

On the Locus of the Interpretable Negative Feature in a Negative Sentence*

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Kramer and Rawlins (K & R 2009) analyze short answers *yes* and *no* to a polar question as sentence fragments involving TP ellipsis along the similar lines of Merchant's (2001, 2004) treatment of short answers to a content question. Their TP ellipsis analysis was mainly grounded on the following two factual claims in (i) and (ii) and the theoretical assumption in (iii): (i) Short answers to an outer negative question carry the same meaning as short answers to an affirmative question; (ii) Short answers *yes* and *no* to an inner negative question are neutralized as a negative meaning, which K & R (2009) dub as negative neutralization; and (iii) the interpretable negative feature of a negative sentence may reside in the higher or lower Σ . This paper, however, refutes the factual claim in (ii) (negative neutralization) and the theoretical assumption in (iii). It is shown that (ii) is not (at least not always) empirically supported, when corpus data is considered, and that (iii) faces non-trivial theoretical problems. This paper instead proposes that the interpretable negative feature resides in the higher Σ , treating an overt or covert negation morpheme in the lower Σ as pleonastic. The proposed higher negative theory draws further support from the scope widening effects of negation and polarity reversals displayed in NPI/N-word fragmental answers to a content question.

Keywords: short answer, polarity reversal, negative neutralization, ellipsis, semantic isomorphic condition, interpretable negative feature, higher/lower sigma (Σ)

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1. Introduction

Kramer and Rawlins (K & R 2009) observe that short answers *yes* and *no* to a polar question may or may not display polarity reversals depending on the polarity type of their antecedent polar question clause. According to them, short answers *yes* and *no* to an affirmative polar question and an outer negative question carry an affirmative and negative polar meaning, respectively; yet both short answers *yes* and *no* to an inner negative polar question carry a negative polar meaning, which they dub as ‘negative neutralization’. They try to account for the polarity-related meanings of short answers *yes* and *no* including the negative neutralization phenomenon in terms of TP ellipsis along the similar lines of Merchant’s (2001, 2004) treatment of fragmental answers to a content question. As will be clear later on, their TP ellipsis account goes through only under the assumption made in K & R (2009, footnote 5) that the locus of the interpretable negative feature in short responses may vary depending on the polarity value of the lower Σ P of the antecedent TP: if the lower Σ is headed by an overt negation morpheme, then an interpretable negative feature ([iNEG]) resides in the lower Σ ; otherwise, it resides in the higher Σ .^{1),2)} They maintain this heterogeneous approach to the locus of the interpretable negative feature so as to fulfill the semantic isomorphic condition imposed on ellipsis: the element that undergoes ellipsis is semantically identical to its antecedent. Of course the relevant semantic feature will be the interpretable polarity value for the construction to be dealt with.

1) What K & R (2009, footnote 5) assume is in fact that “the interpretable negative feature must appear as low as possible.” Thus, it normally appears at the lower Σ P, but it is forced to appear at the higher Σ P, when grammar requires it to do so. As ellipsis is subject to the semantic isomorphic condition, it forces the negative interpretable feature to appear at the higher Σ , when the antecedent TP does not contain an overt negation morpheme. It will be shown in Section 4, however, that this mechanism will lead to some non-trivial problems.

2) K & R (2009) do not elaborate on the exact position of the so-called higher Σ . It should be a C position (or one of the functional categories of the left periphery in the sense of Rizzi 1997), considering that it is assumed to take a TP as complement. We will also assume without any argument that the higher Σ is a C with a relevant feature, while the lower Σ is a NegP or AffP (affirmative phrase) with a relevant feature.

This paper points out, however, that their factual claim on the availability of the negative neutralization phenomenon is questionable and that their assumption on the locus of the interpretable negative feature faces a couple of non-trivial theoretical problems. It will be shown that negative neutralization is not (at least not always) empirically supported based on some corpus data. As for the locus of the negative feature, it will be argued that the interpretable negative feature invariably resides in the higher Σ (that takes TP as complement), while the lower Σ , i.e., the negative morpheme in a NegP, bears an uninterpretable negative feature, as a sort of negative concord word. The postulation of the interpretable negative feature at the higher Σ will be further motivated from scope widening facts of negation and from the availability of the traditionally called NPIs as short answers to a positive content question in a language like Korean and Japanese, a case which apparently violates the semantic isomorphic condition on ellipsis.

