

A Pragmatic Approach to Intervention Effect Sentences in Korean: Focus, Presupposition, and Metarepresentation*

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Noh, Eun-Ju. 2011. A Pragmatic Approach to Intervention Effect Sentences in Korean: Focus, Presupposition, and Metarepresentation. *Linguistic Research* 28(1), 179-197. In syntax, a Korean WH-question with an NP-*man* 'NP-only' is claimed to be ungrammatical if the NP-*man* precedes the WH-word (e.g., Beck and Kim 1997; Beck 2006). It is called the intervention effect, since, they claim, the NP-*man* intervenes the connection between the WH-word and its licensing Q-operator at LF. Tomioka (2007) claims that they are not ungrammatical but only pragmatically unnatural. Others (Wee 2007; Moon 2008; Moon et al. 2009) also suggest pragmatic approaches to the intervention effect. This paper reviews these pragmatic accounts, pointing out a few things to be clarified. It also presents another pragmatic account of the intervention effect in Korean, focusing on the NP-*man*, within the relevance-theoretic framework. This cognitive account explains why the intervention effect arises, why the judgements of an intervention-effect sentence vary among linguists, why the scrambled sentence is preferred, and why echo or echoic questions do not show the intervention effect. (Inha University)

Key Words focus, grammaticality, information structure, anti-topic items, presupposition, background information, metarepresentation, echo questions

1. Introduction

It is generally agreed that an intervention effect arises when a focusing element precedes a WH-word in a WH-question.¹ For example, in (1), when *mues* is

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¹ It seems that intervention effects do not arise with the WH-word *why*. (see Ko 2005; Tomioka 2009). This issue will not be dealt with in this paper.

interpreted as 'what', *Minswu-man* 'Minswu-only' cannot precede it, as in (a).² In contrast, if the WH-word scrambles over *Minswu-man* 'Minswu-only,' the intervention effect disappears, and the question becomes grammatical as in (b):³

- (1) a. *Minswu-man mues-ul po-ass-ni?
 Minswu-only what-Acc see-Pst-Q
 b. Mues-ul Minswu-man po-ass-ni?
 What-Acc Minswu-only see-Pst-Q
 'What did only Minswu see?'

In contrast, an NP used with nominative case marker *-i/ka*, such an intervention effect does not arise, as in (2):⁴

- (2) a. Minswu-ka mues-ul po-ass-ni?
 Minswu-Nom what-Acc see-Pst-Q
 b. Mues-ul Minswu-ka po-ass-ni?
 What-Acc Minswu-Nom see-Pst-Q
 'What did Minswu see?'

Intervention effects are found not only in focusing elements such as 'only' or 'also' but also in some quantifiers and negative polarity items, as in (3)-(4) (Beck 2006: 4)

- (3) a. *amuto mues-ul ilkei-anh-ass-ni?
 anyone what-Acc read-not do-Pst-Q

² If *mues* is interpreted as an indefinite NP 'something', there is no intervention effect in (1a).

³ In transcribing Korean examples, the Yale Romanization system is used. The abbreviations mean as follows:

Acc: Accusative case marker	Con: Conjunction
DC: Declarative sentence-type suffix	Nom: Nominative case marker
Pst: Past tense/Perfect aspect	Q: Interrogative sentence-type suffix
QT: Quotative particle	SE: Sentence-ending suffix
Top: Topic marker	

⁴ While Tomioka (2007) classifies an NP with a nominative case marker as an intervener in Japanese and Korean, Korean linguists (e.g., Wee 2007; Moon 2008; Moon et al. 2009) use the NP as a case where no intervention effect arises, as in (2). I agree with Korean linguists and assume that it is not an intervener, in this paper.

