

## Negative Polarity Items and Overcoming Assertoric Inertia

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Since my first discussion (Atlas 1991) of Larry Horn's (1969, 1979, 1992, 1996) analysis of Only Muriel voted for Hubert, I have carefully distinguished between the cases in which the focal Noun Phrase is a singular term, e.g. Muriel, and cases in which it is a Common Noun or Count Noun, e.g. Democrats in Only Democrats voted for Clinton. My original criticisms were addressed to the analysis of cases in which the focal Noun Phrase is a singular term, and in particular a Proper Name. Over the years Horn has analyzed the relationships among:

- (1) a. Only Muriel voted for Hubert.
- b. Muriel voted for Hubert.
- c. No one distinct from Muriel voted for Hubert.
- d. Someone voted for Hubert.

Horn has claimed that (1a) Only Muriel voted for Hubert asserted, and so entailed, (1c) No one distinct from Muriel voted for Hubert, and that (1a) semantically presupposes (Horn 1969), or conventionally implicates – and so pragmatically presupposes (Horn 1979) – or conversationally implicates (Horn 1992) (1b) Muriel voted for Hubert. In Horn (1996) he modified the claim to one in which (1a) Only Muriel voted for Hubert accommodates (Lewis 1979) (1d) Someone voted for Hubert. In all these analyses he denied that (1a) Only Muriel voted for Hubert entails (1b) Muriel voted for Hubert. He (Horn 1969, 1992) also, as did I (Atlas 1991, 1993), argued against a conjunctive analysis Muriel voted for Hubert & No one distinct from Muriel voted for Hubert for Only Muriel voted for Hubert. Since Atlas (1991) I have argued that (1a) Only Muriel voted for Hubert does entail (1b) Muriel voted for Hubert.

Recently, in his Tokyo lecture of March 2001, his Henry Sweet Lecture to the Linguistics Association of Great Britain in September 2001, and now in his Chicago Linguistics Society Lecture “Assertoric Inertia and NPI Licensing” of April 2002, Horn has finally granted that (1a) Only Muriel voted for Hubert does entail (1b) Muriel voted for Hubert. He has granted the semantical anomalousness of:

- (2) a. # Only Hillary trusts Bill, and she doesn't.  
 b. # I love only you, but I don't love you either.

He has also now granted the failure of (3a) Only Socrates entered the race to entail (3b) Only Socrates entered the race early. Thus, he now grants that Only Socrates is not

- (3) a. Only Socrates entered the race.  
 b. Only Socrates entered the race early.

downward entailing and so fails to meet the downward monotonicity condition required by Ladusaw (1980) for a generalized quantifier Noun Phrase (NP) to license the grammatical co-occurrence of Negative Polarity Items, as in (4a), with the “weak” NPI ever, and in (4b,c), with “minimizer” NPIs.

- (4) a. Only John ever suspected David Alexander.  
 b. Only your wife gives a hoot about what happens to you. (McCawley 1981:83)  
 c. Only Phil would lift a finger to help Lucy.

I (Atlas 1996) have argued that though <sup>1</sup> only Proper Name <sup>1</sup> was not downward entailing, it was “pseudo-anti-additive,” i.e. that it met the DeMorgan condition of closure under finite unions, as in (5), while failing to meet the downward entailing conditions (6 a,b).

- (5) Only John smokes & only John drinks ||- Only John (smokes or drinks).  
 (6) a. Only John (smokes or drinks) ||- Only John smokes & only John drinks.  
 b. Only John smokes v only John drinks ||- Only John (smokes and drinks).

By contrast with the Proper Name case, I always held that the Count Noun case was downward entailing, as in (7 a,b), and even anti-additive by also satisfying (8). I criticized

- (7) a. Only women smoke or drink ||- Only women smoke & only women drink.  
 b. Only women smoke v only women drink ||- Only women smoke and drink.  
 (8) Only women smoke & only women drink ||- Only women smoke or drink.

the semantic explanation of NPI licensing by observing that <sup>1</sup> only Proper Name <sup>1</sup> was not downward entailing yet still licensed some NPIs, as in (4) above. But <sup>1</sup> only NP <sup>1</sup> does not license every NPI, as shown in (9). I (Atlas 1996: 286) speculated that the NPI minimizer data of (4 b,c) were explicable by conventionalization of the use of minimizers with focused NPs – the very feature of NPs that would occur in denial and echoic question contexts, as in (10 a,b), thus explaining the acceptability of even the upwards entailing NP in (10c).