2. Short Answers, Negative Neutralization, and the Locus of [iNEG] in K & R (2009)

According to K & R (2009), short answers *yes* and *no* to a polar question may or may not display a polarity reversal, depending on the types of questions. Consider the following sets of question-answer pairs, cited from K & R (2009), for example:

- (1) **Positive Question, Positive Answer**
 A: Is Alfonso coming to the party?
 B: Yes. (= He is coming to the party.)
- (2) **Positive Question, Negative Answer**
 A: Is Alfonso coming to the party?
 B: No. (= He isn't coming to the party.)
- (3) **Outer Negative Question, Positive Answer**
 A: Isn't Alfonso coming to the party?
 B: Yes. (= He is coming to the party.)
- (4) **Outer Negative Question, Negative Answer**

A: Isn't Alfonso coming to the party?

B: No. (= He isn't coming to the party.)

(5) **Inner Negative Question, Positive Answer**

A: Is Alfonso not coming to the party?

B: Yes. (= He isn't coming to the party.) (Negative Neutralization)

(6) **Inner Negative Question, Negative Answer**

A: Is Alfonso not coming to the party?

B: No. (= He isn't coming to the party.)

The discourse pairs in (2) and (3) appear to display a polarity reversal, while all other pairs do not, simply given that positive questions are positively interpreted and negative questions are negatively interpreted.

There are two interesting points made in K & R (2009) about the meaning of short answers to polar questions. One is that an outer negative question behaves like a positive question in relation to the interpretation of the short answers. Thus, (3) and (4) behave like (1) and (2), respectively. Of more interest is their claim that short answer *yes* to an inner negative question conveys a negative meaning, as in (5), a phenomenon that K & R call 'negative neutralization'.

To account for the meaning of short answers, K & R treat short answers as fragments that involve TP ellipsis along the lines of Merchant (2001, 2004). As ellipsis is subject to the semantic isomorphic condition, the TP ellipsis analysis appears to naturally account for the meaning of short answers in (1), (3), (5) (=negative neutralization) and (6), where the elided TP seems to be identical in its polarity value to the TP in the antecedent question sentence: positive in (1) and (3); and negative in (5) and (6). Then what about the paradigms like (2) and (4)? They appear to violate the semantic isomorphic condition on ellipsis: the antecedent has a positive value, while the answer has a negative value. K & R try to avoid this problem by postulating that the negative morpheme in the elided TP is semantically positive, as the real negative feature resides in the higher Σ (See footnote 1.). Their structures of (1)~(6) are represented in (7)~(12) below, where [E] stands for an ellipsis feature in the sense of Merchant (2001, 2004); [iNEG] for an interpretable negative feature; and [uNEG] for an uninterpretable negative feature:

(7) **Positive Question, Positive Answer**

A: Is Alfonso coming to the party?

B: Yes. (=He is coming to the party.)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} ~~he~~ (<sub>[NegP] Neg)] [_{VP} is coming to the party]]]]³⁾
 |
 [E]</sub>

(8) **Positive Question, Negative Answer**

A: Is Alfonso coming to the party?

B: No. (=He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} No] [_{ΣP} Σ [_{TP} ~~he~~ [_{[NegP] Neg} [_{VP} is coming to the party]]]]]
 | | |
 [uNEG] [iNEG, E] [uNEG]

(9) **Outer Negative Question, Positive Answer**

A: Isn't Alfonso coming to the party?

B: Yes. (= He is coming to the party.)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} ~~he~~ (<sub>[NegP] Neg)] [_{VP} is coming to the party]]]]]
 |
 [E]</sub>

(10) **Outer Negative Question, Negative Answer**

A: Isn't Alfonso coming to the party?

B: No. (= He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} No] [_{ΣP} Σ [_{TP} ~~he~~ [_{[NegP] Neg} [_{VP} is coming to the party]]]]]
 | | |
 [uNEG] [iNEG, E] [uNEG]

(11) **Inner Negative Question, Positive Answer**

A: Is Alfonso not coming to the party?

