Re-examination of Neg-Raising
— Syntactic Evidences and their Problems —

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Abstract
The pair of Neg-Raised and non-Neg-Raised sentences have generally been analyzed as derivationally related by an optional rule, i.e. Neg-Raising, and therefore considered to be paraphrases.

In this paper, we will re-examine some different types of syntactic evidences concerning the rule of Neg-Raising and their problems.

Keywords: Neg-Raising, syntactic evidence, complement clause

0. Introduction

A rule of Neg-Raising, or Neg-Transportation was first proposed in Fillmore (1963) in order to account for the difference between the sentence pair (1a), (1b) and the pair (1c), (1d).

(1) a. I claim John hasn’t come.
    b. I don’t claim John has come.
    c. I think John hasn’t come.
    d. I don’t think John has come.

The difference is as follows: for the pair (1a) and (1b) it is only possible for one to be true and for the other to be false in a given situation. On the contrary, (1c) and (1d) sentences are similar in the meaning, that is, there cannot be
a situation in which (1c) is true and (1d) is false, or vice versa. The sentence (1d), it is claimed, is ambiguous. It has an ordinary negative meaning "It is not so that I think John has come." At the same time, it has another meaning — that of (1c). In this second case, (1d) is considered to have undergone the rule of Neg-Raising. The deep structure of one of the (1d) readings is the deep structure of (1c) and the not is raised from the complement clause to the main clause. Most of the transformational grammarians have been accustomed to assuming that the sentences related by Neg-Raising are perfect paraphrases and can be transformationally linked. This paper is intended as a re-examination of several syntactic evidences for Neg-Raising, especially in 70's and their problems.

1. Negative Polarity Items

1.1. A number of English items like any, at all, ever, until are considered as negative polarity items (i.e. as items that presuppose some negative expressions in the sentence). Sometimes the negative is not found in the same clause that has the negative polarity item, but in the superordinate clause. This means that the scope of the negative in the main clause may extend to the complement clause (e.g., I don't think it's nice at all). Moreover, these items can occur in sentences without an overt negative if certain conditions are met: if the sentence is interrogative, conditional or comparative, or if the sentence contains one of the specific class of items, such as odd, sorry, surprised, difficult, disappointed, and so on. Baker (1970) points out that predicates of this class involve counterexpectation; that is, it is the entailment of the overt negative in (2b) that renders the negative polarity item in (2a) acceptable:

(2) a. I'm surprised that she said anything.
b. I didn’t expect that she would say anything.

Hence, even where the main verb in (2a) is negated (as in *I’m not surprised*), it is not the case that the presence of the negative polarity item in the complement clause is affected by its negativity.

1.2. The use of *until* in a sentence with a non-durative main verb is permitted only when the main clause is negative, thus providing stronger evidence that the neg in the main clause apparently comes from the embedded complement.

(3) a. I didn’t think Max would arrive until Friday.

b. I thought Max wouldn’t arrive until Friday.

c. *I didn’t assert Max would arrive until Friday.*

The neg is obligatory in (3a) to fulfill the condition on the use of *until*, so it must have been at first in the complement clause (as in 3b) and then raised by Neg-Raising, a rule applying to such predicates as *think, believe* and *suppose*, but not to *claim, assert* or *realize*. Therefore, (3a) is synonymous to (3b), which derives more directly from the same deep structure. The sentence (3c), on the other hand, is ungrammatical, since the main clause negation (i.e. *didn’t assert*) does not account for using *until* in the complement clause (although there is another possible and less plausible reading that *until* modifies the act of assertion rather than the arrival).

Lindholm (1969: 153-154) cites the following sentences in which he finds *until* and *lift a finger* — both of them are extremely restrictive negative polarity items — are acceptable on their complement-clause readings, (4b) and (5b), despite the unavailability of paraphrases with the negation in the complement clauses, (4b) and (5b).

(4) a. It isn’t clear that he’ll leave until next week.
b. It's clear that he won't leave until next week.

(5) a. You can't make me believe that he lifted a finger to help.
   b. You can make me believe that he didn't lift a finger to help.

Horn (1975, 1978b) claims that many speakers can force a grammatical reading of (4a) and (5a) sentences by imagining contexts in which the negative implication is strongly suggested, e.g. 'It's quite likely he won't leave until next week' in (4a) and 'Whatever you say, I will go on believing that he DID'T lift a finger' in (5a). When these implications are absent, they are unacceptable sentences. In this connection, Labov (1972) speaks of the contextual feature [-fact] in explaining the occurrence of any in sentences that are neither negative, interrogative, conditional, nor comparative. It may be said that until appears in (4a) or (5a) because of the [-fact] feature in its context.