- (9) a. \* Only Bill wants Sam to finish the report **until Friday**.  
 b. ? Only I was **all that keen** to go to the party.  
 c. ? Only Phil would **give Lucy a red cent**.
- (10) a. Don't say that! I do too **give a hoot** about what happens to you.  
 b. Why am I alive **at all**? I'm alive **at all** because ...  
 c. Even Phil would **lift a finger** to help Lucy.

The co-occurrence with <sup>l</sup> only NP <sup>l</sup> of a “weak” NPI like ever or any, I speculated, might be explained by its focused character combined with the pseudo-anti-additivity of <sup>l</sup> only NP <sup>l</sup>. In Horn’s CLS Lecture he seems to think that I had claimed that focused character alone sufficed as an explanation for the licensing of any or ever. I made no such claim.

It seems clear from Horn’s lecture that he thinks that the licensing of at least one NPI is SUFFICIENT to make <sup>l</sup> only NP <sup>l</sup> a “negative” NP. It is obviously not sufficient to make the NP downward-entailing; the acceptability of the upward entailing even Phil co-occurring with the minimizer lift a finger in (10c) shows that. So why does Horn think that <sup>l</sup> only NP <sup>l</sup> is “negative,” when it is not downward entailing and the minimizer data of (4 b,c) have an alternative explanation?

It is the minimizer data (4b), (4c) and weak NPI datum (4a) that persuade Horn (2002, ex. (71)) that <sup>l</sup> only NP <sup>l</sup> must be “negative.” In Horn’s lecture he reports me as believing that because <sup>l</sup> only NP <sup>l</sup> is not downward entailing it is not a polarity licenser. To the contrary, in Atlas (1993: 313) I offered data of NPI licensing by <sup>l</sup> only Proper Name <sup>l</sup>, but I argued that because <sup>l</sup> only PN <sup>l</sup> licensed some NPIs without being downward entailing, downward-entailingness could not be a general explanation of its licensing NPIs. Yet Horn remains convinced that <sup>l</sup> only NP <sup>l</sup> is “negative.”

Since Horn (2002: Handout, p.6) now admits that the affirmative proposition Muriel voted for Hubert is ENTAILED by Only Muriel voted for Hubert, his dilemma is this: Only Muriel voted for Hubert is not downward entailing, but it is still “negative,” since it licenses some NPIs. How do we make a non-downward-entailing generalized quantifier “negative”?

The characterization of Muriel voted for Hubert as a “presupposition” was, Horn (1979, 1992) once thought, justified by the diagnostics for conventional implicature (Grice 1989) in the classic paper “Conventional Implicature” by Karttunen and Peters (1979). Karttunen and Peters gave a Gricean conventional implicature account of (11a), whereby the truth-conditions of “what (11a) says” is expressed by (11b), and the further commitments of an asserter of (11a) are to the “conventional implicata” (11c) and (11d), which are not asserted in the asserting of (11a) (Karttunen and Peters 1979: 12). According

- (11) a. Even Bill likes Mary.  
 b. Bill likes Mary.  
 c. Other people besides Bill like Mary.

d. Of the people under consideration, Bill is the least likely to like Mary.

to Karttunen and Peters when such a sentence occurs in a complement, e.g. in (12a), “what is said or meant” in (12a) is (12b), not (12c) or (12d) or (12e) (Karttunen and Peters 1979: 13).

(12) a. I just noticed that even Bill likes Mary.

b. I just noticed that Bill likes Mary.

c. I just noticed that other people besides Bill like Mary.

d. I just noticed that of the people under consideration, Bill is the least likely to like Mary.

e. I just noticed that Bill likes Mary, that other people besides Bill like Mary, and that of the people under consideration, Bill is the least likely to like Mary.

But the conventional implicature in (11c) and (11d) are allegedly inherited by (12a), and the assertion of (12a) commits the speaker to the truth of (11c) and (11d) as much as the assertion of (11a) does.

