



T-to-C movement and (Un)Ambiguity of Uncontracted Negative Interrogatives*

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ABSTRACT

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There are two types of negative interrogatives: contracted negative interrogatives and uncontracted negative interrogatives. There is a consensus that the former type permits a sentential negation reading only. However, there is speaker variation about the latter type. Some speakers permit both a sentential negation reading and a constituent negation reading, whereas some others reject the possibility that it can give a sentential negation reading. Sentential negation and constituent negation are usually in complementary distribution: that is, it is hard to find a construction in which the negative word *not* can be used as either sentential negation or constituent negation. However, this paper claims that (i) T-movement can give rise to structural ambiguity between a sentential negation reading and a constituent negation reading, (ii) the uncontracted negative interrogative is a case in point, and (iii) the speaker variation about the uncontracted negative interrogative follows from a Gricean Maxim—the Maxim of Manner.

KEYWORDS

T-to-C movement, contracted negative interrogatives, uncontracted negative interrogatives, sentential negation, constituent negation

1 Introduction

There are two types of negative interrogatives: contracted negative interrogatives and uncontracted negative interrogatives, as illustrated by (1a-b).

- (1) a. Didn't you open the window? (Contracted Negative Interrogative)
 b. Did you not open the window? (Uncontracted Negative Interrogative)

There is a consensus that (1a) is a typical example of sentential negation, being only interpreted as (2a). By contrast, there is speaker variation about the interpretation of (1b).¹ According to the intuition of many speakers, it is only interpreted as (2b), in which the constituent vP is negated (Bresnan 2001, Frampton 2001, Potsdam 1995). On the other hand, many others find it ambiguous between a sentential negation reading and a constituent negation reading: that is, it is ambiguous between (2a) and (2b) (Flagg 2004).

- (2) a. 'Is it not the case that you open the window?' (Sentential Negation)
 b. 'Did you leave the window closed?' (Constituent Negation)

It is tempting to say that there are two different grammars with respect to (1b): that is, Grammar A takes it to be a structurally unambiguous sentence, whereas Grammar B considers (1b) to be structurally ambiguous between a sentential negation reading and a constituent negation reading. As pointed out by Flagg (2004), however, this line of approach is problematic if we consider the Right Node Raising (RNR) Construction in (3). Flagg observes that (3a) can be construed as (3b), even for speakers who deny the possibility that (1b) can give a sentential negation reading.

- (3) a. Did you or did you not open the window?
 b. Did you or didn't you open the window?

This suggests that the uncontracted negative interrogative is structurally ambiguous, even for speakers who reject the sentential negation reading in (1b).

Given that the uncontracted negative interrogative is structurally ambiguous, it is quite puzzling that there is speaker variation about (1b). Another puzzling phenomenon is that (4a), unlike (4b), does not permit the 'not>every' reading, even for speakers who permit the sentential negation reading in (1b).

- (4) a. Is everyone not happy?
 b. Isn't everyone happy?

¹ On the other hand, there is no speaker variation with respect to the scope interaction between negation and *everyone* in (ia-b).

- (i) a. Didn't everyone arrive? (n't>every, *every>n't)
 b. Did everyone not arrive? (every>not, *not>every)

In (ia) *n't* must negate *everyone*, whereas in (ib) *not* must not negate *everyone*.

As shown in (5), *not* can have scope over the quantified subject *everyone* if it is a sentential negator.

- (5) Everyone is not happy. (not>every, every>not)

Provided that (4a) can be an instance of sentential negation, it is surprising that *not* fails to have scope over *everyone*. This paper attempts to provide a principled account for various puzzles revolving around uncontracted negative interrogatives.

2 T of Negative Sentences as an NPI and T of Positive Sentences as a PPI

The uncontracted negative interrogative (1b), repeated here as (6), can be represented as either (7a) or (7b), depending on whether *not* is a sentential negator or a constituent negator.