B: Yes. (=He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} ~~he~~ [_{[NegP] Neg} [_{VP} is coming to the party]]]]]
 | |
 [uNEG, E] [iNEG]

(12) **Inner Negative Question, Negative Answer**

A: Is Alfonso not coming to the party?

B: No. (=He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} No] [_{ΣP} Σ [_{TP} ~~he~~ [_{[NegP] Neg} [_{VP} is coming to the party]]]]]
 | | |
 [uNEG] [uNEG, E] [iNEG]

3) K & R (2009) put the lower Neg within the parentheses because it is assumed to be empty in the structure and it does not have to be present.

The ellipsis feature E in the higher Σ suppresses its complement TP at PF, accounting for the availability of short answers in English, along the lines of Merchant's (2001, 2004) treatment of fragmental expressions. The lower Σ in the ellipsis site bears an interpretable negative feature only when the lower Σ of the antecedent TP is headed by an overt negation morpheme, as in (11) and (12).

K & R's (2009) TP ellipsis analysis along with the assumption on the varied position of the interpretable negative feature seems to neatly account for the meaning of short answers *yes* and *no* to a polar question, including the similar behaviors of the positive polar question and the outer negative question and the negative neutralization phenomenon. In the remainder of this paper, however, it will be revealed that negative neutralization is empirically questionable based on some corpus data and that the interpretable negative feature invariably resides in the higher Σ position.

3. What Corpus Data Says about Negative Neutralization

Although it is an important piece of evidence for K & R's treatment of short answers as fragments, the negative neutralization phenomenon, attested in (5), is not what every native speaker agrees on. Six native speakers⁴⁾ we consulted about the meaning of short answer *yes* in (5B) univocally respond that the short answer *yes* causes a lot of confusion about the polarity of the sentence and they would not answer the question with short answer *yes* for the intended reading, especially without any further background information.

Thus we collected some corpus data from COCA (Corpus of the Contemporary American English, available at <https://corpus.byu.edu>) and consulted two native speakers⁵⁾ about the meaning of short answer *yes* to inner negative questions embedded under relatively rich contexts.⁶⁾

4) They are all non-linguists and instructors at a college, two Americans, three Britons, and one Canadian.

5) These two are of the previous 6 native speakers: One is an American and the other is a Briton.

First of all, as expected from the six speakers' initial responses, there are very few instances of the pair of an inner negative question and short answer *yes*, although there are a large number of instances of the pair of an inner negative tag question and short answer *yes*. The overwhelming majority of the few instances of relevant examples (four out of the randomly chosen five examples) indicate that short answer *yes* conveys a positive meaning, contra the claim made in K & R (2009).

(13) Corpus Example #1

Source information

Date	1992 (19921125)
Title	Broken Families-Broken Holidays
Source	CNN_Sonya

Expanded context:

given Lithium. And I was wondering what the doctor feels about Lithium. I had also taken Xanax and Conoprin and Haldol. And all those made me very ill. But when I took the Lithium, something about the chemical imbalance, it straightened it out SONYA That's great. And as I understand, that is the drug of choice, is it not. Dr. FAWCETT: That's the first drug of choice for manic-depressive illness, Lithium Carbonate, yes SONYA And yet, aren't there times when the medication has been changed? **Gary, did you not tell us that you are on Lithium Plus?** Mr. GOLDSMITH: **Yes.** I've been on Lithium for 14 years, but about ten years ago, we added another form of medication, which Dr. Fawcett can comment on. The anti-convulsants, those are particularly good for manic-depressives who have problems more in the higher end SONYA I want to be sure that I understand this, Dr. Fawcett. One can not have a particular prescription, particular dose, and particular drug for the rest of your

6) The reason we limited the number of the consultants is because in most of the cases, the meaning is obvious from the context.

