh*-word in the matrix clause and another in the subordinate clause. I have also shown corresponding Korean sentences.

- (30)a. ?*John-wa dare-ni [Mary-ga nani-o katta-ka-doo-ka] tazuneta-no?
 ?*John-un nwukwu-eykey [Mary-ka mwues-l sass-nunci] mwules-ni?
 John-Top who-Dat Mary-Nom what-Acc bought-whether] asked-Q
 'Who did John ask whether Mary bought what?'
 b. John-wa [Mary-ga nani-o katta-ka-doo-ka] dareni tazuneta-no?
 John-un [Mary-ka mwues-l sass-nunci] nwukwu-eykey mwules-ni?
 John-Top Mary-Nom what-Acc bought-whether who-Dat asked-Q

Again the unacceptability of (30a) is resolved via scrambling as illustrated in (b), which Watanabe (1992) took as supporting the presence of the anti-Superiority effect. Contra Watanabe (1992) and Yanagida (1996), however, I believe that the unacceptability of (30a) should rather be attributed to processing difficulties.⁷ Under the assumption that a *wh*-word and a question complementizer have a dependency relation, (30a) has a nested (or 'center-embedded') dependency structure, while in (b) as the result of scrambling the two dependency relations, one in matrix clause and one in subordinate, do not cross each other any more. The latter structure requires less memory and therefore easier to process in reader's mind, thereby resulting in the higher acceptability of (b).⁸

6. Conclusion

To sum up, I have presented a new approach to Korean question semantics from the perspective of focus semantics. I defined the Korean question phenomenon in general as association with focus, and proposed to view Korean question complementizers as taking a structured proposition as their argument. Also I have assigned a single semantic denotation to Korean *wh*-words which makes their two ambiguous readings possible given appropriate focus structures. Also in the later part of the paper I showed some of the issues that have been pursued in the literature from syntactic perspectives can in fact be attributed to pragmatic and processing-related aspects of the examples discussed.

Still there are many remaining issues, one of which is to see how this new approach can extend to the more complex question constructions discussed in section 4, especially those ones involving embedded questions and layered foci. It would be a challenge for the focus-semantics based framework to aim to derive them compositionally. I leave them to future work.

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⁷ Thanks to Kimiko Nakanishi for bringing this point to my attention.

⁸ For further discussions on the processing of nested structures, refer to Babyonyshev and Gibson (1995).

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