- (6) Did you not open the window?
 (7) a. [CP T C [TP you $\bar{\text{T}}$ [_{NegP} not [_{vP} you open the window]]]]
 b. [CP T C [TP you $\bar{\text{T}}$ [_{vP} not [_{vP} you open the window]]]]²

This section investigates whether both (7a) and (7b) are well-formed representations. The major claim made in this section is that (i) sentential negation and constituent negation are subject to the opposite condition, (ii) hence they are usually in complementary distribution, (iii) but T-movement creates a configuration in which both sentential negation and constituent negation are allowed, so that both (7a) and (7b) are well-formed.

2.1 The C-Command Condition on Negative Sentences

Sentences (8a-c) show that the head of a negative sentence is adjacent to a Negative Phrase.

- (8) a. Not a word did he say.
 b. *Not a word he said.
 c. *He said not a word.

With a view to capturing this phenomenon, Haegeman and Zanuttini (1991), Rizzi (1996), and Haegeman (2000a, 2000b) propose the Neg-Criterion as follows: (i) each Neg- X^0 must be in a SPEC-head relation with a Neg-operator, and (ii) each Neg-operator must be in a SPEC-head relation with Neg- X^0 . The Neg-Criterion can be formalized within the framework of minimalism if we make use of an uninterpretable feature. Chomsky (2000 and subsequent work) proposes that uninterpretable features must be deleted in the course of a derivation. I propose that the head of a negative TP has an uninterpretable feature—[uNeg], and it must be deleted via Agree.

² As a reviewer points out, it is also possible to represent (6) as follows:

(i) [CP T C [TP you $\bar{\text{T}}$ [_{vP} you v [_{vP} not [_{vP} open the window]]]]]

This representation gives rise to constituent negation only.

(9) Condition on Sentential Negation

The [uNeg] feature of T must be deleted, and it can be deleted if it establishes an Agree relation with a Negative Phrase within the same phase.

Since Chomsky (2000), there have been heated arguments about the directionality of Agree. Following Zeijlstra (2012), Bjorkman and Zeijlstra (2019), I assume that Agree is upward, which means that the uninterpretable feature [uNeg] is deleted when it is c-commanded by a Negative Phrase, as proposed in Kim (2022). Thus, (9) can be paraphrased as follows:

(10) The C-Command Condition on Negative Sentences

$T_{[uNeg]}$ must be c-commanded by a Negative Phrase within the same phase.

If α is a Negative Polarity Item (NPI), α must be c-commanded by a negative operator. Accordingly, the C-Command Condition in Negative Sentences amounts to saying that $T_{[uNeg]}$ is an NPI. Let us first consider (11), which is a typical negative sentence. Sentence (11) can be represented as (12), in which the [uNeg] feature of T can be deleted because $T_{[uNeg]}$ is c-commanded by the Negative Phrase *not open the window*.

(11) You did not open the window.

(12) [you $T_{[uNeg]}$ [$NegP$ not [$_{VP}$ ~~you~~ open the window]]]

Let us now turn to (8a), where subject-aux inversion takes place. In (13a) the [uNeg] feature of T cannot be deleted in situ. If an uninterpretable feature cannot be deleted in situ, it triggers movement (Bošković 2007, 2011; Zeijlstra 2012; Bjorkman and Zeijlstra 2019, Kim 2022). Hence, $T_{[uNeg]}$ undergoes movement to Focus. If *not a word* undergoes movement to SPEC-Focus, the [uNeg] feature of T can be deleted, as it can be c-commanded by the raised Negative Phrase.

(13) a. [Focus [$_{TP}$ he $T_{[uNeg]}$ [$_{VP}$ say not a word]]]: T-to-Focus Movement

b. [[$T_{[uNeg]}$ Focus] [$_{TP}$ he $\bar{T}_{[uNeg]}$ [$_{VP}$ say not a word]]]: Negative Preposing

c. [FocusP not a word_i [$T_{[uNeg]}$ Focus] [$_{TP}$ he $\bar{T}_{[uNeg]}$ [$_{VP}$ say t_i]]]: Deletion of [uNeg]

d. [FocusP not a word_i [$T_{[uNeg]}$ Focus] [$_{TP}$ he $\bar{T}_{[uNeg]}$ [$_{VP}$ say t_i]]]

The gist of the claim is that $T_{[uNeg]}$ is an NPI, so that (i) it can be licensed when it is c-commanded by a Negative Phrase within the same phase, and (ii) if it cannot be licensed in situ, it undergoes movement.