(14) Corpus Example #2

Source information:

Date	2002 (20021111)
Title	An interview with Augusta's Hootie Johnson
Author	By DOUG FERGUSON, AP Golf Writer
Source	Associated Press

Expanded context:

A: We have parties, four parties a year, and those are times that we have this camaraderie and this closeness. There are no guests. They are member parties. The members are together. # Q: You said you felt threatened by Martha's letter. # A: No. She threatened us. But I haven't felt threatened. # Q: What about Shoal Creek? Why did you not have a black member until 1990? # A: Shoal Creek has got nothing to do with this. Nothing. # Q: **Did you not have your first black member until '90?** # A: **Yes**, but that hasn't got anything to do... Racial discrimination and gender are two different things. Do you know of any constitutional lawyer that's ever said they were the same? Do you know any civil rights activists that said it was the same? Do you? It's not relevant. Nobody accepts them as being the same. # Q: How do you feel about comments from members who have... #

(15) Corpus Example #3

Source information:

Date	1992
Publication information	Pocket Books, New York
Title	Nightshade
Author	Laurell K. Hamilton

Expanded context:

"The Orianians seem to be able to either block my powers or..." p. 110 "Or what, Counselor?", "They are unemotional.", "Like Vulcans.", "No, Vulcans have emotions but have learned to con-

trol them. They are often unreadable, but there are flickerings of emotion. I can feel the strain, the strength of their control. With these people it's sometimes as if they have no emotions at all. Breck seems to find nothing wrong in working with us against his own people.", "**Do you not find that strange?**", "Yes, but it isn't strange to Breck. He truly believes that his loyalties still lie with the captain.", "But can we trust him, Counselor?", "With most things, yes, but..." She shrugged. "I can't read his deeper thoughts. I don't know why.", "And that makes you suspicious?", "The Orianians talk of a variety of empathic powers as if they were

(16) Corpus Example #4

Source information:

Date	1995 (19950223)
Title	Simpson Trial - Text - Day 20 - Part 15
Source	CNN_News

Expanded context:

right. But at any rate, the report you've just seen doesn't indicate how many lenses were there, is that correct? Det. TOM LANGE: That's correct. JOHNNIE COCHRAN: Now, sir, while you were at the scene there at Bundy after returning from Rockingham on that- on the morning of June 13th, there came a time when press arrived at the scene, isn't that correct? Det. TOM LANGE: Yes. JOHNNIE COCHRAN: And you saw the press out there, and they were taking video pictures? **Did you not see that?** Det. TOM LANGE: Yes. JOHNNIE COCHRAN: And I now want, Your Honor- with Your Honor's permission, mark as Defendant's next in order a videotape, and I want to ask the officer some questions regarding that videotape. Mr. Harris-Judge LANCE ITO: Ten forty-three. JOHNNIE COCHRAN: Ten forty-three, Your Honor. I think- I believed it's cued up. And I want to ask- Judge LANCE ITO: I'm sorry. Hold on just a

(17) Corpus Example #5

Source information:

Date	2012
Publication information	Apr 2012
Title	Sofia Vergara's Secrets
Author	Fussman, Cal
Source	Esquire

Expanded context:

slutty about a dental-floss bikini. You don't even think about it. The first bathing suit your mother buys you is in the shape of a triangle. # Is body taste here confusing for Latinas? Here, there's an emphasis on being skinny. # Well, in Colombia everybody's very voluptuous and you're supposed to be. You don't want to be skinny when all of your cousins are mermaids. You grow up thinking that's how beauty is. # I once read that you felt like you were born with lipstick on. **Do you not feel natural unless you're wearing makeup?** # Yeah. I love putting makeup on. I grew up watching my mother. Before my mother took us to school in the morning, she was taking her rollers out and putting on lipstick. Now I think, Where was she going? But in the moment it was normal. # Bottom line: A Latina is supposed to look as beautiful as possible at every moment? # Yes. # Are Latinas superstitious? # Don't ever

Except for the last example, in which *yeah* is used instead of *yes*, *yes* in the above examples conveys a positive reading.⁷⁾ Thus, the negative neutralization effect claimed in K & R does not seem to be empirically supported, at least not always.

Given that the negative neutralization reported in K & R (2009) is also true, at least for some speakers, then there should be at least two different groups of speakers: one with negative neutralization, and the

7) One of our consultants told us that all the negative polar questions exemplified here behave like sort of tag questions (*right?* or *am I correct?*), although there is no overt form of tag, and the short answers with *yes* confirm the questioners' expectations.