- b. *mues-ul_i amuto t_i ilkei-anh-ass-ni?*
 what-Acc anyone read-not do-Pst-Q
 'What did no one read?'
- (4) a. ?? *nwukwuna-ka enu kyoswu-lul conkengha-ni ?*
 everyone-Nom which professor-Acc respect-Q
 b. *enu kyoswu-lul_i nwukwunaka t_i conkengha-ni ?*
 which professor-Acc everyone-Nom respect-Q
 b'. 'For which x, x a professor: everyone respects x.'

The set of the interveners contain the following items in English (from Beck 2006:4):

- (5) *only, even, also, not, (almost)every, no, most, few* (and other nominal quantifiers), *always, often, never* (and other adverbial quantifiers)

The languages that have the intervention effect do not have all of the items in (5) as the interveners. According to Kim (2002), the focusing elements *only, even, and also* are crosslinguistically stable.

According to Beck (2006), intervention effects also exist in Japanese, Dutch, English, German, French, Hindi/Urdu, Malayalam, Mandarin, Passamaquaddy, Persian, Thai, and Turkish. The examples in (6)-(8), taken from Beck (2006:6), are a sample of relevant sentences in these languages:

- (6) Hindi (Beck 1996)

- a. ??*koi nahiiN kyaa paRhaa*
 anyone not what read-Perf.M
 b. *kyaa koi nahiiN paRhaa*
 what anyone not read-Perf.M
 'What did no one read?'

- (7) Japanese (Miyagawa 1998 as cited in Pesetsky 2000):

- a. **Hotondo dono hito-mp nani-o yonda no?*
 almost every person what-Acc read Q
 b. *Nanu-o hotondo dono hito-mp yonda no?*
 what-Acc almost every person read Q
 'What did almost every person read?'

(8) Malayalam (Kim 2002)

- | | | | |
|------------------|---------------|---------------|-------------|
| a. *Lili-maatram | eete | pustakam-aane | waayikk-ate |
| Lili-only | which | book-be | read-Nom |
| b. eete | pustakam-aane | Lili-maatram | waayikk-ate |
| which | book-be | Lili-only | read-Nom |
- ‘Which book did only Lili read?’

In syntax, it is claimed that the intervention effect takes place since the focusing element intervenes between a WH-word and its licensing Q-operator (Beck and Kim 1997; Kim 2002; Beck 2006). Because of the intervention, the WH-word cannot be licensed by or cannot be connected to the Q-operator and thus cannot be interpreted (Beck 2006). If the word scrambles over the focusing element, the WH-word can be connected to (c-commanded by) the Q-operator, so that there is no intervention effect, and the sentence becomes grammatical.

There are pragmatic accounts based on the judgement of the intervention-effect sentence that it is not ungrammatical, but only 'marginal,' 'not often used,' 'unnatural,' or 'infelicitous' (see Tomioka 2007:1572) or that intervention-effect sentences are not always ungrammatical (see Wee 2007; Moon 2008). They attempt to explain the intervention effect using pragmatic notions such as information structure and presupposition. Moon et al. (2009) explore the intervention effect by conducting an EEG (electroencephalograph) experiment. They conclude that the intervention effect is due to a pragmatic factor such as presupposition failure.

On the other hand, echo questions do not seem to have the intervention effect even if an (potential) intervener precedes the WH-word. There are also other questions that do not have the intervention effect, though they are not traditional echo questions. The previous accounts do not deal with these cases.

This paper presents a pragmatic account of the intervention effect in Korean within the relevance-theoretic framework. This cognitive account explains why the intervention effect arises. It examines previous accounts of the intervention effect and points out that they ignore that an expression can be used as a focus but not always. When it is not a focus, the intervention effect does not arise. Only when it is used as a focus, it is semantically or pragmatically problematic. This account explains why the judgements of an intervention-effect sentence vary among linguists and why echo or echoic questions do not allow the intervention effect. Finally, it will also

explain why the scrambled sentence is preferred to an intervention-effect sentence.