Let us finally investigate whether (6) satisfies the C-Command Condition. If $T_{[uNeg]}$ is merged with the phrase headed by *not*, as in (14a-b), $T_{[uNeg]}$ is c-commanded by the Negative Phrase within the same phase: that is, the [uNeg] feature of T can be deleted because it can establish an Agree relation with the NP.

(14) a. [$_{NegP}$ not [$_{VP}$ you open the window]]: Merge of $T_{[uNeg]}$ and Deletion of [uNeg]

b. [$T_{[uNeg]}$ [$_{NegP}$ not [$_{VP}$ you open the window]]]: Subject Raising and Merge of C

c. [C [you $T_{[uNeg]}$ [$_{NegP}$ not [$_{VP}$ ~~you~~ open the window]]]]]: T-to-C Movement

d. [$T_{[uNeg]}$ C [you $\bar{T}_{[uNeg]}$ [$_{NegP}$ not [$_{VP}$ ~~you~~ open the window]]]]]

Therefore, a well-formed representation can be generated when *not* is the head of a NegP, although T undergoes further movement to C. This amounts to saying that (6) can be regarded as an instance of sentential negation.

2.2 The Anti-C-Command Condition on Positive Sentences

The question is now whether it is also possible to derive a well-formed representation while assuming that *not* is an adjunct in (6). If *not* is adjoined to vP, (15c) is generated.

- (15) a. [T [_{vP} not [_{vP} you open the window]]]: Subject Raising, Merge of C
 b. [_{CP} C [_{TP} you T [_{vP} not [_{vP} ~~you~~ open the window]]]]: T-to-C Movement
 c. [_{CP} T C [_{TP} you $\bar{\Phi}$ [_{vP} not [_{vP} ~~you~~ open the window]]]]

Before discussing whether (15c) is a well-formed representation, let us examine whether *not* can be adjoined to vP when T does not undergo movement. Let us say that *not* can be adjoined to vP, as in (16a). If so, there is no reason that T cannot lower onto *open* in (16a).

- (16) a. [you T [_{vP} not [_{vP} ~~you~~ open the window]]]: *T-to-*open* Lowering
 b. *[you $\bar{\Phi}$ [_{vP} not [_{vP} ~~you~~ [T open] the window]]]

However, (17) is ungrammatical.

- (17) *you not opened the window.

This suggests that *not* cannot be adjoined to vP if T does not undergo dislocation.

The important difference between (15a) and (16a) lies in the fact that in (15a), but not in (16a), T moves to C, so that it comes to be outside the c-domain of the Negative Phrase.

- (18) [T C [you $\bar{\Phi}$ [_{vP} not [_{vP} ~~you~~ open the window]]]]

We have seen that T of negative sentences is an NPI in the sense that it must be c-commanded by a Negative Phrase within the same phase. I propose that T of positive sentences is subject to the opposite condition—the Anti-C-Command Condition. The head of a positive sentence is a Positive Polarity Item (PPI), so that it has the feature [+Pos(itive)] and must not be c-commanded by a Negative Phrase within the same phase.

(19) Anti-C-Command Condition on Positive Sentences

T_[+Positive] must not be c-commanded by a Negative Phrase within the same phase.

In (16a), repeated here as (20), T_[+Pos] is c-commanded by the negative word *not*, because the first branching node dominating *not* is T'.³

³ I assume the following definition of ‘c-command’ and ‘domination’:

- (i) X c-commands Y iff the first branching node dominating X dominates Y, and X does not dominate Y, nor Y, X.
 (ii) X is dominated by Y iff every segment of Y dominates X (May 1985, Chomsky 1986).

(20) [you [_T T_[+Pos] [_{vP} not [_{vP} ~~you~~ open the window]]]]

This is a violation of the Anti-C-Command Condition. However, in (18), rewritten as (21b), T-to-C movement creates a structural configuration in which the Anti-C-Command Condition is satisfied. In (21b) the higher copy of T_[+Pos] is not c-commanded by *not*.⁴ Therefore, (21b) is well-formed.