It is notable that the contrast between “what is implicated” in asserting a sentence and “what is asserted” or “what is meant” plays a crucial role in the description of Karttunen and Peters’s linguistic intuitions. Their claim that what is asserted in (12a) I just noticed that even Bill likes Mary is just (12b) I just noticed that other people besides Bill like Mary, and none of (12 c,d,e), is a strong one. Karttunen and Peters take “conventional implicatures” to determine felicity conditions on assertion and thus to contribute to the “pragmatic presuppositions” of the utterance.

Horn’s most recent proposal is to take the Karttunen-Peters observations as drawing a distinction between “what is asserted” and “what is not asserted.” Thus he asks of (13a) Only Muriel voted for Hubert whether an assertion of (14a) It’s too bad that only Muriel voted for Hubert means (14b) It’s too bad that Muriel voted for Hubert or (14c) It’s too bad that no one distinct from Muriel voted for Hubert.

(13) a. Only Muriel voted for Hubert.

b. Muriel voted for Hubert.

c. No one distinct from Muriel voted for Hubert.

(14) a. It’s too bad that only Muriel voted for Hubert.

b. It’s too bad that Muriel voted for Hubert.

c. It’s too bad that no one distinct from Muriel voted for Hubert.

Horn has plausibly claimed that an assertion of (14a) It’s too bad that only Muriel voted for Hubert just “means” (14c) It’s too bad that no one distinct from Muriel voted for Hubert. So he believes that the negative content of an <sup>l</sup> only Proper Name <sup>l</sup> sentence is assertorically “foregrounded” and its affirmative content presuppositionally “back-grounded.” This is admittedly a natural interpretation of an assertion of (14a) It’s too bad that only Muriel voted for Hubert. Now consider (15):

- (15) a. It's fortunate that only Hillary trusts Bill.  
 b. It's fortunate that Hillary trusts Bill.  
 c. It's fortunate that no one distinct from Hillary trusts Bill.

Once again Horn's intuition that a natural interpretation of an assertion of (15a) It's fortunate that only Hillary trusts Bill expresses the foregrounded proposition (15c) It's fortunate that no one distinct from Hillary trusts Bill seems plausible.

Now, for the moment, let us suppose these Karttunen-Peters-Horn claims are unproblematic. How does Horn use these observations to resolve the dilemma created by his admitting that I was right to say that Only  $\alpha$  Fs entails  $\alpha$  Fs and that [only  $\alpha$ ] is a non-monotonic but pseudo-anti-additive quantifier? It is not downwards entailing, but it licenses some NPIs and so, on Horn's view, must be "negative."

In his CLS lecture Horn suggests that though Only  $\alpha$  Fs entails  $\alpha$  Fs, assertoric utterances of the sentence assert No one distinct from  $\alpha$  Fs but do not assert  $\alpha$  Fs. If – and that is a large 'if' – the licensing of Negative Polarity Items depends on "what is asserted" in an utterance, and the asserted utterance-meaning is downwards entailing, then the conventional hypothesis of NPI licensing by a downwards entailing, and so logically negative, generalized quantifier NP can be preserved from refutation by Atlas's (1991, 1993, 1996, 1997) counter-example of Only  $\alpha$  Fs. In this new analysis  $\alpha$  Fs, though admittedly entailed, suffers from "assertoric inertia," while No one distinct from  $\alpha$  Fs has "assertoric momentum." Thus the analysis of Only Muriel voted for Hubert is as follows:

- (16) A Speaker who asserts  
 (M) Only Muriel voted for Hubert  
 (a) asserts No one distinct from Muriel voted for Hubert;  
 and (b) (M) entails but its asserting does not assert Muriel voted for Hubert.

Horn (2002, Handout, p. 7) offers two distinct representations of the utterance, exhibiting both asserted and unasserted components, in (17a) and (17b).

- (17) An assertion of 'Only Muriel voted for Hubert', viz.  
 |-- Only Muriel voted for Hubert,  
 is represented by either:  
 (a) { Muriel voted for Hubert & |-- No one distinct from Muriel voted for Hubert }  
 or (b) { Someone voted for Hubert & |-- No one distinct from Muriel voted for Hubert },  
 where ' |-- ' is the assertoric force marker (Frege's Begriffsschrift, Searle (1969)).

Horn does not give any theory of these assertorically heterogeneous representations, or of the nature of the assertoric force marker, so there is hardly anything to say in detail about this view.

