On the Intervention Effect Caused by Korean *-man*

Ilkyu Kim[†]

Kangwon National University

ABSTRACT

This paper aims to shed light on the nature of the intervention effect, focusing on Korean *-man* 'only'. Two most recent studies on the intervention effect caused by Korean *-man* are critically reviewed, and a new analysis is proposed based on 1) distinction between psychologically salient and non-salient presuppositions, which is based on the notion of the strong contextual felicity, 2) two characteristics of language processing, namely, the serial order of linguistic input and the interactive parallel processing, and 3) different informational statuses of the prejacent meaning of *-man* depending on different contexts. The current analysis is superior to the two previous studies in that 1) the source of the intervention effect proposed here is psychologically more plausible and that 2) it is compatible with the within- and inter-individual variability among speakers with respect to the degree of the intervention effect.

Keywords: intervention effect, information structure, psychologically (non-)salient presuppositions, strong felicity condition, *-man*, Korean

1. Introduction

When some types of expressions c-command a *wh*-phrase at S-structure, it causes unacceptability. This phenomenon is called *intervention effect*, with the expression c-commanding the *wh*-phrase called an *intervener*. An example of the intervention effect is shown in (1).

(1) a. ???John-man   mwues-ul   mek-ess-ni
        John-only   what-Acc   eat-Past-Int
        'What did only John eat?'

   b. mwues-ul   John-man   mek-ess-ni
        what-Acc   John-only   eat-Past-Int
        'What did only John eat?'

In (1a), the sentence is usually considered unacceptable because the *-man*-marked phrase (i.e. *John-man* 'only John') acts as an intervener, which c-commands the *wh*-phrase *mwues-ul* 'what-Acc' at S-structure. As shown in (1b), the intervention effect disappears once *John-man* follows (and thus does not c-command) the *wh*-phrase.

There have been basically two different approaches to the nature of the intervention effect: syntactic and semantic/pragmatic. Those who take a syntactic approach try to explain the difference in acceptability between examples like (1a) and (1b) mainly based on different syntactic relations between an interveners and a *wh*-phrase (e.g. Huang: 1982; Chomsky 1986; Rizzi 1990), whereas those taking a semantic/pragmatic view rely and focus on semantic/pragmatic effects caused by the different syntactic/linear relation between them (e.g. Beck & Kim 1997; Beck 2006; Tomioka 2007; Wee 2007; Moon 2008; Noh 2011; Kim 2012).

The purpose of this paper is to shed light on the nature of the intervention effect, focusing on Korean *-man* 'only'. In doing so, I will discuss problems of the most recent analyses of the intervention effect caused by *-man*, which are provided by Noh (2011) and Kim (2012), and propose a new analysis.[1] The new analysis will be based on three important facts that have been either ignored or not taken seriously by previous research dealing with the issue at hand, namely, 1) distinction between two types of presupposition, namely, presupposition that becomes (psychologically) salient by the presupposition trigger and one that is not psychologically active but only logically guaranteed by the trigger, 2) two characteristics of language processing, namely, serial order of linguistic input and its interactively parallel nature, and 3) different statuses of the exclusive meaning of *-man* in terms of whether it is proffered or presupposed, depending on in which context or syntactic construction it is uttered.

The structure of the paper is as follows. In section 2, Noh's (2011) pragmatic and Kim's (2012) semantic analyses of why sentences like (1a) are unacceptable will be critically examined and the solution to their problems will be proposed. Then, section 3 deals with why sentences like (1b) are acceptable. Here, Noh and Kim's analyses of the matter will also be discussed first, after which a new analysis will be provided. Finally, section 4 concludes the paper.

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1) See Noh (2011) and Kim (2012) for problems of other previous works both from the syntactic and semantic/pragmatic approaches.

2. Why is (1a) unacceptable?

2.1. Noh (2011)

According to Noh (2011), the intervention effect in (1) arises due to the conflict between the same proposition's being presupposed by a *wh*-word and at the same time questioned (or proffered[2]) by the intervener. Her claim is based on three assumptions: 1) "*wh*-questions introduce the presuppositions obtained by replacing the *wh*-word by the appropriate quantified variables, e.g. *who* by *someone*, *where* by *somewhere*, *how* by *somehow*, etc." (Levinson 1983: 184), 2) the meaning of *only* consists of one presupposition and one assertion, as shown in (2)[3], and 3) old (and thus presupposed) information cannot be proffered.