(21) a. [C [you T_[+Pos] [_{vP} not [_{vP} ~~you~~ open the window]]]]: T-to-C Movement
 b. [T_[+Pos] C [you T_[+Pos] [_{vP} not [_{vP} ~~you~~ open the window]]]]

The major claim made in this section is that the uncontracted negative interrogative can satisfy both the C-Command Condition on Negative Sentences and the Anti-C-Command Condition on Positive Sentences, and hence it is structurally ambiguous between a sentential negation reading and a constituent negation reading.

2.3 Head Movement and the Anti-C-Command Condition

Before getting into the main issues raised at the outset of this paper, let us digress into Embick and Noyer's (2001) puzzle. Embick and Noyer argue that the representation (23) must be well-formed because (22) is grammatical.

(22) John can always not agree.
 (23) T always not agree

Surprisingly, (23) cannot produce a grammatical sentence. Neither (24a) nor (24b) is grammatical.

(24) a. *John always not agrees.
 b. *John does always not agree.

This phenomenon leads Embick and Noyer to propose that *do*-insertion does not take place as a last resort. Their argument goes as follows: (i) the ungrammaticality of (24a) suggests that T cannot lower onto *agree* in (23), (ii) if *do* is inserted as a last resort, it is predicted that (24b) is grammatical, (iii) but it is ungrammatical, and therefore, *do*-insertion is not a last resort operation.

However, we can account for the ungrammaticality of (24a-b) while maintaining the last resort approach to *do*-insertion. I propose that the assumption that (23) is well-formed is incorrect. Let us first suppose that *not* is the head of a NegP. Then, (23) is represented as (25). The representation (25) is ill-formed, because *always* cannot modify a NegP. It can modify an event-denoting phrase, but the NegP cannot denote an event. So (25) gives rise to an ill-formed logical form.

(25) *[T_[uNeg] [_{NegP} always [_{NegP} not_[uT] [_{vP} agree]]]]

Let us now suppose that *not* is adjoined to vP, as in (26). The vP [_{vP} *agree*] denotes an agreeing event, and when

⁴ It is controversial about whether head movement takes place at PF or in the narrow syntax (Chomsky 2001, 2013). I assume that it takes place in the narrow syntax.

it is adjoined by *not*, the resulting vP [_{vP} *not* [_{vP} *agree*]]] denotes another event—a disagreeing event. Thus, there is no semantic problem. However, the problem is that (26) runs afoul of the Anti-C-Command Condition on Positive Sentences. In (26) T' is the first branching node dominating *not*, so that T_[+Pos] is c-commanded by the negative word, which is a violation of the Anti-C-Command Condition.

(26) *_{[T' T_[+Pos] [_{vP} always [_{vP} not [_{vP} agree]]]]]}

In short, the representation (23) fails to yield a grammatical sentence, as (25) leads to an ill-formed logical form, whereas (26) violates the Anti-C-Command Condition.

The question is now why (22) is grammatical. Many linguists (Roberts 1998, Mathshansky 2006, Iatridou and Zeijlstra 2013, among others) claim that modals undergo head movement. According to the movement theory of modals, (22) is not represented as (27b) but as (27a), in which *can* is base-generated below T and moves to T.

(27) a. _{[TP John T_[+Pos] [_{VP} can [_{vP} always [_{vP} not [_{vP} agree]]]]]]]}
 b. * _{[TP John can_[+Pos] [_{vP} always [_{vP} not [_{vP} agree]]]]]}

In (27a) the Anti-C-Command Condition is satisfied because T_[+Pos] is not c-commanded by *not*. Therefore, (22) is grammatical.

3 Towards an Account

We have seen that (28) is structurally ambiguous. *Not* can be adjoined to vP, or it can take vP as a complement. However, (29) is not ambiguous, being only interpreted as a sentential negation reading.

(28) did you not [shut the window]?
 (29) Did you or did you not [shut the window]?