Previous pragmatic accounts of intervention effects in Korean (Wee 2007; Moon 2008; Moon et al. 2009) focused on the intervention effect between an NP-*man* and a WH-word. I am also going to focus on the intervention effect between the two, which will make it easier to discuss the examples used in the previous accounts.

2. Previous Accounts of Intervention Effects

2.1 The Intervention Effect as Defined in Syntax

In syntax, it has been claimed that in a WH-question, if a focusing element such as an NP-*man* 'NP-only' precedes the WH-word, the sentence becomes ungrammatical and if the WH-word precedes the focusing element by scrambling, the sentence becomes grammatical. It is called an intervention effect, and is characterized as in (9) ((a) from Kim (2002), and, (b) from Beck (2006)):

(9) Intervention Effect

- a. $*[Q_i \text{ } [\dots [\text{FocP} \text{ } [\dots \text{wh-phrased}_i \dots]]]]$

A focused phrase (e.g. 'only'+ NP) may not intervene between a wh-phrase and its licensing complementizer.

- b. $*[Q_i \text{ } \dots [\sim C \text{ } [\dots \text{wh}_i \dots]] \dots]$

A wh-phrase may not have a \sim operator as its closest c-commanding potential binder.

(\sim operator: focus-sensitive operator)

According to (9a), in (1a), the focusing element *Minswu-man* 'Minswu-only' c-commands the WH-word *mues* 'what' and c-commanded by the Q-operator. It then intervenes the connection between the WH-word and its Q-operator at LF and thus the WH-word cannot be licensed by the Q-operator (Kim 2002). According to (9b), in (1a), the focus operator (\sim operator), which is to be associated to the focusing phrase *Minswu-man*, intervenes the connection between the WH-word and its Q-operator at LF, and thus the WH-word cannot be interpreted as a WH-word (Beck 2006). In contrast, in (1b), *Minswu-man* or its operator does not c-command the

WH-word, so that it does not intervene between the WH-word and the Q-operator. Hence, the sentence is grammatical.

The syntactic theories of intervention effects (e.g., Beck and Kim (1997); Ko (2005); Beck (2006)) admit that some intervention-effect sentences are acceptable if they are interpreted as echo questions, but they do not pay more attention than that. In sections 3 and 4, I will suggest a pragmatic account that deals with echo questions as well as ordinary intervention-effect questions.

2.2 Previous Pragmatic Accounts of Intervention Effects

There has been disagreement on the grammaticality judgement on intervention-effect sentences. While some agree that they are ungrammatical, others argue that they are not ungrammatical but pragmatically problematic.⁵ Tomioka (2007) proposes a pragmatic account of intervention effects in Japanese and Korean, using the notion of information structure. Referring to Erteschik-Shir (1997) and Beck (2006), he considers that in a WH-question the WH-word acts as the focus of the sentence and the other part is 'discourse-old' in the sense of Prince (1981) or GIVEN in the sense of Schwarzschild (1999). He, then, based on Vallduví (1995), divides a sentence into a focus and a ground, and the ground is further divided into a link and a tail. A focus corresponds to new information in the sentence, and a ground to old information. A link is a topic (a topic-marked phrase) whose role is connecting the utterance with the previous context, and a tail is the remaining part of the ground.

According to Tomioka, the interveners are various but all of them cannot be marked by the topic marker *-(n)un* in Korean, as in (10) (He deals with both Japanese and Korean cases, but in this paper, I concentrate on Korean examples only):⁶

- (10) a. *amuto-nun
 anyone-Top

⁵ Beck (2006) agrees that some speakers of Korean do not perceive a strong intervention effect with the examples he uses. He considers them as speakers of a more liberal dialect and does not modify his theory to accommodate the variations.

⁶ Tomioka clarifies that in (10c, d), it is possible if the NP is used as a contrastive topic.