(2) Only (x=a, Fx)
　　P[resupposition]: Fx
　　A[ssertion]: $\neg(\exists y)$ (y≠x & Fy)

<div align="right">Horn (1969: 99)</div>

If these three assumptions are accepted, sentences like (1a), repeated below, is predicted to be unacceptable because what is proffered by the meaning of *-man* 'only', that is, $\neg(\exists y)$ (y≠John & Eat(y)), also must be presupposed by the use of the *wh*-phrase (i.e. *mwues-ul*), thus giving rise to contradiction.

That is, the use of *mwues* 'what' makes the meaning of the rest of the sentence presupposed (or non-proffered), which is 'Only John ate something', and since *-man* is part of this presupposition its exclusive meaning (i.e. 'No other person ate something') cannot be proffered but presupposed. Noh attributes the unacceptability of (1a) to this conflict caused by the fact that what is supposed to be proffered (by *-man*) is actually presupposed (by *mwues*).

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2) The term *proffered* is used to generalize over cases in which the utterance with *-man* "is used to make an assertion, to pose a question, or to make a suggestion" (Roberts 2011: 44).

3) Note that the distinction between asserted and presupposed components is accepted by most, if not all, analyses of the meaning of *only*. For instance, Horn's (1969) analysis in (2), which is one of the earliest works on the meaning of *only* and adopted by Noh, treats the exclusive meaning as an *assertion* and the prejacent as a *presupposition*. Similarly, Roberts (2011), one of the most recent works on the issue, also takes the exclusive as what is *proffered* and the prejacent as what is "*backgrounded projective meaning*" (Roberts 2011). In other words, although the exact nature of the prejacent of *only* has not been understood clearly (Simons et al. 2010), there is no doubt that the two implications have different statuses regarding whether they are proffered or presupposed/ backgrounded. This paper also adopts this position.

A crucial problem with this analysis is that the first assumption that *wh*-questions introduce a presupposition, contra Noh, is unlikely to be the real cause of the unacceptability for (1a). The reason is that this notion of presupposition is only based on a logical definition, and this "logical presupposition", at least in this case, is unlikely to be really evoked in the minds of discourse participants when *wh*-questions are uttered. Note that the source of the intervention effect is argued to be the uneasiness felt by discourse participants when they are forced to treat the same proposition to be presupposed and proffered at the same time, but if that uneasiness exists only logically but not psychologically, the claim loses its empirical justification. To understand that *wh*-questions themselves cannot actually evoke the presupposition introduced by Noh (and Levinson) in the hearer's mind, let us compare (3a) and (3b) below.

(3) a. John-i   mwues-ul   mek-ess-ni
       John-Nom   what-Acc   eat-Past-Int
       'What did John eat?'
    b. John-i   mek-un   kes-i   mwe-ni
       John-Nom   eat-Adn   thing-Nom   what-Int
       'What is it that John ate?'

The difference between (3a) and (3b) is that (3b) is felicitous only if both the speaker and the hearer believe that John ate something, that is, if the belief that John ate something is salient in the interlocutors' minds, whereas (3a) is felicitous even if the event of John's eating something is not shared among discourse participants. Instead, (3a) can be felicitous as long as the speaker, but not the hearer, believes that John ate something.[4] For instance, *He ate nothing* can be a fully acceptable answer to the question in (3a), and it is not hard to find this kind of conversation in real life (e.g. *What did John eat for dinner yesterday? He ate nothing. He's on a diet.*).

It is important to note that when one finds (1a) unacceptable, it is not only from the speaker's but from the hearer's point of view. And we have just seen that the alleged presupposition (i.e. 'Only John ate something.') does not necessarily arise or become salient in the hearer's mind when she hears (1a). Thus, Noh's account, though it can logically explain the unacceptability based on the "logical" definition

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4) A reviewer correctly pointed out that the meaning of *mwues* (and its contracted form *mwe*) can be not only 'what' but 'something' in Korean. In this paper, the meaning of *mwues* is used only as it is glossed, but not ambiguously.

of presupposition, cannot capture the (psychologically) real source of the unacceptability that one feels when one hears (1a).