Sentence (29) is a Right Node Raising Construction, in which the vP *shut the window* is shared by both conjuncts. There must be a contrast between the two conjuncts, and *not* must be involved in making a contrast. If (29) is represented as (30), *not* gives rise to a sentential negation reading, so that there is a contrast between the two conjuncts: the first conjunct is construed as 'is it the case that you ...', whereas the second conjunct is construed as 'is it not the case that you ...'.

(30) Did you <shut the window> or did you [_{NegP} not [_{vP} shut the window]]?

This is a coherent reading. If, however, *not* is adjoined to vP, as in (31), it is not able to negate *did you*, and hence it is not possible to obtain a coherent reading.

(31) Did you <shut the window> or did you [_{vP} not [_{vP} shut the window]]?

In short, the second conjunct of (29) can be structurally ambiguous, but it is disambiguated when it is coordinated

with the elliptical constituent *did you*.⁵

There are now two remaining questions. The first question is why there are two different intuitions with respect to the interpretation of (28): it can be ambiguous between sentential negation and constituent negation for many speakers, whereas it is not for many others. The second question is why (32) permits only the ‘every>not’ reading, even for speakers who agree that (28) allows a sentential negation reading.

(32) Is every student not happy?

The remainder of this section is devoted to resolving these problems.

3.1 The Maxim of Manner and Speaker Variation

Sentence (28) can be explained if we utilize a Gricean implicature. It is syntactically possible to utter either (28) or (33) when the speaker intends sentential negation.

(33) didn’t you shut the window?

However, the Maxim of Manner or Clarity, which requires ‘Avoid Ambiguity’ (Grice 1975), favors (33) over (28). It is because (33), unlike (28), is unambiguous. If the speaker violates the Gricean maxim by choosing to utter the ambiguous sentence (28), the hearer reaches the conclusion that the speaker intended a constituent negation reading, after going through the following steps.

- (34)
- a. Sentence (33) is clearer than (28), as the former is unambiguous whereas the latter is ambiguous.
 - b. The utterer chose to use (28) when she could have used the clearer sentence (33).
 - c. If so, she must have avoided the clearer statement because it is inappropriate.
 - d. Therefore, the use of (28) implicates that she intended constituent negation.

What is noteworthy is that it is not the case that all the people follow the maxims of conversation: that is, conversational implicature is subject to speaker variation, as Grice (1975) admits. Hence, there is speaker variation concerning the interpretation of (28).

3.2 The Principle of Economy and Disambiguation

Let us now consider why (32) does not yield the ‘not>every’ reading. Sentence (35) is ambiguous between the ‘not>every’ reading and the ‘every>not’ reading.

(35) Everyone didn’t arrive yet. (not>every, every>not)

⁵ Previous approaches to RNR can be classified into three groups: the ATB-movement approach (Sabbagh 2007, 2008, among many others), the multi-dominance approach (Wilder 1999, Grosz 2015, among others), and the ellipsis approach (Abels 2004, Ha 2008 among others). In addition, some linguists (Barros and Vicente 2011, Sabbagh 2014, among others) suggest that there can be two different sources for RNR constructions. It is beyond the scope of this paper to provide a detailed analysis of (33). Suffice it to say that *not* must not be adjoined to the shared constituent *shut the window*.

This suggests that the ‘not>quantified subject’ reading obtains when the quantified subject is c-commanded by *not* at LF. There are two possible approaches to the scope ambiguity of (35). First, the inverse scope results when the lower copy of *everyone* is interpreted at LF, and second, it results from QR.

- (36) a. [everyone didn’t [everyone arrive]]: Deletion of the Higher Copy at LF
 b. [~~everyone~~ didn’t [everyone arrive]]
 (37) a. everyone didn’t arrive: QR at LF
 b. [not [everyone arrived]]

We can rule out the reconstruction approach on the ground that in (38a) *everyone* cannot undergo reconstruction, but it can be inside the scope of negation. If *everyone* is to be interpreted as an antecedent for *his*, the higher copy must be interpreted, as shown in (38b).