- b. *nwukwuna-nun
everyone-Top
- c. *nwukwunka-nun
someone-Top
- d. *[John-ina Bill]-un
John-or Bill-Top
- e. *John-to-nun
John-also-Top

Tomioka argues against the syntactic accounts that the potential interveners are focused or focus-sensitive expressions (see Beck 2006). According to him, a disjunctive NP or an existential quantifier, as in (10c) and (10d), respectively, cannot be a focused element. He suggests that the common property of the interveners is that they cannot be used as a topic (thus, he calls them anti-topic items or ATIs). One possible reason for it is that 'topicality presupposes familiarity (2007:1577).' Since most of them are not familiar in the context, they are not suitable for topic-marking.

Tomioka claims that the intervention-effect sentence as in (1a) is not natural because ATI NP-*man* is placed in a topic position. In contrast, if the WH-word *muesul* moves over the NP-*man*, as in (1b), the NP-*man* comes to belong to the tail of the question. (He considers that everything behind the WH-word belongs to the tail of the sentence.) Thus, the intervention effect is cancelled in (1b). The intervention-effect sentence is not ungrammatical but infelicitous pragmatically due to 'a less than perfect correspondence between syntactic structure and information structure (Tomioka 2007: 1586).'

However, it is not clear that (1a) is problematic because the NP-*man* is placed in the topic position. If it cannot be used in a topic position because of its unfamiliarity, as he claims, how can it be placed in the tail, which is another kind of discourse-old information? And if everything behind the WH-word is the tail, where is the link (topic) of the scrambled sentence? Contra Tomioka, it is generally considered that there is no fixed place for a topic (see Jaszczolt 2002: 166). It is not convincing to assume that the place before the WH-word is exclusively for a topic, and the place after the WH-word is not.

Wee (2007) also suggests a pragmatic account of the intervention effect in terms

of information structure. She claims that even in the (potential) intervention-effect sentence as in (1a), if the WH-word *muesul* is stressed, it becomes the focus of the sentence, and the other part becomes background information. Then the NP-*man* is not a focus any more and cannot intervene between the WH-word and the Q-operator. If the WH-word is not stressed in (1a), the intervention effect arises in sentence (1a), and it is cancelled in the scrambled sentence (1b). She states that these cases can be explained by Beck's (2006) intervention account.

One thing to be clarified is that a WH-word in a WH-question is a focus (See Tomioka's account above), and thus get stressed. It is dubious that there is a case where the WH-word in a WH-question is not stressed. Considering that a WH-word is supposed to be stressed in a WH-question, Wee's account amounts to the claim that there is no intervention effect. In my view, it is more crucial whether the (potential) intervener *Minsuman* gets stressed or not. This will be discussed in section 3 in more detail.

Moon (2008) discusses intervention-effect sentences in terms of presupposition satisfaction/failure. Just like Tomioka (2007), she assumes that the WH-word is the focus of a WH-question and the NP-*man* is not a focus. A difference is that Moon views the NP-*man* as the topic of the question, while Tomioka claims that it is an anti-topic item. According to Moon, the questions in (11) can be grammatically used in a situation such as (12), which she assumes is presupposed old information:

- (11) a. thokki-man muel mul-ess-ni?
 rabbit-only what hold in a mouth-Pst-Q
 b. muel thokki-man mul-ess-ni?
 what rabbit-only hold in a mouth-Pst-Q
 'What is only the rabbit holding in its mouth?'
 (12) Only the rabbit is holding something in its mouth.

According to Moon, in a situation where only the rabbit is holding something in its mouth, the questions in (11) are 'grammatical.' If not only the rabbit but also other animals such as a lion are holding something in its mouth, they are not 'grammatical.' The addressee cannot find a proper answer because the presupposition is not true. Here, she notes, it is not certain whether 'grammaticality' is syntactic or semantic/pragmatic, yet.

It is true that an utterance whose presupposition is not true may not be felicitous. However, any utterance can be infelicitous if the presupposition is not satisfied. Moon's account cannot be an account of the intervention effect itself. Moreover, in Moon's account, there is no distinction between (11a) and (11b), that is, no difference in (syntactic/semantic or pragmatic) grammaticality between an intervention-effect sentence and a scrambled sentence. This does not reflect our intuition that (11b) is preferred to (11a).