2.2. Kim (2012)

Just like Noh (2011), Kim basically adopts the meaning of *only* proposed by Horn and Levinson's view that a *wh*-question introduces a presupposition with the *wh*-phrase replaced by a variable. Then, Kim (2012) attributes the intervention effect to the uninterpretability of the sentence due to the universal quantifier introduced by *-man* taking scope over the existential quantifier introduced by the *wh*-question, as shown in (4b).

(4) The presuppositions induced by the *wh*-question in (1a) (Kim 2012: 538-539)
   a. $\exists x \in g(c)$ [p=λw.EAT$_w$(JOHN)(x)]
   b. $\forall y \in$ALT(JOHN) [p=λw.$\exists x \in g(c)$ [EAT(y)(x) $\rightarrow$ y=JOHN]]

(4a) and (4b) are the presupposition and assertion parts of the meaning of *-man* respectively, with the *wh*-phrase replaced with a variable *x*. For the same reason provided by Noh, (4b) loses its status as an assertion and is taken to be presupposed. Thus, according to Kim, there are two presuppositions for the whole sentence (i.e. (1a)), that is, 'John ate something' (4a) and 'no one except for John ate anything' (4b). Here, note that the second presupposition has such meaning because the universal quantifier takes scope over the existential quantifier. Kim then argues that what the question (i.e. (1a)) asks can be divided into two parts, namely, 'John ate something. What is it?' and 'No one except for John ate anything. What is it?'. The first part is no problem, but she argues that the second part leads to semantic contradiction because it is impossible to ask what someone ate when she ate nothing. According to Kim, this is the source of the intervention effect.

Kim's analysis is problematic at least in two respects. First, her very claim that there is semantic contradiction in (1a) seems not on the right track. Let us look at the meaning of (4b) in more detail. Note that (4b) can also be interpreted as 'For all the members in the set ALT(JOHN), there exists something that if any member of the set ate it, it is John.' With this understanding of (4b), it appears to be totally plausible to ask what it is that only John could have eaten when nobody else ate anything. In fact, even if we accept Kim's claim that the meaning of (4b) is incompatible with the meaning 'what is it?', there is still some suspicious aspect in

her analysis. That is, it is not clear why the question need be divided into two sub-questions. If the presuppositions are not treated separately but conjoined by the logical conjunction, which I think is the way they can and should be, then we get a semantically sound question, that is, 'John ate something and no one except for John ate anything. What is it?'.

Second, it is hard for Kim's analysis to explain the fact that the acceptability of (1a) differs from person to person. Although the standard view sees sentences like (1a) as categorically unacceptable, it has long been observed that their acceptability is gradable and different speakers have different intuitions about their acceptability. More importantly, as will be shown below in 3.3, (1a) can be totally acceptable if the proper context is provided. In fact, Kim also acknowledges the gradable nature of the intervention effect, but she does not discuss how her semantic approach can deal with the issue. Since she attributes the intervention effect to the semantic (but not pragmatic) implausibility based on the different scopes of the universal and existential quantifiers, it predicts categorical rather than gradable unacceptability.

2.3. New proposal

If Noh (2011) and Kim's (2012) analyses are "unrealistic", what should be the real source of the intervention effect, or the unacceptability of (1a)? In fact, the analysis to be proposed in this paper is similar to Noh's in that the intervention effect is basically attributed to *the conflict between what the hearer expects to hear and what she actually hears*.[5] However, instead of understanding the conflict by looking at the proffered meaning of *-man* and the presupposition of the *wh*-phrase, I propose to find out the conflict *between what is presupposed*[6]*by -man and what is proffered by the wh-phrase*.