It is, at the least, mildly ironic that Horn, after rejecting the conjunction analysis  $\alpha$  Fs & no one distinct from  $\alpha$  Fs for Only  $\alpha$  Fs in Horn (1969), Horn (1979), and Horn (1992), should adopt in Horn (2002) a subtle version of a traditional conjunction analysis in (17a) consisting of a “presupposition” conjoined with an asserted content (truth-conditions). The second representation in (17b) is akin to Horn’s (1996) view that when one asserts Only Muriel voted for Hubert, Someone voted for Hubert is “accommodated” (Lewis 1979); the accommodated proposition, when combined with the negative truth-conditions of the assertion, entails Muriel voted for Hubert. The propositional contents of (17a) and (17b) are logically equivalent.

But, unlike the view of Horn (1996), Horn cannot now take the view that Someone voted for Hubert is accommodated. Accommodation introduces in real time as an assertion is made “unpresupposed” presupposition-like proposition into the common ground in order that the assertion be “acceptable”, “felicitous”, in the context of utterance. In order to secure the entailment of Muriel voted for Hubert, the proposition Someone voted for Hubert cannot be the content of a felicity condition, or a pragmatic presupposition, of the assertion of Only Muriel voted for Hubert, since the necessity of a semantic entailment from Only Muriel voted for Hubert cannot depend on the contingency of a pragmatic feature like the felicity condition of an assertion in a context of utterance. Furthermore, on the analysis of (17b), the claim made by Horn that the entailed Muriel voted for Hubert is assertorically inert is a trivial claim. Muriel voted for Hubert is not a component of the analysis in (17b) of Only Muriel voted for Hubert, so it is not even a candidate for assertoric force in the assertion of Only Muriel voted for Hubert. So, of course, it is assertorically inert.

I should point out that an assertion of No one {distinct from, other than, besides} Muriel voted for Hubert Generally Conversationally Implicates Muriel voted for Hubert, so what Grice (1989) called ‘the total signification of the utterance’, not ‘what is said’, consists in Muriel voted for Hubert & no one distinct from Muriel voted for Hubert, which, of course, is just the traditional conjunctive analysis, which entails Muriel voted for Hubert. From Grice’s point of view, if in asserting Only Muriel voted for Hubert the speaker asserts No one distinct from Muriel voted for Hubert, which is now Horn’s position, not “what is asserted” but “what is totally signified” entails Muriel voted for Hubert.

If one adopts the representation in (17a), the claim that Muriel voted for Hubert is assertorically inert stands a chance of being non-trivial, but then the arguments of Horn (1969, 1979, 1992) and of Atlas (1991, 1993) against any conjunctive analysis of Only Muriel voted for Hubert would seem to come into play. As I have argued (Atlas 1991, 1993), no statement, with usual intonation and stress, of ‘Only Muriel voted for Hubert’ is about Muriel, but normal statements of ‘Muriel voted for Hubert & no one distinct from Muriel voted for Hubert’ are about Muriel (the topic of the first conjunct), so the latter statement cannot be the correct analysis of the former statement.

If Horn replies, as he should, that the statement |--Muriel voted for Hubert & no one distinct from Muriel voted for Hubert is not the same as the representation  $\{ \text{Muriel voted for Hubert} \ \& \ |-- \ \text{No one distinct from Muriel voted for Hubert} \}$ , so that the argument that I just offered against the traditional conjunctive analysis is misdirected against his, I would indeed need to reformulate my argument against his conjunctive analysis. What is the statement Only Muriel voted for Hubert about? It is about those who voted for Hubert. What is No one distinct from Muriel voted for Hubert about? Its logical form, as noted by Horn, is  $\lceil \neg \exists y ( \neg (y=m) \ \& \ y \text{ voted for Hubert} ) \rceil$ , or equivalently,