On the other hand, Moon et al. (2009) conducted an EEG experiment to see whether intervention-effect sentences are syntactically problematic or semantically/pragmatically problematic. According to previous neurophysiological researches, when subjects process a sentence, their brain waves go negative around 400 ms after the onset of a word if the word is semantically or pragmatically incoherent. It is referred to as the N400 (see Kutas and Hillyard 1980, 1984; Hagoort et al. 2004). In contrast, if the word has a syntactic or grammatical error, their brain waves go positive around 600 ms, which is called the P600 (see Osterhout & Holcomb 1992). Moon et al.'s experiment showed that intervention effect sentences elicited the N400. Based on the results of the experiment, they claim that the intervention-effect sentence is pragmatically problematic due to presupposition failure. This claim is similar to Moon (2008), and cannot avoid the same problems that it has. Pragmatically, if the presupposition is not true, the utterance may not be felicitous. However, it can be true of any utterance. In addition, they do not explain why the intervention effect is cancelled in the scrambled version (See also Noh 2010).

However, their attention on presupposition is in fact very suggestive and insightful. Judgements on the intervention-effect sentences are closely related to what is presupposed and what is not. I am going to suggest another pragmatic approach to intervention-effect sentences in section 3. It also uses the notion of presupposition, but the detail is different from the previous pragmatic accounts.

Finally, all of the pragmatic accounts I presented above do not deal with echo questions. My account can explain why the intervention effect does not arise even when the NP-*man* precedes the WH-word.

3. A Cognitive Account of the Intervention Effect

3.1 The Focus of Intervention Effect Sentences

The intervention effect can be explained in terms of our cognitive process of the sentence. Consider (13), repeated from (1) above:

- (13) a. *Minswu-man mues-ul po-ass-ni?
 Minswu-only what-Acc see-Pst-Q
 b. Mues-ul Minswu-man po-ass-ni?
 what-Acc Minswu-only see-Pst-Q
 ‘What did only Minswu see?’

When the hearer processes (13a), he may interpret *Minswu-man* 'Minswu-only' as a focus. It presupposes (14a), and asserts (14b) (see Horn 1969)⁷:

- (14) a. Minswu saw something.
 b. Nobody else saw it.

Then the hearer comes to process *mues-ul*. If it is intended to be an indefinite pronoun meaning 'something,' it can be interpreted as such. If it is interpreted as a WH-word, it needs to be interpreted as the focus of the question. (A WH-word is the focus of a WH-question. (See also Ertechik-Shir 1986 and Tomioka 2007). Then (15) is interpreted as a presupposition of (13a):⁸

- (15) Only Minswu saw something.
 a. Minswu saw something
 b. Nobody else saw it.

If both *Minswu-man* and *muesul* are interpreted as foci in (13a), there is a

⁷ Taglight (1984) claims that both (14a) and (14b) are entailments of 'Only Minswu saw something.'

⁸ Levinson (1983: 184) states "WH-questions introduce the presuppositions obtained by replacing the WH-word by the appropriate existentially quantified variables, e.g. *who* by *someone*, *where* by *somewhere*, *how* by *somehow*, etc.,"

conflict: The same thing 'Nobody else saw it' is presupposed by the WH-word *muesul* ((15b)) and at the same time questioned by the focus *Minswuman* 'Minswu-only' ((14b)). This is why the intervention-effect question is considered to be undesirable. In syntactic accounts, both *Minswu-man* 'Minswu-only' and *muesul* 'what' are treated as foci.

However, facing the conflict, most people may reanalyze *Minswu-man* as part of old information. Then, the conflict is solved. That is why some people find (13a) is not problematic. Thus, different judgements are due to different assumptions or analyses on the (potential) intervener *Minswu-man*.