The key to understanding the nature of the intervention effect is to consider 1) the two different types of presupposition, 2) two characteristics of language processing, and 3) different statuses of the two components of the meaning of *-man* in different

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5) Considering the temporal order of words in online comprehension, Noh's claim is equivalent to saying that the hearer first expects the exclusive meaning of *-man* to be proffered (since *-man* is heard before the *wh*-phrase), but what she actually finds later is that the same meaning is (or should be) presupposed due to the *wh*-phrase.

6) Although Noh (2011) and Kim (2012) take the prejacent implication of *only* to be presupposed, the exact nature of the prejacent is still controversial, as mentioned in footnote 3. But in this paper, I will stick to the term *presupposition* to refer to the prejacent of *-man* (and *only*) just for convenience. For a brief history of how the nature of the meaning of the prejacent of *only* has been analyzed, see Roberts (2011).

contexts in terms of whether they are proffered or presupposed.

2.3.1. "Psychologically salient" presupposition vs. "psychologically nonsalient" presupposition

In 2.1, we have seen that Noh's account of the intervention effect is hard to get empirical support because it is based on a logical definition of presupposition, whose psychological salience is not guaranteed. Given that the intervention effect is not a logical but psychological phenomenon in that it corresponds to the unacceptability felt by the hearer, the correct account of the intervention effect must draw on a psychologically plausible reason for the hearer's feeling unacceptability. For that purpose, I will first show, in this subsection, that two types of presuppositions exist depending on whether they are psychologically salient or not.

Psychologically (non-)salient presupposition can be defined based on the notion of strong contextual felicity (Tonhauser et al. 2013). Tonhauser et al. argue that projective meanings (including what are traditionally known as presuppositions) can be distinguished from each other depending on whether they conform to a constraint called the strong contextual felicity constraint, which is defined in (5) below.

(5) Strong contextual felicity constraint: If utterance of trigger t of projective content m is acceptable only in an m-positive context, then t imposes a strong contextual felicity constraint with respect to m.

(Tonhauser et al. 2013: 76)

As to the notion of m-positive (and m-neutral) context, Tonhauser et al. provides the definition in (6).

(6) m-positive and m-neutral contexts: An m-positive context is an utterance context that entails or implies m. An m-neutral context is an utterance context that entails or implies neither m nor ¬m.

(Tonhauser et al. 2013: 76)

Given the definitions provided in (5) and (6), it is now evident that the prejacent of -man conforms to the strong contextual felicity constraint while the presupposition generated by a wh-phrase in a wh-question does not. First, we have already seen that a typical wh-question is acceptable in an m-neutral context in 2.1 above, but

let us confirm it with another example.

(7) A: Mary-nun   cemsim-ulo   phasutha   mek-ess-e
       Mary-Top   luch-for   pasta   eat-Past-Dec
    B: John-un   cemsim-ulo   mwe-l   mek-ess-ni
       John-Top   lunch-for   what-Acc   eat-Past-Int
       'What did John have for lunch?'
    A: amwukes-to   an   mek-ess-e
       nothing-too   not   eat-Past-Dec
       '(He) had nothing.'

Here, (7B) is uttered in an *m*-neutral context with respect to the presupposition triggered by *mwe* 'what', that is, 'John had something for lunch today.', since that information is not given in the prior context. Furthermore, the fact that the answer to (7B) is totally acceptable makes it clear that (7B) can be uttered in an *m*-neutral context.

In contrast, the conversation in (8) shows that the presupposition triggered by *-man* is constrained by the strong contextual felicity constraint.

(8) A: John-un   phathi-eyse   mwe   com   mek-ess-ni
       John-Top   party-at   something   a little   eat-Past-Int
       'Did John eat anything at the party?
    B: mol-la. (after a few seconds)   ah, phasutha(??-man)   mek-ess-e
       not know-Dec   oh, pasta(??-only)   eat-Past-Dec
       '(I) don't know. (after a few seconds) Oh, (he) ate (??only) pasta.'

In (8), the context in which the sentence with *-man* is uttered is *m*-neutral since it does not entail or imply either the presupposition triggered by *-man*, that is, 'John ate pasta.' or its negation. Note that, in this case, the utterance with *-man* becomes infelicitous, or at least less felicitous than the utterance without it. In contrast, when a sentence with *-man* is uttered in an *m*-positive context, it is totally acceptable, as shown in (9).