$\lceil \forall y ( y \text{ voted for Hubert} \rightarrow (y=m) ) \rceil$ . As I discussed in Atlas and Levinson (1981: 42-3), utilizing ideas of Putnam (1958) and Popper (1959: 122), No one distinct from Muriel voted for Hubert, which does not entail Muriel voted for Hubert, is about the set of voters for Hubert (Popper) or about the union of the set of voters for Hubert with the set of non-Murielizers (Putnam). If it is true that only Muriel voted for Hubert, Popper's set is {Muriel}, and Putnam's set is the Domain of Quantification – everyone. If it is false, then either Muriel did not vote for Hubert, or someone else did. So the set of voters for Hubert either fails to contain Muriel, or it contains Muriel and at least one other voter for Hubert (Popper). On Putnam's view, the set contains everyone in either case. So whether the sentence is true or false, Putnam would have to say that the sentence is about everyone. Popper would say that the sentence is about Muriel if true, and either fails to be about Muriel or is about Muriel and at least one other if false. Popper's account is clearly preferable to Putnam's. Thus I shall take No one distinct from Muriel voted for Hubert to be about the set of voters for Hubert. So there is no lack of identity between the statement-topics of the analysandum and the analysans, as there was in the traditional conjunctive analysis. Horn's representation is not open to my objection against the traditional conjunctive analysis.

The problem is to understand what the “conjunction” of an unasserted sentence with an asserted sentence actually means. It is easy to understand the assertion of a full conjunction of individually unasserted sentences: |-- (A & B). It is possible to understand the “conjunction” of two speech-acts ( $F_1(P_1) \wedge F_2(P_2)$ ) as the concatenation of two illocutionary acts of assertion, |-- A  $\cap$  |-- B, as a temporal sequence of speech-acts. It is less easy to see how to “conjoin” or concatenate a propositional content with an assertoric act, i.e. it is not easy to see what such a thing would mean. Thus the representation seems to be a way of having the negative proposition as the statement's truth-conditions, and then adding, “By the way, the statement Only Muriel voted for Hubert entails Muriel voted for Hubert.”

Horn's substantive claim to justify the licensing NPIs by Only  $\alpha$  Fs is now this:

(18) Downward asserting, not downward entailing, operators license NPIs.

For example, Only  $\alpha$  is downward entailing, since its asserted content is No one distinct from  $\alpha$ , which Atlas (1996: 304) notes is anti-additive.

Thus Horn (2002) tries to have it all. Admitting the entailment and non-monotonicity claims of Atlas (1991, 1993, 1996, 1997), he preserves the downwardness of Only  $\alpha$  by using the diagnostics of Karttunen and Peters (1979) for the distinction between truth-conditions and non-truth-conditional Gricean conventional implicature, now understood as a distinction between “what is said” (asserted) and what is not asserted. What was once conventionally implicated or pragmatically presupposed (Horn 1979, 1992) is now entailed but not asserted.

As a solution to the problem Horn sets himself, this is a clever idea. I certainly cannot object to this pragmatic, speech-act emphasis on assertion, since Horn (2002) notes that in passing I made similar observations in Atlas (1991, 1993), though I did not anticipate Horn’s use of similar ideas. Let me quote myself, from Atlas (1993: 305-6), quoting myself from Atlas (1991: 139):

Horn’s ... argument concerns the role of the proposition [Hillary trusts Bill] in the speech-act of asserting Only Hillary trusts Bill. Horn (1992: 180) claims that the data of:

- a. If only Hillary trusts Bill, all is well.
- b. I just discovered that only Hillary trusts Bill.
- c. It’s too bad that only Hillary trusts Bill.
- d. I know Hillary trusts Bill, but does ONLY Hillary trust Bill?
- e. # I know nobody besides Hillary trusts Bill, but does only Hillary trust Bill?

Bill?

show that Only Hillary trusts Bill at most conventionally implicates, and does not “say” (assert), that Hillary trusts Bill. Horn (1992: 180) writes:

The fact that the positive proposition [Hillary trusts Bill] falls outside the scope of the assertion in each case reinforces the view that we are dealing with a non-truth-conditional aspect of conventional meaning. But are we? Or is a more unconventional analysis called for?

The “more unconventional analysis” that Horn [1992] will adopt appeals to generalized conversational rather than conventional implicature. But his objection is to the traditional conjunction/entailment analysis.