The previous accounts that the intervention-effect sentence is not ungrammatical, actually consider *Minswu-man* as part of old information, although they still call it a focus. Wee (2007) claims that if the WH-word in an intervention-effect sentence is stressed, as in (16) (Capital letters mean the word is stressed), the sentence becomes grammatical. She presents its information structure as in (17):

(16) inswu-man MUES-UL mek-ess-ni?

Minswu-only what-Acc eat-Pst-Q

'What did only Minswu eat?'

(17)

(foreground) focus	Q F2	what2
(background) presupposition	only F1 Minsu1 ate x2	

In (17), Wee puts 'only Minsu' in the presupposition-part.

Moon (2008) claims that intervention-effect sentences are grammatical if the presupposition is satisfied. As we have seen in section 2.2, she also presents (15) as the presupposition of (13a). That is, she also considers *Minswu-man* as presupposed, although she calls it a focus. Even Tomioka (2007), who claims the intervention-effect sentence to be only pragmatically unnatural, analyses the WH-word as the focus, and the (potential) intervener (such as *Minswu-man*) as ground (old information).

Sentences with multiple foci are claimed to have the same intervention effect as the WH-question with a focus. The seemingly counter-examples can also be explained in a similar way. Consider (18)-(19):

- (18) I also only introduced Marilyn to **BOB** Kennedy.
 = Bob Kennedy is another person that I introduced only Marilyn to.
- (19) A: Mues-ul Minswu-man mek-ess-ni?
 what-Acc Minswu-only eat-Pst-Q
 ‘What did only Minswu eat?’
- B: [Minswu-man]_F [sakwa-lul]_F mek-ess-e
 Minswu-only what-Acc eat-Pst-DC
 ‘Only Minswu ate apples.’

The example (18) is taken from Beck (2006: 32) and (19), from Wee (2007: 636). Beck and Wee give their own accounts. However, in my view, they do not have the intervention effect because they are not multiple focus structures. In (18), as can be seen in the paraphrase given by Beck herself, *only-Marilyn* is part of old information, and the focus is only in the association between *also* and *Kennedy*. Similarly, Wee claims that (19B) is a multiple focus construction, where *Minswu-man* ‘Minswu-only’ and *sakwa-lul* ‘apples’ are foci. However, because of the previous utterance (19A), *Minswu-man* is not a focus any more in (19B). Thus, most accounts that the intervention effect does not arise consider the NP-*man* as presupposed.

3.2 Scrambled Sentences

As we have seen above, it is generally agreed that the intervention effect is cancelled in a scrambled question as in (13b) (= (1b)). In my view, in (13b), the hearer interprets the WH-word *muesul* as the focus and *Minswuman* ‘Minswu-only’ as old information on a first processing. It is not clear whether there is a hierarchy in all potential foci, but in a WH-question, the WH-word can have a priority because the word order (e.g., in English) or a sentence-type suffix (e.g., in Korean and Japanese) makes it clear that the sentence is an interrogative. Once the *muesul* is interpreted as a WH-word, *Minswu-man* is more likely to be interpreted as old interpretation. Otherwise, the interpretation may have the same problem that the intervention effect sentence has.

Tomioka (2007) analyses that everything placed after the WH-word belongs to ground (old information, presupposition). In his account, (13b) is acceptable because

ATI *Minswu-man* is not in a topic position. In my view, it is acceptable because *Minswu-man* is interpreted as part of old information. Intervention effect arises when both *Minswu-man* and *muesul* are interpreted as foci.

Then, why is (13b) (= (1b)) (WH-word \frown NP-*man*) preferred to (13a) (= (1a)) (NP-*man* \frown WH-word), even when the NP-*man* is not a focus? My cognitive account can answer this question. According to relevance theory, the hearer follows the relevance-theoretic comprehension strategy, as in (20):

(20) *Relevance-Theoretic Comprehension Strategy*

- (a) Start deriving cognitive effects in order of accessibility (follow a path of least effort);
- (b) Stop when the expected level of relevance is achieved.