- (38) a. Everyone_i doesn’t seem to his_i mother to be a genius.
 b. [everyone_i doesn’t seem to his_i mother [~~everyone_i~~ to be a genius]]

Accordingly, it is predicted under the reconstruction approach that *not* fails to have scope over *everyone*. Contrary to the prediction, however, the ‘not>every’ reading is available from (38a). There are many other examples that run counter to the reconstruction approach. For instance, (39) does not allow the ‘not>every’ reading although *everyone* starts from the embedded clause (Chomsky 1995, Lasnik 1999).

- (39) Everyone seems not to be sick.

Sentences (38-39) can be handled under the QR-based approach although they pose a problem to the reconstruction approach. In (38) *not* can take scope over *everyone* when it undergoes QR. So it is not surprising that (38) is ambiguous.

- (40) a. [TP everyone_i doesn’t seem to his_i mother to be a genius]: QR
 b. [TP not [TP everyone_i doesn’t seem to his_i mother to be a genius]]

The unambiguity of (39) follows if Neg-Raising at LF obeys the clause-boundedness condition. It is well-known that QR is subject to the clause-boundedness condition (Farkas 1981, Fodor and Sag 1982, Abusch 1994, Beghelli 1995, Fox 2000, Farkas and Giannakidou 1996, Szabolcsi 1997, Johnson 2000, Cecchetto 2004, Wurmbrand 2018, among others). I propose that LF movement of sentential negators, just like that of other types of quantifiers like *everyone*, conform to the clause-boundedness condition. More precisely, if *not* establishes an Agree relation with T_[uNeg], it can undergo QR up to the maximal projection of T_[uNeg]. In (39) *not* cannot undergo QR because it is already at the edge of the projection of T_[uNeg].

- (41) everyone seems [_{NegP} not_[uT] [TP to_[uNeg] be sick]]

If the clause-boundedness condition is correct, it is predicted that if a quantifier occurs within the maximal projection of T_[uNeg], it can be inside the scope of negation, and if not, it is not. This prediction is borne out. In (42a-c) negation can take scope over *everyone*.

- (42) a. I expected everyone not to be there yet. (Lasnik 1999: 194)
 b. John would prefer for everyone not to leave. (Lasnik 1999: 194)
 c. John wanted very much for everyone not to leave. (Lasnik 1999: 194)

Lasnik (1999) argues that object shift is optional, so *everyone* can stay within the maximal projection of *to* in (42a).⁶ Hence, (42a) permits the wide scope reading for negation. In (42b-c) as well as (42a), *everyone* is within the projection of *to*, and so the ‘negation>every’ reading is available. Sentences (43a-b) lend further support to the clause-boundedness condition. In (43a) *every even number* raises to the matrix clause, whereas in (43b) it does not. As predicted, negation can have scope over *every* in (43b), but not in (43a).

- (43) a. The mathematician made every even number out not to be the sum of two primes.
 b. The mathematician made out every even number not to be the sum of two primes.
 (Lasnik 1999: 201)

These considerations lead to the conclusion that the scope ambiguity of (35) arises from optional QR.

While assuming that the inverse scope results from QR, let us consider why (32), repeated here as (44), is not ambiguous.

- (44) Is every student not happy?

It is theoretically possible to get a ‘not>every’ reading from (44) if QR takes place. On the other hand, (46) gives only the wide scope reading of negation (Potsdam 1995).

- (45) a. [is [every student not happy]]: QR
 b. [is [not [every student ~~not~~ happy]]]
 (46) Isn’t every student happy?

Thus, it is possible to utter either (44) or (46) when the speaker intends the ‘not>every’ reading. However, the Maxim of Manner prefers (46) over (44), as it requires that ambiguity be avoided. In addition, there is another principle that requires the speaker to utter (46), when she intends the wide scope reading of negation. The Principle of Economy favors the simpler derivation over the more complex derivation. If the speaker intends the wide scope reading of negation, (46) is simpler than (44) in that it does not involve QR. QR is a last resort operation to create an inverse scope reading, and it can be avoided if (46) is uttered. Therefore, the Principle of Economy favors (46) over (44) if (i) the speaker intends the ‘not>every’ reading and (ii) she is aware that a contracted negative interrogative can be an alternative to an uncontracted negative interrogative. In short, if the speaker intended the ‘not>every’ reading and chose to utter (44), she violates two conditions: the Maxim of Manner and the Principle of Economy. Therefore, the hearer reaches the conclusion that the speaker did not intend the wide scope reading of the negation.