This objection can be met. The entailment analysis of Atlas (1991) shows how the positive proposition can fall outside the scope of assertion and yet be entailed, and so be a truth-conditional aspect of meaning. ... I (Atlas 1991: 139) wrote ...:

From the point of view of a theory of speech-acts, in asserting Only a is F, we do not thereby **assert** a is F, the way we would if the statement were to consist of a conjunction  $^l a \text{ is } F \ \& \ \Phi ^l$ . Rather, what we do assert **entails** a is F, but it does not “say” it. This feature of my

analysis preserves Aquinas's and Geach's intuition that an "excluder" like only excludes everything other than what is named by the subject-term 'a' from "sharing in the predicate 'F'" and need not go on to say something named by the subject-term does "share in the predicate" (Geach 1962/ 1980: 208-9).

In my (Atlas 1991: 138) view the positive "proposition is a **syncategorematic proposition**, and it cannot be simplistically conjoined with No one other than a is F by '&' to yield a logical form for the ['only'] sentence of the type P & Q," where P and Q are closed formulae. The objection that Horn makes to the traditional conjunctionalist analysis does not apply to my entailment analysis.

That analysis of Only Muriel voted for Hubert was One individual, and Muriel if anyone, voted for Hubert, whose logical form is:  $\exists x \forall y [ (x = y \leftrightarrow Fy) \& (Fy \rightarrow y = m) ]$ .

- (19) a. Only Muriel voted for Hubert.  
 b. One individual, and Muriel if anyone, voted for Hubert.  
 c.  $\exists x \forall y [ (x = y \leftrightarrow Fy) \& (Fy \rightarrow y = m) ]$ .

Horn's 1996 analysis tried to provide a general explanation for both the only NP and only CN cases. He did so by appealing, not to generalized conversational implicature  $\alpha$  is F but, to accommodation of There are As in asserting  $\lceil \text{ONLY}(B,A) \rceil$ , since he took  $\lceil \text{ONLY}(B,A) \rceil$  to be logically equivalent to  $\lceil \text{ALL}(A,B) \rceil$ . I objected to this analysis, since I had shown that only NP was non-monotonic while only CN was downwards monotonic and that  $\lceil \text{ONLY}(B,A) \rceil$  entailed  $\lceil \text{ALL}(A,B) \rceil$  but not conversely. Thus Horn's (2002) new analysis accepts my (Atlas 1996) claim that only NP and only CN are logically distinct cases. His new analysis, as can be seen in my quotation above, returns to the ideas and data of Horn (1992). He returns to Karttunen and Peters's (1979) data and conventional implicature analysis, now couched in terms of assertion and non-assertion. If I am to provide clearer and more compelling reasons for Horn to just give it up that because it licenses some NPIs, there is some sense in which Only  $\alpha$  Fs is logically negative – clearer and more compelling to Horn than the nineteen pages of discussion in Atlas (1996: 284-91, 299-303, 305, 307-8, 311-13) -- I am obviously going to have to adopt another angle of attack.

The data of (14) seemed to support the Horn-Karttunen-Peters analysis of asserted content, that (14a) It's too bad that only Muriel voted for Hubert just means (14c) It's too bad that no one distinct from Muriel voted for Hubert. But consider (20):

- (14) a. It's too bad that only Muriel voted for Hubert.  
 b. It's too bad that Muriel voted for Hubert.  
 c. It's too bad that no one distinct from Muriel voted for Hubert.

- (20) a. It's good that only Muriel waited up for Hubert.  
 b. It's good that Muriel waited up for Hubert.  
 c. It's good that no one distinct from Muriel waited up for Hubert.

It is clear that an assertion of (20a) It's good that only Muriel waited up for Hubert does not just mean (20c) It's good that no one distinct from Muriel waited up for Hubert. The data of (15) also seemed to support the Horn-Karttunen-Peters analysis, that (15a) It's fortunate that only Hillary trusts Bill just means (15c) It's fortunate that no one distinct from Hillary trusts Bill, but consider (21a) I don't care that only Hillary trusts Bill, where, again, an assertion of (21a) does not just mean (21c) I don't care that no one distinct from Hillary trusts Bill.

- (15) a. It's fortunate that only Hillary trusts Bill.  
 b. It's fortunate that Hillary trusts Bill.  
 c. It's fortunate that no one distinct from Hillary trusts Bill.

- (21) a. I don't care that only Hillary trusts Bill.  
 b. I don't care that Hillary trusts Bill.  
 c. I don't care that no one distinct from Hillary trusts Bill.