(9) A: ne-n   umsik   mwe   cohahay
       you-Top   food   what   like
       'What is your favorite food?'

B: pica
   pizza
   '(I like) pizza.'

A: talun   ke-n
   other   thing-Top
   'Anything else?'

B: pica-man   cohahay
   pizza-only   like
   '(I) like only pizza.'

Here, we can see that B's second utterance is acceptable since it is uttered in an *m*-positive context, which is guaranteed by B's first utterance.

For our purposes, it is important to understand what it means for a presupposition to be sensitive to the strong contextual felicity constraint. If it is sensitive, it means that the presupposition is made psychologically so salient by its trigger that an utterance with the presupposition cannot be felicitous in a context where the presupposition is not already entailed or implied. On the other hand, if a presupposition is not sensitive to the strong contextual felicity constraint, it means that the presupposition is not psychologically salient (enough) and an utterance with it can be acceptable even in a context where it is not already entailed or implied.[7] Therefore, it would be better to be able to employ psychologically salient presuppositions than non-salient ones in accounting for the intervention effect, which is the presupposition triggered by -*man*, in this case, but not what is presupposed by *mwues*.

2.3.2. Two characteristics of language processing

Next, let us look at two characteristic of language processing that are relevant to understanding the nature of the intervention effect. First, human language processing is *interactively parallel* in nature. It has long been observed that in sentence comprehension, "[e]ach word, as it is heard in the context of normal discourse, is immediately entered into the processing system at all levels of description, and is simultaneously analyzed at all these levels in the light of whatever information is

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7) Note that the distinction between psychologically salient and nonsalient presuppositions proposed in this paper is different from the traditional threefold classification of presupposition, namely, semantic presupposition (Strawson 1950), pragmatic presupposition (Stalnaker 1974), and semantico-pragmatic/utterance presupposition (Karttunen 1974, Soames 1979), which is not directly based on the notion of psychological salience.

available at each level at that point in the processing of the sentence" (Marslen-Wilson 1975: 226). This characteristic of language processing guarantees that as soon as one hears *-man*, not only its phonological and morpho-syntactic contents but also its dual meaning is activated in one's mind, leading him/her to search for the meanings that can complete the two implications.

The second important characteristic of language processing is that language input is serial. As will be shown below, the proposed analysis of why (1a) is unacceptable and (1b) acceptable crucially depends on the temporal order of *-man* and the *wh*-phrase rather than the syntactically defined c-command relation between them.

2.3.3. Contextual influence on the status of the two components of the meaning of *-man*

Regarding different statuses that the two semantic components of *-man* get with respect to whether they are proffered or presupposed, it is important to note that the distinction between proffered and presupposed meanings is only valid when *-man* is part of what is proffered. If *-man* is part of what is presupposed, even the exclusive meaning must be presupposed as well.[8] The reason that the previous works on the meaning of *-man* and *only* does not take this fact into account is clear. What is interesting is the fact that there is something that is not proffered in the meaning of *only* (even) when it is part of proffered content; on the other hand, it is no surprise at all that both the prejacent and exclusive parts are presupposed when *-man* is part of what is presupposed.[9]

2.3.4. Analysis

Given this background, now we are ready to understand the nature of the intervention effect. In (1a), the first constituent one hears is the *-man*-marked phrase (i.e. *John-man* 'only John'), and as soon as it happens, its meaning, which comprises the prejacent and the exclusive, comes to be automatically activated in the hearer's mind, as in (10).

(10) a. Prejacent meaning: P(John)
   b. Exclusive meaning: $\neg (\exists y) (y \neq \text{John} \ \& \ P(y))$

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8) This point is important for understanding why (1b) (and even sometimes (1a)) is felt to be acceptable and will be discussed in more detail below.

9) But see Abbott (2000) for possibly exceptional cases.