So far, we have seen that the syntactic data on negative polarity items does not give sufficient evidence for the existence of Neg-Raising rule.

2. Tag Question

2.1. The second piece of syntactic evidence for the rule of Neg-Raising, given by R. Lakoff (1969), bases on the opposite polarity of the tag question to the main clause (i.e. if the main clause is positive, the tag must be negative):

(6) a. Harry will win, won't he?
   b. Harry won't win, will he?
   c. Harry will win, will he?
   d. *Harry won't win, won't he?

Here (6a) and (6b) illustrate the normal use of tag question, whereas tag with matching polarity in (6c) and (6d) are, she says 'either ungrammatical or quite different in meaning, generally sarcastic'.
If a sentence has two or more clauses, the tag questions are usually formed on the top clause. However, the tags on the complement clause are permitted under certain circumstances, as follows:

(7) a. I suppose Harry won’t win, will he?
    b. I don’t suppose Harry will win, will he?
    c. *I don’t suppose Harry will win, do I?
    d. *I don’t suppose Harry will win, won’t he?

Lakoff claims that the neg in (7b) must have originated in the complement clause when the tag is formed, because *suppose is used as a performative verb here. ‘Performative’ indicates that “the issuing of the utterance is the performing of an action — it is not normally thought as just saying something” (see Austin 1962: 6-7). (7b) is derived via Neg-Raising from the underlying sentence (7a). (7c) and (7d) are ungrammatical, since performatives cannot be questioned or negated. Accordingly the apparent oddness of (7b) is justified by explaining it as deriving from (7a).

2.2. Jackendoff (1971) points out that the above-mentioned account by Lakoff is less convincing in some cases. Observe the sentences in (8) and (9).

(8) a. Anita supposed that he hadn’t won.
    b. Anita imagined that he hadn’t won.
    c. Anita suspected that he hadn’t won.
    d. Anita guessed that he hadn’t won.

(9) a. Anita didn’t suppose that he had won.
    b. Anita didn’t imagine that he had won.
    c. Anita didn’t suspect that he had won.
    d. Anita didn’t guess that he had won.
Sentences in (9), he says, are not derivable from those in (8) by Neg-Raising. A performative must by definition occur in a present-tense and first-person sentence, but the above examples appear in a past-tense and third-person sentence.

On the other hand, Cattell (1973) shows that the verb being a performative is neither a necessary nor a sufficient condition for the formation of tags on the complement clause. Verbs like think and suppose lack one of the essential characteristics of performatives in that they cannot be preceded by hereby, a typical word that precedes a performative verb. Compare (10) with (11).

(10) a. I hereby name this ship Queen Elizabeth.
    b. I hereby declare the meeting open.

(11) a. *I hereby think Harry will win.
    b. *I hereby suppose Linda will leave tomorrow.

These examples illustrate that, unlike name and declare, think and suppose are not performative. Thus, Lakoff’s argument for a syntactic rule of Neg-Raising is untenable, Cattell claims, since it hinges crucially on the notion of performative.

3. Parentheticals

Verbs that can appear in final-position negative parentheticals are of the same class as ones that undergo Neg-Raising (see Ross 1973), as shown in (12).

(12) a. Mary won’t pass the exam, I don’t think.
    b. *Mary won’t pass the exam, I don’t claim.

He argues that negative parentheticals, unlike positive ones, may only follow negative clauses. Horn (1978a) finds that (13a) is acceptable sentence to those
speakers who use (13b), like (13c) as an indirect assertion of (13d).

(13) a. He won’t be elected this year, I don’t guess.
    b. I don’t guess he will be elected this year.
    c. I guess he won’t be elected this year.
    d. He won’t be elected this year.

It is the interrelation existing between the sentences in (13) that leads Ross to divide Neg-Raising into two steps, Not-Copying which copies a negative from a complement clause to the main clause whose main verb is such as think, believe or guess and Not-Deletion which deletes the original complement negative when a copy has been made.

Ross, however, notes that there are some problems with this copy-delete analysis. “Not-Deletion would have to incorporate features of the environment for Not-Copying” and must obligatorily apply in order to delete the original neg after it is copied. Thus Not-Deletion is obligatory, unless the complement clause that is necessary for Not-copying has been disturbed by the intervening rule Slifting (i.e. S[entence]-lifting), which preposes the complement clause. It is doubtful whether these same conditions should apply to all the applications of Not-Deletion rule.

There is another problem for Not-Deletion. Ross claims that a sentence with two negs can exist without Not-Copying and that in this case Not-Deletion must not apply. Thus (14a) must not be allowed to become (14b).

(14) a. NEG I believe [NEG Bob is honest]
    b. I don’t believe Bob is honest.