K & R (2009) take these examples to provide further evidence for their theory, as the TP part in the questions is positive. Notice, however, that the outer negative question has a copy of the negative operator *isn't* within the antecedent TP, as represented below:

(20) [Isn't [_{TP} Alfonso <isn't> coming to the party]]?

If there resides a lower copy of <isn't> in the question form and copies carry the identical features, it should be interpreted as negative and *yes* in (9B) should display a negative neutralization effect just as in the cases of the inner negative question, contrary to fact.

K & R (2009, footnote 6) are aware of this problem, and they try to circumvent this problem, suggesting the following two possibilities. One is that there is no negation head in the lower position as negation is treated as inflection of the auxiliary, following Zwicky and Pullum (1983). Another is to assume that there is no true negation in these examples and the only negative operator in the structure is metalinguistic negation. No matter whether a negation head exists or not for a contracted form of negation, what is clear is that the TP part in (20), i.e., *Alfonso isn't coming to the party*, is negatively interpreted, disproving the first possibility. The second solution suggested does not seem to bear any substantial argument and we do not have anything to say about this possibility.

A third problem arises with respect to the interpretation of short answer *yes* to an inner negative tag question. As mentioned earlier, inner negative tag questions are very frequently attested in COCA. Some of the examples are taken below:

(21) Corpus Example #6

Source information:

Date	1995 (19950327)
Title	Simpson Trial - Text - Day 41 - Part 2
Source	CNN_News

Expanded context:

I don't- the date I don't know, but after February- MARCIA CLARK: -when was- KATO KAELIN: -probably in March. MARCIA CLARK: Did you ever call her again after March? KATO KAELIN: There was some event that was held at the house for the Sunshine School, and I think she called me and then she came over, and I don't know what the date was, but it was after March, where I was putting up the chairs or something for the event. MARCIA CLARK: **And that related to the event, did it not?** KATO KAELIN: **Yes.** MARCIA CLARK: So, you were no longer calling each other as friends after when? After what point? ROBERT SHAPIRO: Objection, leading- Judge LANCE ITO: Sustained. MARCIA CLARK: At some point, did you stop calling each other on a friendly basis? KATO KAELIN: Yes. MARCIA CLARK: And, when was that? KATO KAELIN: I'd say beginning of March. MARCIA CLARK: Did Nicole tell you that she had felt betrayed

(22) Corpus Example #7

Source information:

Date	2004 (20040617)
Title	Interview With Father and Stepmother of Serial Killer Jeffrey Dahmer
Source	CNN_King

Expanded context:

would we call it -- a situation where they wanted to assuage the community. S. DAHMER: This was a trial to help appease the victims' families. They needed that trial KING Certainly he was sick. S. DAHMER: Obviously. He knew that. L. DAHMER: One attorney told me that they watched it and they said, oh, my god, his attorney, a 14-year-old or an apprentice attorney, a journeyman attorney could have done that. They were doing it, we felt and... KING: **All the families attended the trial, did they not?**

S. DAHMER: Oh, **yes** KING Did you have a tough time facing the families of the people he killed? S. DAHMER: Oh, yes. L. DAHMER: Yes. S. DAHMER: There were stares of hatred KING At you? S. DAHMER: Oh, yes, absolutely. L. DAHMER: We sat just motionless and sick to our stomach KING Was there any thoughts of not attending the trial? S. DAHMER: Only when he warned us not to. There were several

(23) Corpus Example #8

Source information:

Date	1993 (19930122)
Title	PART III-AUDIENCE QUESTIONS INVITED GUESTS
Source	Ind_Geraldo

Expanded context:

Sheriff Gerry Billy of Licking, Ohio, tell us, there have been at least two slayings since Cox has been arrested. So at the very least, that means there is more than one fellow out there preying on the ladies of the highway. Again, I want not stress to you that Laurie and Lisa and Linda are not prostitutes. They are not involved commercially, although they date and are enamored of truckers. **But Lisa, you had – you had some real problems with at least one trucker – beat you, and sodomized you, did he not?** Ms-LISA-CRAMPTON: Yes. RIVERA: Tell us what happened. Ms-LISA-CRAMPTON: Yes. RIVERA: What happened? Ms-LISA-CRAMPTON: I saw him for a couple months. He would come into Country Bob's and I would see him. He asked me to move to Montreal with him. So I did, and he held me for seven hours. And he liked pulling my hair and smashing my head against a cement wall. That was the big thing. And he was very big.