The strategy in (20) states that the addressee takes the most accessible interpretation if it is relevant to him. In this sense, (13a) is not desirable since it makes the hearer interpret *Minswu-man* as a focus first, and then reanalyze it as presupposed. In contrast, in (13b), *Minswu-man* is interpreted as a presupposition on a first pass. (13a) takes more processing effort without any additional cognitive effect than (13b) does. That is why (13b) is preferred.

Finally, (21B) will be preferred to either (13a) or (13b):

- (21) A: Minswu-man muesul po-ass-e.
 Minswu-only something-Acc see-st-DC
 'Minswu saw something.'
- B: Minswu-ka mues-ul po-ass-ni?
 Minswu-Nom what-Acc see-Pst-Q
 'What did Minswu see?'

If it is presupposed that there is something that only Minswu saw, we do not have to repeat 'Minswu-only.' Just *Minswu* is sufficient. Repeating 'Minswu-only' is not only unnecessary but also undesirable, because it takes more processing effort without an additional cognitive effect. That is a reason why both (14a) and (14b) are somewhat uncomfortable, though not infelicitous, even when 'Minswu-only' is interpreted as old information.

4. Intervention Effects and Echo Questions

Intervention effects are weak in echo questions. Beck and Kim (1997: endnote 5) state “Note that (7a) [an intervention-effect sentence] is okay as an echo question. Some of the examples in this paper could be interpreted with an echo reading.” Ko (2005) also comments “The sentence in (18a) [an intervention-effect sentence], however, does not have this reading. It is at best an echo question for most speakers.” Beck (2006) adds a note on one of his intervention-effect sentences that it is possible as an echo question. However, there are few accounts to explain why the potential intervention-effect sentences are acceptable as echo questions. The pragmatic accounts we have discussed above (Tomioka 2007; Wee 2007; Moon 2008; and Moon et al. 2009) do not deal with echo questions, either.

My cognitive account can explain why the intervention effect does not arise in echo questions, using the notion of metarepresentation defined and used in relevance theory. Our thoughts and utterances can be used to represent states of affairs. These are representations. Our thoughts and utterances can also be used to represent others' utterances or thoughts. These are metarepresentations. Metarepresentations do not have to be identical with the original. In relevance theory, metarepresentation is defined as representing another representation by resemblance, and the degree of resemblance is determined by considerations of optimal relevance⁹ (see Noh 2000; Wilson 2000, for more elaboration).

We use echo questions when we did not hear what was said properly or when we want to clarify what we heard. These echo questions are a type of metarepresentational question. Questions about others' thoughts are another type of metarepresentational question (see Noh 1998).

As is generally agreed, the intervention effect is very weak in an echo question. Consider (22):

- (22) A: Minswu-man sangcinghak-ul kongpuha-yss-e.
 Minswu-only symbology-Acc study-Pst-DC
 'Only Minswu studied symbology.'

⁹ *Presumption of Optimal Relevance* (Sperber and Wilson 1995:275)

(a) The ostensive stimulus is relevant enough for it to be worth the addressee's effort to process it.

(b) The ostensive stimulus is the most relevant one compatible with the communicator's abilities and preferences

B: Minswu-man mues-ul kongpuha-yss-ta-ko?
Minswu-only what-Acc study-Pst-DC-QT
'Only Minswu studied what?'

B's question in (22) is an echo question of A's utterance, which is acceptable syntactically and pragmatically.

The questions in (23) are not traditionally defined echo questions, but they are still echoic or metarepresentational, in the sense that the speaker is asking the addressee about his thought:

- (23) a. Minswu-man mues-ul kongpuh-ass-nuntey?
Minswu-only what-Acc study-Pst-Con
b. Minswu-man mues-ul kongpuh-ass-kilay?
Minswu-only what-Acc study-Pst-Con
c. Minswu-man mues-ul kongpuh-ass-ci?
Minswu-only what-Acc study-Pst-SE
'What did only Minswu study?'