Consider the following sentences with two negs (Jackendoff 1971: 290):

(15) a. John doesn’t think that Bill didn’t go.
    b. John thinks that Bill went.
    c. *John thinks that Bill didn’t not go.
If (15a) undergoes Neg-Raising, it produces (15b), which is not synonymous with (15a). Moreover, if we consider (15a) to be produced as a result of Neg-Raising, the original form must be (15c). This problem might be settled if we explain it as follows: the negative of the main clause in (15a) is the speaker’s denial and another negative in the complement clause is a negative proposition.

4. Other Evidences

There are some other evidences that require consideration. One is the evidence produced by Lindholm (1969: 154).

(16) I don’t think Bill paid his taxes and Mary is quite sure of it.

Here it is obtainable by the rule of Sentence Pronominalization, but it presupposes the existence of the clause Bill didn’t pay his taxes. That is, the first part of (16) must have, at the time of derivation, contained the clause Bill didn’t pay his taxes. It is only after Sentence Pronominalization applies that Neg-Raising comes into operation — and we get (16).

The second evidence is what may be illustrated by the following sentences:

(17) a. She’s coming and I can guess why she’s coming.

b. She’s coming and I can guess why.

Sentence (17b) derives from (17a) by Sluicing, a rule which “has the effect of deleting everything but the preposed constituent of an embedded question, under the condition that the remainder of the question is identical to some other part of the sentence, or of a preceding sentence” (Ross 1969: 252). In this connection, Pollack (1976) notices that if the “other part of the sentence” contains a negative, the corresponding negative in embedded question may optionally remain undeleted, as in (18).
(18) a. She's not coming and I can guess why she's not coming.
    b. She's coming and I can guess why (not).

Now compare these sentences:

(19) I know she's not coming and I can guess why not.

(20) I don't think she's coming and I can guess why not.

The why not in (20), Pollack claims, is apparently a sluiced form of why she's not coming, and this suggests that the first part of the sentence (20), like (19), must have contained the clause she's not coming when Sluicing applied, otherwise there wouldn't be any structural identity to allow Sluicing. Hence, in (20) Neg-Raising takes place after Sluicing.

The third evidence is what is noted by Pollack (1976). Consider the sentences like:

(21) a. *Mary will attend the meeting and Beth won't attend either.
    b. Mary won't attend the meeting and Beth won't attend either.
    c. Mary won't attend the meeting and neither will Beth.

When either appears, he says, there must be a negative in both clauses, and when neither appears, besides there being negativity in both coordinated clauses, the VP parts of the clauses must be identical (cf. Klima 1964), since the rule of VP DELETION, which deletes a VP if it is identical with the VP in another clause, goes with neither-fronting. (21b) is, accordingly, an earlier form of (21c). Now consider (22a).

(22) a. I don't think Mary will attend the meeting and
    neither will Beth.
    b. I think Mary won't attend the meeting and Beth
    won't attend the meeting, too.

We find that for the neither-fronting accompanied by VP DELETION to apply, both coordinate clauses must be negative and identical except for the
subjects, and this corroborates the view that the deep structure of (22a) is (22b). By the same token, too appearing in the positive coordinate clause becomes either in the negative context at first and then changes into a fronted neither, followed by the obligatory VP DELETION. Since the neg must have been originally in the complement clause, it can be said that Neg-Raising applies after neither-fronting operates.

Pollack (1976) argues that there are some examples which cannot be explained by the three rules mentioned above even if the rule of Neg-Raising is considered to be cyclic, last cyclic or post-cyclic, and that the "proponents of a NEG-RAISING transformation are faced with either an ordering paradox or a fairly complicated global condition on identity for the anaphora rules". (Pollack 1976: 200)

Wasow (1972), on the other hand, insists that if the existence of Neg-Raising is permitted, other completely general constraints, as shown in (23), on the operation of grammatical rules must be violated.

(23) a ....no morphological material...can be introduced into a configuration dominated by S once the cycle of transformational rules has already completed its application to this configuration. (Chomsky 1965: 146, quoted in Wasow 1972: 274)

b. No rule applying to a configuration of the form \[a...[\beta...\beta]...a]\] where \(\alpha\) and \(\beta\) are cyclic nodes (i.e., NP or S), can involve only items in \(\beta\).

(Chomsky, lectures, 1970-71, quoted ibid.)

He shows that the existence of Neg-Raising is inconsistent with both of these formulations.
5. Closing remarks

From what has been examined above, we can conclude that none of the arguments adduce convincing evidences for Neg-Raising. In fact, the pair of a Neg-Raised and a non-Neg-Raised sentences are not used interchangeably in all contexts, and there seem to be some pragmatic conditions on the application of the rule. A further research on the semantic and pragmatic aspects of this phenomenon would clarify its communicative effect in discourse.

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