In all the examples, the short answer *yes* carries a positive meaning. As far as the short answers here are responses to a question, the elided part

will be the TP of the tag questions, rather than the preceding statements. Then the short answers in this context should also display a negative neutralization effect, contrary to K & R's (2009) expectation.

5. Proposal: [iNEG] at the Higher Σ

This paper tries to provide a unified account by proposing that the higher Σ in a negative clause bears an [iNEG] feature, while the lower Σ bears an [uNEG] feature, whether or not ellipsis is involved. The overt negation morpheme in the antecedent clause, whether of an outer or inner negative question, will be [uNEG], as [iNEG] resides in the higher Σ .⁸⁾ Then the question-answer pairs in (1) - (6) will be like (24) - (29) below, rather than (7) - (12):⁹⁾

8) As pointed out by one of the anonymous journal reviewers, this raises an important question: if the semantic feature resides at the higher Σ across the board, why is it that an overt negation morpheme appears at the lower Σ of a negative sentence at all in syntax? We do not have a definite answer to this question, but can speculate as follows. First of all, there are cases where an overt negation has to be treated as pleonastic. Consider the following discourse example:

- (i) A : Do you like John?
 B : No.
 B' : No, I do not like him.

If the answer in (iB') constitutes a proposition at all, either *no* or *not* has to behave as a pleonastic element. Otherwise the whole sentence should be interpreted as an affirmative sentence due to double negation. If *no* is pleonastic and *not* bears a negative feature, then the answer in (iB) cannot be interpreted as negative unless there is a covert element bearing a negative feature. One cannot, however, postulate an element bearing a negative feature at the ellipsis site (TP) in (iB) due to the semantic isomorphic condition on ellipsis. What remains as a plausible option then is the one proposed in this paper, i.e., the higher Σ bears an interpretable negative feature, while neither *no* nor *not* bears an interpretable negative feature. Rephrasing the original question, then, why does the higher Σ require a negation morpheme at all? We would like to simply say that it requires an element to signal the negative polarity of a proposition. In short, negation morphemes do not bear an interpretable negative feature on their own, but they signal the negative polarity of a proposition.

9) In fact, the difference lies in the cases where the lower Σ P in the antecedent clause involves an overt negation morpheme as in (28) and (29). All the other cases (i.e., either the external negation cases or positive cases) do not display any difference between K & R's analysis and ours: Compare (7)~(10) vs. (24)~(27).

(24) **Positive Question, Positive Answer**

A: Is [TP Alfonso <is> coming to the party]?

B: Yes. (=He is coming to the party)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} he (_{[NegP] Neg) [_{VP} is coming to the party]]]]]}

|
[E]

(25) **Positive Question, Negative Answer**

A: Is [TP Alfonso <is> coming to the party]?

B: No. (=He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} No] [_{ΣP} Σ [_{TP} he (_{[NegP] Neg) [_{VP} is coming to the party]]]]]}

| | |
[uNEG] [iNEG, E] [uNEG]

(26) **Outer Negative Question, Positive Answer**

A: Isn't [TP Alfonso <isn't> coming to the party]?

|
[uNEG]

B: Yes. (= He is coming to the party.)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} he (_{[NegP] Neg) [_{VP} is coming to the party]]]]]}

|
[E]

(27) **Outer Negative Question, Negative Answer**

A: Isn't [TP Alfonso <isn't> coming to the party]?

|
[uNEG]

B: No. (= He isn't coming to the party.)

B': [_{ΣP} [_{AdvP} No] [_{ΣP} Σ [_{TP} he (_{[NegP] Neg) [_{VP} is coming to the party]]]]]}

| | |
[uNEG] [iNEG, E] [uNEG]

(28) **Inner Negative Question, Positive Answer**

A: Is [TP Alfonso <is> not coming to the party]?

|
[uNEG]

B: Yes. (=He is coming to the party.)