The questions in (23) can be used to ask the addressee's thought (or knowledge), and thus, they can be conjoined or followed by a question such as "Why did you ask him to do the work?" or "Why did you choose him?" These questions are acceptable (grammatical and felicitous) even though 'Minswu-only' precedes the WH-word. The questions in (22)-(23) are all metarepresentational.

Then why are metarepresentational questions free from the intervention effect? I think that it is because the potential intervener 'Minswu-only' is not a focus in these questions. It was already used in the original representation, so that it is not new information in a metarepresentation. While metarepresentation can have less information than the original, it cannot have more information than it. Thus, an NP-*man* cannot be used in a metapresentation newly, as in (24)-(25):

- (24) A: Only John studied symbology.
B: John studied what?/Only John studied what?
(25) A: John studied symbology.
B: John studied what?/*Only John studied what?

'Only John' can be metarepresented as 'only John' or 'John', but 'John' cannot be metarepresented as 'only John.' Thus in an echo question, an NP-*man* cannot be new information, and thus it cannot be a focus.

In the previous studies, some analyze interveners as focused or focus-sensitive expressions (e.g., Beck 2006), some (e.g., Tomioka 2007) as anti-topic items, and others as topics (e.g., Moon 2008). Although their ideas are all different, what they share in common is that they often do not consider that the same expression can be a focus in one sentence, and old information in another. Once they admit that an NP-*man* can be used as old information as well as new information (a focus), many things can be explained. Moreover, any expression can be used as a metarepresentation, which cannot have more information than the original representation. That is why an NP-*man* is not a focus in echo questions, and thus no intervention effect arises in echo questions.

5. Conclusion

This paper has suggested a pragmatic account of the intervention effect, focusing on a Korean WH-question with an NP-*man* and WH-word *mues* 'what' within the framework of relevance theory. A WH-question with the focused NP-*man*, has a problem in interpretation: the NP-*man*, as a focus, asserts the proposition 'Nobody else ...,' which is to be questioned in a question, and at the same time, it has to be interpreted as discourse-old (or presupposed) when the WH-word is the focus of the WH-question. Presupposing something and questioning it at the same time makes the interpretation problematic.

Since interpreting both the NP-*man* and the WH-word as foci results in a conflict, the hearer is likely to reanalyze the NP-*man* as discourse-old (presupposed). He chooses the NP-*man* for reanalysis, since in a WH-question, the WH-word needs to be the focus of the question. When the NP-*man* is reinterpreted as presupposed, the intervention effect does not arise. Actually, we have seen that linguists who claim that the intervention-effect sentence is not ungrammatical often analyze the NP-*man* to be presupposed. Intervention-effect sentences are semantically unacceptable when both the (potential) intervener and the WH-word are interpreted as foci. If the (potential) intervener is interpreted as discourse-old (presupposed or

metarepresented), there is no intervention effect. This can explain why there is a variation in the grammaticality judgement of intervention-effect sentences.

Even when the NP-*man* is not a focus, the scrambled sentence where the WH-word precedes the NP-*man* is preferred. In my view, it is related to our cognitive process. In the (potential) intervention-effect sentence, the NP-*man* is interpreted as a focus first and then reanalyzed as presupposed after the WH-word is processed as a focus. In a scrambled sentence, the NP-*man* is more likely to be interpreted as presupposed (discourse-old, given) on a first pass because the WH-word has been interpreted as a focus already. Because of this difference in processing effort, the scrambled version is preferred.

Finally, I have pointed out that in echo questions, an NP-*man* is metarepresented (echoed). As a metarepresentation, it is not a focus any more. That is why the intervention effect does not arise in echo questions. Other metarepresentational questions which are not traditional echo questions do not have the intervention effect, either, since the NP-*man* in those questions is not a focus, either.

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