*NEG NEG

Chris Collins

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Abstract: I argue that there is a grammatical (non-semantic) constraint in English that prohibits double negation, dubbed *NEG NEG. I adduce a range of structures to illustrate this constraint, and show that apparent counter-examples are not double negation.

Keywords: negation, double negation, contrastive negation, stripping

1. Introduction

The following examples show that it is possible to negate a subject quantifier DP:

(1) a. Everybody was there.
b. Not everybody was there.

(2) a. Many people were there.
b. Not many people were there.

However, it is not possible for the negation to be iterated:

(3) a. *Not not everybody was there.
b. *Not not many people were there.

I propose that this fact results from a syntactic constraint in English (and perhaps universally) that a given element X cannot be modified by negation twice:

(4) * [NEG1 [NEG2 X]]

For brevity's sake, I will exclude consideration of a range of structures discussed in Collins and Postal 2014 (henceforth, CP2014) involving deleted (unpronounced) NEGs (e.g., reversal structures) that violate (4). In effect, I will implicitly be taking (4) to only hold when NEG1 and NEG2 are overt (non-deleted).

2. Background: Collins and Postal 2014

In the framework of CP2014, negation modifies predicates, which are defined as having a semantic value of type <x,t> (x is any type, and t is the type of truth values T/F). For example, if P is true of *x*, then [not P] is not true of *x*. More generally:

(5) NEG takes X with semantic value $\lambda P_1 \ldots \lambda P_n$ […]
and returns Y with semantic value $\lambda P_1 \ldots \lambda P_n$ ¬[…]

As CP2014 (p. 25) note: "This rule is actually a schema for an infinite number of semantically different NEGs. There will be a distinct semantic value for NEG for each different semantic type: $\lambda P_1 \ldots \lambda P_n$ […]. For propositional variables p (no predicate abstraction), the negation is simply ¬p."

In the case of quantificational DPs, NEG can either modify the whole DP or the D:

(6) a. [[NEG D] NP]
b. [NEG [D NP]]

An important point about negation in the framework of CP2014 is that there is no notion of sentential negation versus constituent negation. All negation is constituent negation, in that all negation modifies some constituent X: [NEG X]. In some cases, the negated constituent has clausal scope, as in (1b) and (2b).

3. Double Negation of Quantifiers

Consider now the sentences in (3), repeated below:

(7) a. *Not not everybody was there.
b. *Not not many people were there.

It is possible to show given CP2014's assumptions that the semantic value of [not not everybody] is the same as the semantic value of [everybody]:

(8) a. ⟦not not everybody⟧ = ⟦everybody⟧
b. ⟦not not many people⟧ = ⟦many people⟧

Therefore, it follows that the examples in (7) are not unacceptable for semantic reasons. Rather, there is a constraint of the following kind:

(9) If X is any syntactic constituent, then *[NEG1 [NEG2 X]]

This constraint blocks the following structures for (7a). In (10a), there is double negation of the DP. In (10b), there is double negation of the D.

(10) a. *[not [not [everybody]]
b. *[[[not [not every]] body]

However, the following structure is not blocked:

(11) [not [[not every] body]

There are two ways to approach this problem. First, I could generalize (9) to also block (11). Second, I could claim that the structure in (11) is disallowed for independent reasons (e.g., that *not* never modifies the quantifier *every* directly). I will not attempt to decide between these options. Another possibility that I put aside is that NEG1 modifies NEG2: [[NEG1 NEG2] everybody]. I assume that this could be ruled out by a generalization of (9) as well.

The kind of data illustrated in (7) above is quite general. A quantifier DP can never be modified by double negation (on (12) see Collins 2016):

(12) a. Even John was there.

b. Not even John was there.
c. *Not not even John was there.

(13) a. More than three people were there.
b. Not more than three people were there.
c. *Not not more than three people were there.

(14) a. Only John was there.
b. Not only John was there.
c. *Not not only John was there.

(15) a. A lot of people were there.
b. Not a lot of people were there.
c. *Not not a lot of people were there.