B': [_{ΣP} [_{AdvP} Yes] [_{ΣP} Σ [_{TP} he (_{[NegP] Neg) [_{VP} is coming to the party]]]]]}

|
[E]

(29) **Inner Negative Question, Negative Answer**

A: Is [TP Alfonso <is> not coming to the party]?

|
[uNEG]

blatantly rules out the structure in (28), despite the fact based on the corpus data.^{10),11)}

6. Further Evidence

The core of the claim made in the previous section is that the relation between LF and PF is not isomorphic with respect to negation interpretation: The scope of negation is (or at least can be) higher than the surface position taken by a negation morpheme, as the interpretable negative feature resides in the higher Σ , not in the overt negation morpheme.¹²⁾ There seems to be further evidence for this position.

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- 10) The attachment of *yes* to a negative proposition does not cause a problem, as it is allowed even in K &R's (2009) system. The negative polarity can be signaled when the antecedent TP is copied into the elliptical site. Notice that the antecedent TP contains a negative morpheme.
- 11) One of the anonymous journal reviewers casts doubt on the validity on the proposed theory as Korean does allow negative neutralization, as exemplified in (i) below:

- (i) A: John-un ani-o-ni?
 J.-TOP NEG-come-QE
 'Is John not coming?' OR 'Isn't John coming?'
- B: eung (ani-o-e).
 yes (NEG-come-DE)
 (Lit) 'Yes (, he is not coming).'
 Intended 'No (, he is not coming).'

First of all, it is not completely clear whether the question in (A) is an inner or outer negative question, as there is no Aux-Subject inversion in Korean. Even if it is construed as an instance of inner negative question, the answer in (B) cannot be taken as an instance of negative neutralization, as the answer with *ani* 'no' bears (at least can bear) a positive reading, as shown below:

- (i) B': ani, (o-e).
 no (come-DE)
 (Lit) 'No (, he is coming).'
 Intended 'Yes (, he is coming).'

Thus, the answers *eung* and *ani* do not directly represent the polarity of the proposition involved. They should rather be understood as the responses to the questioner's expectation: *Eung* confirms the questioner's expectation, while *ani* disconfirms it. Furthermore, even if there exists a negative neutralization phenomenon in Korean, this does not cause any theoretical problem with the proposed theory, as reasoned in the main text.

First, negation can have scope over the whole sentence (or the whole proposition), even if the surface position of negation is lower than subject. Consider the following example:

- (31) a. All that glitters is not gold.
 b. John does not live in this city.

(31a) is a well-known saying, meaning that **not everything** that looks precious or true turns out to be so. A similar scope widening effect can be observed in (31b). When appropriately uttered, (31b) can be interpreted as ‘It is **not John** who lives in this city.’¹³⁾

A second piece of evidence comes from the use of the traditionally called NPI as a fragmental answer to a positive content question in a language like Korean and Japanese (See Y.-W. Kim 2001, Watanabe 2004 and D. Chung 2012, M.-K. Park 2013, S.-Y. Park 2013, among others). Consider the following examples:

- (32) (=Watanabe 2004, 564; his (13b))
 A: Nani-o mita no?
 what-ACC saw QE
 ‘Who came?’
 B: Nani-mo
 what-MO
 ‘Nothing.’

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- 12) There has been a considerable volume of literature including Carston (1996, 2002) and Moeschler (2006, 2010) that claims that negation is semantically interpreted at a higher position than its overt syntactic position. Cf. Horn (1989). See Moscati (2010, 41-50) for some discussion of scope widening cases based on the scope interactions between negation and modals. The non-isomorphic characteristic of negation scope can be found in the opposite direction: The so-called neg-raising structures illustrate that negation has scope narrower than the position taken by an overt form of negation, as pointed out by Jespersen (1917). This does not cause any problem for the system proposed in this paper, since the interpretable negative feature can be said to reside in the higher Σ of the lower clause.
- 13) If the negative force resides in the higher Σ , one might wonder why subject NPIs cannot be licensed in English negative sentences. We speculate that a subject NPI is to turn into an N-word as it is the highest N-word that agrees with the interpretable negative feature in the higher Σ . It is also worth noting that an NPI in the subject position can be licensed when it is properly embedded under the subject (R. K. Lee 1995). We suspect this is allowed because then the sentential negation morpheme and the NPI within the subject position are sort of equidistant from the interpretable negative feature at the higher Σ .