The data of (20) and (21) are clear counter-examples to the kind of analysis that the data of (14) and (15) suggested to Horn, Karttunen, and Peters.

Another example that Horn (2002) uses to support the Karttunen-Peters analysis of “what is said” is a sentence with almost VP, which he believes has a foregrounded component “near to VP” and a backgrounded component “not VP.” For example, an assertion of (22a) I just discovered that my cat almost proved Fermat's Last Theorem is plausibly understood by Horn (2002, ex. 77a) to mean (22b) I just discovered that she “came close to” proving it, not (22c) I just discovered that she did not succeed. But the opposite intuition obtains in example (23a) I just discovered that Andrew Wiles almost proved Fermat's Last Theorem, asserted by a mathematician whose speciality is algebraic

- (22) a. I just discovered that my cat almost proved Fermat's Last Theorem.  
 b. I just discovered that she “came close to” proving it.  
 c. I just discovered that she did not succeed.

- (23) a. I just discovered that Andrew Wiles almost proved Fermat's Last Theorem.  
 b. I just discovered that Andrew Wiles “came close to” proving it.  
 c. I just discovered that Andrew Wiles did not succeed.

geometry and who has discovered the subtle error in Wiles's first proposed proof given by him in a colloquium in Cambridge. In this context an assertion of (23a) I just discovered that Andrew Wiles almost proved Fermat's Last Theorem does not just

mean (23b) I just discovered that Andrew Wiles came close to proving Fermat's Last Theorem .

Horn believes that (24a) I just took a survey of the White House, and I discovered that only Hillary trusts Bill, when asserted, has the utterance-meaning (24b) I just took a survey of the White House, and I discovered that no one distinct from Hillary trusts Bill but not (24c) I just took a survey of the White House, and I discovered that Hillary trusts Bill. To the contrary, it seems linguistically obvious to me that an assertion of (24a) I just took a survey of the White House, and I discovered that only Hillary trusts Bill does not have just the utterance-meaning of (24b) I just took a survey of the White House, and I discovered that no one distinct from Hillary trusts Bill.

(24) a. I just took a survey of the White House, and I discovered that only Hillary trusts Bill.

b. I just took a survey of the White House, and I discovered that no one distinct from Hillary trusts Bill.

c. I just took a survey of the White House and I discovered that Hillary trusts Bill.

For every example that seems to support a Karttunen-Peters diagnostic for an assertion's utterance-meaning being just a foregrounded component of its sentence-meaning and a component of its sentence-meaning not being asserted, one can, with a little ingenuity, construct an example with no such component of sentence-meaning exhausting the utterance-meaning of the assertion. But Horn has one further linguistic argument in his defense.

Horn claims that one cannot assert or question felicitously what has just been asserted. For example, (25a) and (25b) are illocutionarily odd.

(25) a. # The cat is on the mat, but the cat is on the mat.

b. # The cat is on the mat, but is the cat on the mat?

Horn finds (26a) acceptable and (26b) unacceptable, which he takes as evidence that Only Hillary trusts Bill asserts No one distinct from Hillary trusts Bill, just as he interprets the assertion of (27a) to be (27b) and so purports to explain the alleged illocutionary anomaly of (26b) just as he does (25b).

(26) a. I know Hillary trusts Bill, but does ONLY Hillary trust Bill?

b. #<sup>[sic]</sup> I know no one distinct from Hillary trusts Bill, but does ONLY Hillary trust Bill?

(27) a. It's too bad that only Hillary trusts Bill.

b. It's too bad that no one distinct from Hillary trusts Bill.

Horn thinks that the sentence in (26b) is “totally impossible,” but I disagree. One merely has to spend time with the English middle-classes to hear (26b) as an arch, indirect, but linguistically acceptable way of asking whether Hillary trusts Bill.

Neither Horn’s constraint on acceptable assertion nor Karttunen and Peters’s use of epistemic or emotive factives show that, when asserted, Only  $\alpha$  Fs has the negative proposition No one distinct from  $\alpha$  Fs as its foregrounded utterance-meaning and the affirmative proposition  $\alpha$  Fs assertorically backgrounded. Horn reformulates his account of  $\alpha$  Fs in Only  $\alpha$  Fs as an account of a non-assertion, by contrast with the truth-conditions or the asserted utterance-meaning No one distinct from  $\alpha$  Fs. Horn attempts to resolve the dilemma of how a non-monotonic Only  $\alpha$  can still be semantically downward monotonic in order to license NPIs, while allowing an entailed  $\alpha$  Fs, by hypothesizing a downward monotonic assertoric content of Only  $\alpha$  Fs. Unfortunately his account crucially relies on Karttunen and Peters’s (1979) faulty observations.