What is important here is that with the activation of the meaning in (10), the hearer, by default, is led to expect the prejacent and the exclusive to be presupposed and proffered respectively, because she tends to take the meaning of *-man* to be part of what is proffered, which is totally understandable given that no context is given to her that guarantees the presupposed status of *-man*. That is, it is basically much more natural to accept any part of an utterance as what is proffered than what is presupposed unless there is any reason not to do so. (What is the point of uttering a sentence if it contains what is presupposed, or what is already shared by discourse participants?)[10]

What follows *-man* in (1a) (i.e. *mwues-ul mek-ess-ni* 'what-Acc eat-Past-Int'), however, violates the hearer's expectation. Particularly, it violates the hearer's expectation that the prejacent is presupposed. That is, the information about what John ate is expected to be taken for granted and treated accordingly in the utterance, since it is part of the prejacent of *-man* as indicated by (10a). However, what the speaker actually does is to inquire (and thus proffer) about what John ate, which is definitely not the way how the hearer expects the information to be conveyed by the speaker.

Furthermore, the fact that what is supposed to be presupposed is proffered leads to additional conflict between what the hearer has expected to be proffered (i.e. the exclusive meaning (10b)) and what is actually proffered. As soon as encountering *-man*, the hearer expects the exclusive implication to be the proffered content of the utterance, since no context is given that makes the exclusive implication presupposed. However, this expectation is violated by the speaker's questioning (and thus proffering) about what John ate. This conflict, together with the conflict discussed in the above paragraph, is well qualified to cause difficulty in interpreting the sentence, which would, in turn, act as the source of the unacceptability that the hearer feels when hearing sentences like (1a).

Again, it needs to be emphasized that although the analysis proposed here and Noh's (2011) are similar to each other in that both of them focus on the conflict between what the hearer expects to hear and what she actually hears, they are different from each other in one important respect. While Noh's account crucially relies on the psychologically non-salient presupposition induced by a *wh*-question, the proposed analysis only focuses on the proffering nature of a *wh*-question and the prejacent of *-man*, both of which are psychologically salient. This difference lets

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10) However, note that this is not given as a categorical constraint or rule but just a mere tendency, which will be crucial for explaining the existence of variability among speakers with respect to acceptability of the intervention effect.

the current proposal be more psychologically plausible than Noh's (and Kim's) account.

3. Why is (1b) acceptable?

3.1. Noh (2011)

Noh attributes the difference in acceptability of (1a) and (1b) to the difference in information status of the subject arguments in each example; that is, she claims that the subject in (1a) (i.e. *John-man*) is new information whereas that in (1b) is old information. It is important to note that, according to Noh, the status of the subject argument in (1b) as old information changes the status of the exclusive meaning of *-man* from what is proffered to what is presupposed. And the very fact that both the prejacent and the exclusive meanings of *-man* are presupposed leads to the acceptability of (1b), because the alleged source of the intervention effect, that is, the conflict between what is supposed to be presupposed by the *wh*-question and what is supposed to be proffered by the meaning of *-man*, is now gone.

As mentioned above, it is true that the meaning of *-man* or *only* does not always bifurcate between the proffered and presupposed components. When *-man* is attached to an element that is inside presupposed part of a sentence, the exclusive component of *-man* is necessarily presupposed as well. For instance, if *-man* is inside a noun complement, which is usually considered to be presupposed, its exclusive meaning cannot be proffered in the sentence.

(11) John-man   sakwa-lul   mek-un   iywu-ka   mwe-ni
     John-only   apple-Acc   eat-Adn   reason-Nom   what-Int
     'What is the reason that only John ate an apple?'

In (11), what is proffered is the question of why only John ate an apple. Here, it is important to note that the exclusive implication that no other person than John ate an apple is (taken to be) presupposed. Thus, Noh's account of why sentences like (1b) are acceptable seems to work fine.

However, her account of why the subject in (1b) is likely to (or should) be analyzed as old information is not convincing enough. Noh claims that it is interpreted as old information because the *wh*-phrase takes priority over the subject in its potential

to be focus. And as to why the *wh*-phrase has the priority, she claims that "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" (Noh 2011: 190).