(33) (=D. Chung 2012, 542; his (2))

- A: *nwu-ka* *o-ess-ni?*
 who-NOM come-PST-QE
 'Who came?'
- B: *amwu-to*
 AMWU-TO
 'Nobody.'

The question-answer pairs in (32) and (33) appear to violate the semantic isomorphic condition on ellipsis due to the polarity disparity: The antecedent clause is affirmative, while the ellipsis clause is negative. For example, (33) will have the structure in (33)' below:

(33)' (=D. Chung 2012, 543; his (2)')

- A: *nwu-ka* *o-ess-ni?*
 who-NOM come-PST-QE
 'Who came?'
- B: *amwu-to* {~~*o-ci*~~—*ani-ha-ess-ta*}
amwu-to *come-ci* NEG-do-PST-DE
 'Nobody did.'

To solve this polarity mismatch, Watanabe (2004) claims that the traditionally called NPIs are in fact negative quantifiers (N-words in his term that bear a negative feature).¹⁴⁾ The negative quantifier analysis of NPIs itself does not, however, satisfy the semantic isomorphic condition on ellipsis, as there still exists disparity in polarity between the antecedent clause and the elided TP. So Watanabe (2004) assumes that the negative feature in the N-word agrees with the negation morpheme and the negative feature of the former is copied into the latter such that the negative head now bears two negative features. At the final stage, the two negative features on the negation head cancel each other due to double negation, satisfying the semantic isomorphic condition on ellipsis, as schematically represented below:

14) Y.-W. Kim (2001) claims in a similar vein that the traditionally called NPI *amwu* N-*to* in Korean bears a negative feature due to the morpheme *-to*.

(33)" (=D. Chung 2012, 544; his (2)')

A: *nwu-ka o-ess-ni?*

<p>B: <i>acik-kkaci-nun amwu-to [ani-o-ess-ta].</i></p>	<p>[AFF]</p> <p>[NEG] [NEG]</p> <p>[NEG] [NEG][NEG] ([NEG] copy due to Agree)</p> <p>[NEG] [NEG][NEG] (Feature cancellation due to double negation)</p> <p>[NEG] [AFF] (SIC satisfied)</p>
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Regardless of whether the traditionally called NPI bears a negative force or not, the feature copy operation due to Agree seems to be theoretically very suspicious. Notice that this operation undesirably changes the feature matrix of a given lexical item in the course of derivation, violating the NTC (No Tampering Condition, Chomsky 2007, 2008).¹⁵⁾

The theory proposed in this paper can easily deal with the availability of *amwu N-to* as a fragmental answer to a positive content question in Korean, even without making a somewhat questionable assumption that *amwu N-to* is a negative quantifier and without resort to the dubious feature copy mechanism. The fragmental answer with *amwu N-to* will have an [iNEG] in the higher Σ , and an [uNEG] in the lower Σ embedded under the elided TP:

(34) A: *nwu-ka o-ess-ni?*

[AFF]

B: [Σ_P [X_P *amwu-to*]_i [Σ_P Σ [$TP-C_T$ [NEG_P *ani-o-ess-ta*]]]]:

[uNEG]	[iNEG, E]	[uNEG]

Now the elided TP does not bear an interpretable negative feature, satisfying the semantic isomorphic condition on ellipsis.¹⁶⁾

15) See D. Chung (2012) for some additional problems with Watanabe's (2004) system.

16) One might be curious why *any* NPIs in English cannot function as short answers to a content question. They do not seem to be strong enough to agree with the interpretable negative feature, unlike Korean *amwu N-to* NPIs/NCIs, which are required to occur in an anti-morphic condition like negation. (See S. Nam 1994 and D. Chung 1997 for some discussion on the strength of NPIs.) It is also worth not-

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