I had never, in all my arguments with Horn about ‘only’, been forced to review the fundamental claims made by Karttunen and Peters, but in using observations on the assertoric force of Only  $\alpha$  Fs, Horn has forced a re-examination of Karttunen and Peters’s claims upon me. The faults of their analysis undermine the new analysis that Horn (2002) has given. Even were Karttunen and Peters’s observations sound, there would still remain the theoretical question why it should be necessary for the grammatical occurrence of NPIs in a sentence that the sentence be asserted and the task of constructing a theory of unasserted, entailed, and asserted components in the representations of utterance-meanings.

With the failure of Karttunen and Peters’s account of the assertoric meaning of “presuppositional” utterances, and the consequent weakness of an account like Horn’s (2002) that essentially relies upon it, the analysis that I had proposed, in (19), and the treatment of assertoric force that I gave in the quotation that just precedes (19), still seem to me to do justice to the data of NPI licensing, to intuitions about speech-acts, and to logical intuitions that we have about the entailments only NP sentences. I remain as unconvinced as ever that downward entailment can explain the distributional data of NPI licensing.

## References

- Atlas, J.D. (1991). “Topic/Comment, Presupposition, Logical Form and Focus Stress Implicatures: the Case of Focal Particles only and also”, *J. of Semantics* 8: 127-47.
- Atlas, J.D. (1993). “The Importance of Being ‘Only’: Testing the Neo-Gricean Versus Neo-Entailment Paradigms”, *J. of Semantics* 10: 301-18.
- Atlas, J.D. (1996). ‘Only’ Noun Phrases, Pseudo-Negative Generalized Quantifiers, Negative Polarity Items, and Monotonicity”, *J. of Semantics* 23: 265-332.

- Atlas, J.D. (1997). "Negative Adverbials, Prototypical Negation, and the DeMorgan Taxonomy", *J. of Semantics* 14: 349-68.
- Atlas, J.D. and Levinson, S.C. (1981). "It-Clefts, Informativeness, and Logical Form: Radical Pragmatics (Revised Standard Version)". *Radical Pragmatics*. Ed. P. Cole. New York: Academic Press. Pp. 1-60.
- Geach, P. (1962/ 1980). *Reference and Generality*. Ithaca, New York: Cornell Univ. Press.
- Grice, H.P. (1989). *Studies in the Way of Words*. Cambridge, Massachusetts: Harvard Univ. Press.
- Horn, L. (1969). "A Presuppositional Analysis of only and even." *CLS5*: 97-108.
- Horn, L. (1979). "Only, even, and conventional implicature", LSA Paper, Los Angeles
- Horn, L. (1992). "The Said and the Unsaid", *SALT II*: 163-192.
- Horn, L. (1996). "Exclusive Company: Only and the Dynamics of Vertical Inference", *J. of Semantics* 13: 1-40.
- Horn, L. (2002). "Assertoric Inertia and NPI Licensing", *CLS 38 Paper*, Chicago, April, 2002.
- Karttunen, L. and S. Peters (1979). "Conventional Implicature". *Syntax and Semantics 11: Presupposition*. Eds. C-K Oh and D. Dinneen. New York: Academic Press. Pp. 1-56.
- Ladusaw, W. (1980). Polarity Sensitivity as Inherent Scope Relations. New York: Garland.
- Lewis, D. K. (1979). "Scorekeeping in a Language Game", *J. Phil. Logic* 8: 339-59.
- McCawley, J. (1981). Everything that Linguists Have Always Wanted to Know about Logic but were ashamed to ask. Chicago: Univ. of Chicago Press.
- Popper, K. (1959). The Logic of Scientific Discovery. New York: Basic Books.
- Putnam, H. (1958). "Formalization of the Concept "About"", *Philosophy of Science* 25: 125-130.
- Searle, J. (1969). *Speech Acts*. Cambridge: Cambridge Univ. Press.