First, it is hard to understand why the interrogative nature of the sentence makes the *wh*-phrase prior to the *-man*-marked phrase in terms of its focus status. If the meaning of *-man*, for instance, is never proffered and thus cannot be focus in an interrogative, her claim might make sense. However, it is apparent that a *-man*-marked phrase can be (part of) focus in interrogatives (e.g. *Did only John ate it?*). Unless a logical connection between the priority of a *wh*-phrase over *-man* and the interrogative nature of a sentence is provided, Noh's account of why the *wh*-phrase is more likely to be interpreted as focus (or new information) than the *-man*-marked phrase cannot be vindicated.

Moreover, even if it is the case that the *wh*-phrase takes priority over the *-man*-marked phrase due to the interrogative nature of the sentence, her claim is not without a problem. Most of all, it must be explained why the priority of the *wh*-phrase cannot prevent the subject argument from being old information in (1a). That is, (1a) is exactly the same as (1b) in that the sentence type is interrogative and there are both a *wh*-phrase and *-man*. Hence, in principle, nothing hinders the *-man*-marked phrase from being old information for the same reason that the *-man*-marked phrase in (1b) is old information.

3.2. Kim (2012)

In order to account for why (1b) is acceptable, Kim (2012) provides the following meaning as the presuppositions of (1b):

(12) a. $\exists x \in g(c) \; [p = \lambda w.EAT_w(JOHN)(x)]$
     b. $\exists x \in g(c) \; [p = \lambda w. \forall y \in ALT(JOHN)[EAT(y)(x) \rightarrow y=JOHN]]$

Note that in (12b), contrary to (4b), the existential quantifier corresponding to the *wh*-phrase now takes scope over the universal quantifier generated by the meaning of *-man*. According to Kim, this change in scope of the quantifiers gets rid of the semantic implausibility shown in (1a); hence, no intervention effect.

For the motivation for having different scopes of the two quantifiers relative to each other in (4b) and (12b), Kim adopts the view that in Korean the scope is determined by the linear order of words; that is, the universal quantifier takes scope

over the existential quantifier in (4b) because the *-man*-marked phrase precedes the *wh*-phrase, whereas the opposite is true in (12b) because the *wh*-phrase precedes the *-man*-marked phrase.[11]

However, it has already been claimed that (4b), contra Kim, does not necessarily give rise to semantic contradiction. If this claim is on the right track, attributing the difference in acceptability between (1a) and (1b) to the difference in the relative scope of the universal and existential quantifiers between (1a) and (1b) is misleading.

3.3. New proposal

I agree with Noh that the difference in acceptability between (1a) and (1b) can and should be attributed to different information statuses of the *-man*-marked phrases in each example; that is, oldness of the subject in (1b) and its newness in (1a). The reason that the *-man*-marked phrase in (1a) has a tendency to be new information is already explained above. The hearer tends to treat what she hears as proffered (and thus new) content unless there is any reason not to do so. The question is what makes the hearer take the *-man*-marked phrase in (1b) to be old information. In 3.1, we have seen that Noh's answer to this question is problematic.

Instead of relying on the priority of the *wh*-phrase over the *-man*-marked phrase in its potential to be focus (or new information), which is attributed to the fact that the sentence is interrogative, I focus on the pragmatic peculiarity of the [*mwues-ul* Subject Predicate] construction to which (1b) belongs.

In order to understand the peculiarity of the construction, let us compare it with the corresponding construction with the canonical word order, that is, the [Subject *mwues-ul* Predicate] construction.

(13) a. John-i   mwues-ul   mek-ess-ni
       John-Nom   what-Acc   eat-Past-Int
       'What did John eat?'
    b. mwues-ul   John-i   mek-ess-ni
       what-Acc   John-Nom   eat-Past-Int
       'What did John eat?'

---

11) Faced with a problem that the scope of *motun*, which corresponds to English *every*, is always lower than a *wh*-phrase in Korean interrogatives, Kim argues that the universal quantifier of *motun* is different from that of *-man* (and English *every*) in that it does not have the feature [+D], which causes quantifier raising. Kim claims that its lack of the feature is independently motivated by Kim's (2003) analysis of quantifiers in general.