⁶ Lasnik (1999) suggests that object shift is optional, but it is obligatory with pronouns.

4 Conclusion

Sentential negation and constituent negation are usually in complementary distribution. For instance, if *not* is adjacent to T, it must be taken to be sentential negation.

- (47) a. John did not agree.
b. *John not agreed.

This paper has captured the complementary distribution of sentential negation and constituent negation as follows:

- (48) a. T_[uNeg] is an NPI, so that it must be c-commanded by a Negative Phrase within the same phase.
b. T_[+Pos] is a PPI, so that it must not be c-commanded by a Negative Phrase within the same phase.

There appears to be no syntactic structure that satisfies both (48a) and (48b). However, this paper has shown that T-movement can create a structure in which both (48a) and (48b) are satisfied. If T-movement takes place, two copies of T are generated, and it is possible that the lower copy of T is c-commanded by *not*, whereas the higher copy of T is not. Sentence (49), for instance, can be structurally ambiguous, being analyzed as either (50a) or (50b).

- (49) Did you not agree?
(50) a. [T_[+Neg] C [you T_[+Neg] [NegP not [_{VP} you agree]]]]
b. [T_[+Pos] C [you T_[+Pos] [_{VP} not [_{VP} you agree]]]]

Both (50a) and (50b) are well-formed. Put differently, (49) is structurally ambiguous. However, it can be disambiguated by a Gricean Maxim—the Maxim of Manner. When generating an interrogative negative sentence, there are two options: either use the uncontracted form *not*, or use the contracted form *n't*. The contracted negative interrogative is clearer than the uncontracted negative interrogative in that it is not ambiguous, yielding only a sentential negation reading. If the speaker chose to use the uncontracted negative interrogative, she must have avoided the clearer sentence because it is inappropriate. Therefore, the hearer reaches the conclusion that the speaker did not intend a sentential negation reading. Speaker variation arises because not every speaker/hearer observes the Maxim of Manner. This study has also shown that the Principle of Economy disambiguates uncontracted interrogative negatives with quantified subjects. To conclude, uncontracted negative interrogatives are structurally ambiguous, but they can be disambiguated because there are alternatives—contracted negative interrogatives.

References

- Abels, Klaus. 2004. Right node raising: Ellipsis or ATB movement? In Keir Moulton and Matthew Wolf, eds., *NELS* 34, 45–60. Amherst: University of Massachusetts, Graduate Linguistic Student Association.
- Abusch, Dorit. 1994. The scope of indefinites. *Natural Language Semantics* 2, 83–136.
- Beghelli, Filippo. 1995. *The Phrase Structure of Quantifier Scopepe*. Dissertation, University of California, Los Angeles.
- Bresnan, Joan. 2001. Explaining morphosyntactic competition. In M. Baltin and C. Collins, eds., *Handbook of*