(16) a. Less than three people were there.
b. Not less than three people were there.
c. *Not not less than three people were there.

The constraint can also be extended to the following case:

(17) a. Nobody was there.
b. *Not nobody was there.

In the framework of CP2014, negative quantifiers such as *nobody* have the following structure:

(18) [[NEG SOME] body]

Under that analysis, the structure of (17b) would be as in (19), which is ruled out by the double negation constraint in (9):

(19) [[NEG1 [NEG2 SOME]] body]

Once again, one faces the issue of why the structure in (20) is also disallowed.

(20) [NEG1 [[NEG2 SOME] body]

Once again there are two ways to resolve the issue (generalize (9) or block NEG1 modifying the whole DP in this case). I put the issue aside.

A similar constraint rules out doubly negated adverbs. (21c,d) show that whether or not there is subject-aux inversion, double negation of the adverb is unacceptable:

(21) a. I often manage to go on fall foliage tours.
b. Not often do I manage to go on fall foliage tours.
c. *Not not often I manage to go on fall foliage tours.

d. *Not not often do I manage to go on fall foliage tours.

It may be possible to extend (9) to the following case:

(22) a. Few people were there.
b. *Not few people were there.

Assume that *few* is really a negative quantifier, where (22a) is paraphrased as follows:

(23) There is no group g containing more than n (a contextually specified number) people such that for all x in g, x was there.

If these are the right truth conditions, then (22a,b) should have the following syntactic structures:

(24) a. [[NEG SOME] [many people]] were there.
b. [[NEG1 [NEG2 SOME]] [many people]] were there.

The second structure is blocked by (9).

Kayne 2002 argues that examples with *few* involve an unpronounced noun NUMBER, so that [few books] is analyzed as [few NUMBER books], where *few* is an adjective modifying NUMBER. He also proposes that there is an unpronounced *only*: "The difference in interpretation between *a few/a little* and *few/little* may be attributable to the necessary presence of an unpronounced ONLY with the latter pair." Since *only* DPs can be modified by negation (see (14)), it is unclear whether Kayne's analysis can account for the data in (22b).

4. Range of Further Data

As shown in section 3, the constraint in (9) successfully blocks many cases of double negation of quantificational DPs. In this section, I show that it can be extended to a range of other data. First, consider the following non-quantification reason adjuncts:

(25) a. He didn't leave because he was angry.
b. Not because he was angry did he leave.
c. *Not not because he was angry he left.
d. *Not not because he was angry did he leave.

(25c,d) show that whether or not there is subject-aux inversion, the reason phrase cannot be doubly negated: *[NEG [NEG because he was angry]].

Similar examples can be found with purpose clauses:

(26) a. I did not leave early in order to catch the bus.
b. Not in order to catch the bus did I leave early.
c. *Not not in order to catch the bus I left early.
d. *Not not in order to catch the bus did I leave early.

Consider examples of contrastive negation discussed by McCawley (1991: 190):

(27) a. John drank not coffee, but tea (basic form)
b. John drank tea, not coffee (reverse form)

Neither of these forms can involve double negation:

(28) a. *John drank not coffee but not not tea.
b. *John drank not not tea, not coffee.

Consider now *stripping*, as defined by Hankamer and Sag (1976: 409): "Stripping is a rule that deletes everything in a clause under identity with corresponding parts of a preceding clause, except for one constituent (and sometimes a clause-initial adverb or negative)." I put aside the issue of whether contrastive negation should be analyzed as a form of stripping. Hankamer and Sag (1976: 409) give the following example:

(29) Allan likes to play volleyball, but not Sandy.

Once again, double negation is not possible here:

(30) a. It is not Allan who likes to play volleyball, but rather Sandy.
b. *It is not Allan who likes to play volleyball, but rather not not Sandy

Similarly, when stripping is used in the answer to questions it also obeys *NEG NEG:

(31) A: Who was there?
B: Not John.
B': *Not not John.

5. Apparent Counter-Examples

A class of apparent counter-examples to (9) include sentences such as (32c):

(32) a. I am happy.
b. I am not happy.
c. I am not not happy.