Note that while (13a) can be felicitous in almost any context, the felicity of (13b) is allowed only in certain contexts. That is, (13b) is most felicitous when the following proposition is salient in both the speaker and the hearer at the time of utterance:

(14) $\exists(x)$ (Eat(John, x))

In other words, what is special about the [*mwues-ul* Subject Predicate] construction is that it imposes the strong contextual felicity constraint on the presupposition that it triggers. For instance, (1b) would be felicitous only if there is shared presupposition among discourse participants that there is something that only John ate.[12]

Note that this peculiarity of the [*mwues-ul* Subject Predicate] construction naturally accounts for why (1b) is acceptable. Because of the interactive parallel nature of language processing, when one hears *mwues-ul* in sentence initial position, the [*mwues-ul* Subject Predicate] construction is automatically activated (together with other constructions with sentence-initial *mwues-ul*). This activation of the construction, in turn, activates the proposition $\exists(x)$ (Predicate(Subject, x)) in the hearer's mind as the backgrounded meaning, just like *-man* activates exclusive and prejacent meanings. After hearing the whole sentence, the hearer can complete the presupposed meaning, which is 'There is something that only John ate'.

That sentence (1b) introduces this proposition as a presupposition eliminates the two conflicts present in (1a). That is, the very fact that the meaning of *-man* is part of what is presupposed in (1b) guarantees not only the prejacent but also the exclusive meaning to be presupposed; hence, no conflict between what the hearer expects to hear and what she actually hears in terms of whether it is presupposed or proffered.

Note that even (1a) can be acceptable as long as context guarantees that the meaning of *-man* is part of presupposed information.

(15) A: You know what? There is something only John ate at the party last night.
   B: Really? John-man   mwues-ul   mek-ess-ni
              John-only   what-Acc   eat-Past-Int
      'What did only John eat?'

---

12) This condition is certainly a necessary but not sufficient condition and there seems to be more conditions to be met. To find out the exact nature of the felicity condition(s) for the construction is beyond the scope of this paper.

Because of utterance (15A), the otherwise proffered implication of *only* becomes presupposed information by the time (15B) is uttered. In this case, (15B), which is the same as (1a), becomes acceptable. It is important to note that Noh's analysis, which tries to account for the intervention effect based on the logical presupposition of a *wh*-question, and Kim's analysis, which resorts to the semantic scope discussed above, cannot easily explain why (15B) can be acceptable.

The fact that variability exists among speakers in terms of acceptability of (1a) can also be more compatible with the analysis proposed here than the previous ones. Although the two components of the meaning of *-man* (and *only*) are, by default, taken to be presupposed and proffered in general, it is not unreasonable to assume that the degree to which they are treated so is different from speaker to speaker, depending on their previous experience with *-man* in different contexts and their pragmatic "ability" to create and manipulate fictive contexts when no context is given to them (such as in (1a) and (1b)). In other words, the degree of salience of the presupposition induced by *-man* may well vary among speakers, due to the quantitative and qualitative difference in their previous experience with the use of *-man* and in their mental flexibility to adapt themselves to uncomfortable situations caused by the violation of the strong contextual felicity constraint. And the difference in that degree may well be the source of the gradient nature of acceptability of (1a).

4. Conclusion

In this paper, I have critically examined Noh and Kim's analyses of the intervention effect caused by Korean *-man* and proposed solutions to their problems. As to the source and lack of the intervention effect, a more psychologically plausible explanation was provided based on the notion of psychologically (non-)salient presupposition, the (temporally) serial and (interactively) parallel nature of language processing, and different informational statues the prejacent of *-man* gets depending on different contexts.

Although *-man* is the only intervener that has been dealt with in this paper, it is important to note the intervention effect caused by other interveners such as *-cocha* 'even' and *-to* 'too' can be explained in exactly the same way, that is, by the conflict between what the hearer expects to hear (i.e. the presupposed part of *-cocha* and *-to*) and what she actually hears (i.e. proffering with a *wh*-phrase). That is, this analysis can be applied to any intervention effect caused by the interaction of an intervener

which triggers a psychologically salient presupposition and a *wh*-phrase which conflicts with the presupposition by its proffering nature.

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Ilkyu Kim
Assistant Profesor
Department of English
Kangwon National University
346 Jungang-ro, Samcheok-si, Gangwon-do 24341, Korea
E-mail: 81ilkyu@gmail.com