- Contemporary Syntactic Theory*, 11–44. Malden, MA: Blackwell Publishers.
- Bošković, Željco. 2007. On the locality and motivation of Move and Agree: An even more minimal theory. *Linguistic Inquiry* 38, 589–644.
- Bošković, Željco. 2011. Last resort with Move and Agree in derivations and representations. In C. Boeckx, ed., *The Oxford Handbook of Linguistic Minimalism*, 327–353. Oxford: Oxford University Press.
- Bjorkman, Bronwyn and Hedde Zeijlstra. 2019. Checking up on ϕ -Agree. *Linguistic Inquiry* 50, 527–569.
- Cecchetto, Carlo. 2004. Explaining the locality conditions of QR: Consequences for the theory of phases. *Natural Language Semantics* 12(4), 345–397.
- Chomsky, Noam. 1986. *Barriers*. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In Roger Martin, David Michaels and Juan Uriagereka, eds., *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, 89–155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In Michael Kenstowicz, ed., *Ken Hale: A Life in Language*, 1–52. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2013. Problems of projection. *Lingua* 130, 33–49.
- Embick, David and Rolf Noyer. 2001. Movement operations after syntax. *Linguistic Inquiry* 32, 555–595.
- Farkas, Donka. 1981. Quantifier scope and syntactic islands. In Roberta A. Hendrick, Carrie S. Masek and Mary Frances Miller, eds., *Papers from the 17th Regional Meeting of the Chicago Linguistic Society*, 59–66. Chicago, IL: University of Chicago, Chicago Linguistic Society.
- Farkas, Donka F. and Anastasia Giannakidou. 1996. How clause-bounded is the scope of universals? In Teresa Galloway and Justin Spence, eds., *Proceedings from Semantic and Linguistic Theory VI*: 35–52. Ithaca, NY: Cornell University, CLC Publications.
- Fox, Danny. 2000. *Economy and Semantic Interpretation*. Cambridge, MA: MIT Press.
- Frampton, John. 2001. The amn't gap, ineffability, and anomalous aren't: Against morphosyntactic competition. In M. Andronis, C. Ball, H. Elston and S. Neuvel, eds., *Papers from the 37th Meeting of the Chicago Linguistic Society*. Vol. 1: 399–412. Chicago: Chicago Linguistic Society.
- Grice, Paul. 1975. Logic and conversation. In P. Cole and J. Morgan, eds., *Syntax and Semantics* 3, 41–58. New York: Academic Press.
- Grosz, Patrick Georg. 2015. Movement and agreement in right-node-raising constructions. *Syntax* 18, 1–38.
- Ha, Seungwan. 2008. *Ellipsis, Right Node Raising, and Across-the-board Constructions*. Boston, MA: Boston University dissertation.
- Haegeman, Liliane. 1995. *The Syntax of Negation*. Cambridge: Cambridge University Press.
- Haegeman, Liliane. 2000a. Inversion, non-adjacent-inversion, and adjuncts in CP. *Transactions of the Philological Society* 98, 121–160.
- Haegeman, Liliane. 2000b. Negative preposing, negative inversion, and the split CP. In L. Horn and Y. Kato, eds., *Negation and Polarity*, 21–61. Oxford: Oxford University Press.
- Haegeman, Liliane and Raffaella Zanuttini. 1991. Negative heads and neg criterion. *The Linguistic Review* 8, 233–251.
- Iatridou, Sabine and Hedde Zeijlstra. 2013. Negation, polarity, and deontic modals. *Linguistic Inquiry* 44, 529–568.
- Kim, Kwang-sup. 2022. On T-movement. *Lingua* 274.
- May, Robert. 1985. *Logical Form*. Cambridge, MA: MIT Press.
- Matushansky, Ora. 2006. Head movement in linguistic theory. *Linguistic Inquiry* 37, 69–109.

- Potsdam, Eric. 1998. *Syntactic Issues in the English Imperative*. New York: Garland Publishing.
- Rizzi, Luigi. 1996. Residual verb second and the *wh*-criterion. In A. Belletti and L. Rizzi, eds., *Parameters and Functional Heads*, 63–90. Oxford: Oxford University Press.
- Roberts, Ian. 1998. *Have/Be Raising: Move F and procrastinate*. *Linguistic Inquiry* 29, 113–125.
- Sabbagh, Joseph. 2007. Ordering and linearizing rightward movement. *Natural Language and Linguistic Theory* 25, 349–401.
- Sabbagh, Joseph. 2008. Right node raising and extraction in Tagalog. *Linguistic Inquiry* 39, 501–511.
- Wilder, Chris. 1999. Right node raising and the LCA. In Sonya Bird, Andrew Carnie, Jason D. Haugen and Peter Norquest, eds., *Proceedings of the 18th West Coast Conference in Formal Linguistics*, 586–598. Somerville, MA: Cascadilla Press.
- Wurmbrand, Susi. 2018. The cost of raising quantifiers. *Glossa: A Journal of General Linguistics* 3(1), 19.
- Zeijlstra, Hedde. 2012. There is only one way to agree. *The Linguistic Review* 29, 491–539.

Examples in: English

Applicable Languages: English

Applicable level: Tertiary