However, there is good reason to believe that the two negations in (32c) do not modify the same constituent. For example, as noted in Horn 2014, NEG2 has a very specific intonation, distinct from that of NEG1. And as also noted in Horn 2014, the interpretation of (32c) is not identical to that of (32a), as would be expected if the two NEGs modified the same constituent.

I tentatively suggest that in (32c), NEG1 is a sentential negation. In the framework of PP/minimalist syntax, it would head a NEGP. In the framework of Collins and Postal 2016 and Collins, Postal and Yevudey 2016, it would negate a Davidsonian event quantifier. NEG2, on the other hand, directly modifies the adjective phrase. So I propose structure (33), where crucially NEG1 does not modify the adjective phrase.

(33) I am NEG1 [$_{\text{ADJP}}$ NEG2 happy]

One piece of evidence for this is the following. [NEG happy] can be modified by *very* and also comparative marker *more* (in an informal register):

(34) a. He is very not happy.
b. He is more not happy than you are.

However, double negation is completely unacceptable here, as predicted by (9):

(35) a. *He is very not not happy.
b. *He is more not not happy than you are.

Furthermore, although (32c) is acceptable, (36) below involving triple negation is much worse (putting the special intonation on NEG2):

(36) *He is not not not happy.

In this example, NEG1 is the sentential negation, and NEG2 and NEG3 modify the AdjP:

(37) He is NEG1 [$_{ADJP}$ NEG2 [$_{ADJP}$ NEG3 happy]]

In (37), the structure [$_{ADJP}$ NEG2 [$_{ADJP}$ NEG3 happy]] violates (9).

Now consider negation of infinitival clauses (based on data from Kayne 1999). Negation may appear either before or after the infinitival *to*:

(38) a. I persuaded John to not like Clinton.
b. I persuaded John not to like Clinton.

Double negation is also possible:

(39) I persuaded John not to not like Clinton.
'I persuaded John not to dislike Clinton.'

We can account for (39) in the same way as (32c). In (39) each NEG is negating a different constituent. NEG1 is sentential negation and NEG2 is modifying the VP. So there is no violation of *NEG NEG. But now consider the following:

(40) a. *I persuaded John not not to like Clinton.
b. I persuaded John to not not like Clinton.

While (40a) is completely ungrammatical, (40b) seems to be OK under the same kind of interpretation as (32c). In other words, in (40b), there is a special intonation on NEG2, and the hope is that John comes to not dislike Clinton (not that he comes to like her).

Under my analysis, (40a) is ruled out by *NEG NEG, while (40b) has an analysis similar to (32c). NEG1 is sentential negation, and NEG2 negates the verb *like*.

Putting together the pattern of (38b) and (40b), one might expect the following to be acceptable:

(41) I persuaded John not to not not like Clinton.

However, this seems unacceptable. Putting aside the real possibility that it is simply unparsable, and that three NEGs are too many to process, I propose that (41) is also a violation of *NEG NEG. Suppose that sentences like (38b) are analyzed with NEG Raising:

(42) I persuaded John NEG1 to <NEG1> like Clinton

In (42), NEG1 is raised from the position following the infinitival marker to a position preceding it. If this is correct, then the analysis of (41) would be:

(43) I persuaded John NEG1 to <NEG1> NEG2 NEG3 like Clinton.

(43) should be unacceptable for the same reason that (36) is. That is, either NEG1 and NEG2 modify the same thing (sentential negation) or NEG2 and NEG3 modify the same thing (the VP).

6. Conclusion

In this squib, I have argued for a constraint on double negation: *NEG NEG. I have shown how this constraint applies to rule out doubly negated quantifier DPs, doubly negated adverbs, doubly negated reason and purpose clauses, contrastive double negation, double negation in stripping and double negation of infinitival clauses. I have also shown how certain apparent counter-examples do not in fact violate *NEG NEG.

I have argued that *NEG NEG is not a semantic constraint. I speculate it is a property of UG, holding of all languages.

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