Quantifier Domain Restriction as Ellipsis

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Abstract: In this paper I argue that in certain cases quantifier domain restriction is due to a process of ellipsis. I give evidence for this analysis from inverse scope phenomena. I respond to Stanley and Szabó's arguments against a syntactic ellipsis approach. Furthermore, I show how their own semantic proposal is problematic and fails to capture the inverse scope facts.

1. Introduction

Stanley and Szabó (2000: 219) discuss sentences involving quantifiers like (1):

(1) Every bottle is empty.

They put the issue as follows: "Suppose someone utters (1) in a conversation. It is unlikely that what she intends to convey is that every bottle in the universe is empty; she mostl likely intends to convey that every bottle of a restricted class of bottles (say, the bottles in the room where she is, the bottles purchased recently, etc.) is empty. And, if the context is right, she can succeed in communicating such a proposition."

Stanley and Szabó (2000) compare three different approaches to the context sensitivity of (1): a pragmatic approach, a syntactic approach, and a semantic approach. Since they reject the pragmatic approach, I will not discuss it any further. The particular syntactic approach that they consider is the syntactic ellipsis theory of domain restriction (pg. 233). On this theory "…context simply provides an unarticulated portion of the sentence uttered." (pg. 232)

In this paper, I will give some evidence for the syntactic ellipsis theory (see also Sellars 1954 for an ellipsis analysis). Then I will rebut their criticisms of the syntactic ellipsis theory, and point out some problematic issues for their semantic theory.

2. Inverse Scope

Consider the following exchange (modelled on Collins 2014):

(2) A: Does some boy from every school read comic books?
B: No, but some girl does.

On one interpretation, 2B is true if some girl in the universe (or some narrower domain of discourse) reads comic books. However, another natural interpretation is given by the paraphrase in (3):

(3) For every school, there is some girl from that school who reads comic books.

The inverse-linking interpretation in (3) would be the expected interpretation if 2B had the following structure:

(4) No, but some girl <from every school> does <read comic books>

In this structure, there are two instances of ellipsis. The notation <…> indicates non-pronunciation of a string of words. The phrase 'from every school' in 2B is deleted under identity with the phrase 'from every school' in 2A. The phrase 'read comic books' in 2B is deleted under identity with the phrase 'read comic books' in 2A. If the structure of 2B is that given in (4) the inverse scope interpretation in (3) is expected. I take no stand in this article how to define the relevant notion of identity (see also Stanley and Szabó 2000: fn. 9). See Van Craenenbroek and Merchant 2013 for a discussion of the issue of identity.

In fact, inverse scope is widely taken to be criterial of ellipsis. Merchant 2013 highlights four diagnostics for ellipsis, and inverse scope is one of them: "Quantificational elements inside ellipsis sites can take wide scope over elements outside the ellipsis; such inverse scope readings are missing from otherwise similar anaphoric devices." (pg. 539).

Merchant illustrates this claim with the following example:

(5) a. A doctor examined every patient, and then a nurse did. (∃∀, ∀∃)
b. A doctor examined every patient, and then a nurse did it. (∃∀, *∀∃)

Example (5a) shows that either quantifier (the existential *a doctor* or the universal *every patient*) can take wide scope when there is VP deletion. However, if the VP is the anaphoric expression 'did it', then only the existential quantifier can take wide scope. The scope ambiguity of (5a) is identical to the scope ambiguity of non-elliptical sentences such as the following:

(6) A doctor examined every patient and then a nurse examined every patient too. (∃∀, ∀∃)

The fact that (5a) and (6) have the same two interpretations provides support for an analysis where (5a) is underlyingly identical to (6), but where the VP of the second conjunct is phonologically unrealized.

3. Arguments against Ellipsis

According to Stanley and Szabó "The main problem the syntactic ellipsis theory faces is that of undetermination. There are very few cases where there is a single plausible candidate for the role of domain restriction." (pg. 237)

The scenario of their main example is given as follows (pg. 231): "Suppose Lisa went to the store to buy some bottles to give to Max, who wanted to fill them with his home-made beer. Max asks whether the bottles Lisa bought need to be emptied first. In response Lisa utters (1)…". On the syntactic ellipsis theory: "The words 'I just bought' are covertly present in the grammatical sentence uttered by her. The covert expression cannot be heard by anyone who listens to Lisa's utterance; it is a syntactic constituent that has no phonological manifestation." (pg. 233)

Stanley and Szabó do not give any further elaboration of the context of the utterance (1). A possible linguistic context, consistent with their description is given in (7) below:

(7) a. Max: Do the bottles you bought need to be emptied first?
b. Lisa: Every bottle <I bought> is empty.

In (7a) 'bottles' is modified by the relative clause 'you bought'. Therefore 'you bought' is available to serve as the antecedent of a deleted relative clause in (7b). In fact, in this example, there is exactly one plausible linguistically overt antecedent for the deleted relative clause in (7b), and that one plausible antecedent in fact yields the correct interpretation of (7b). Therefore, I assume that in this case, and in the case in (2), there is no problem of underdetermination.

(7b) represents a case of relative clause deletion, which is argued for on independent grounds in Collins 2014. For example, Collins 2014 notes that (8) is ambiguous between two interpretations, just as one would expect if relative clause deletion were possible:

(8) At the party, I saw three boys who I know and one girl.
  a. Interpretation 1: I saw one girl.
  b. Interpretation 2: I saw one girl who I know.

Collins 2014 notes that (8) can be true in a situation where I see 10 boys and 10 girls, but only know three of the boys and one of the girls. If there were no relative clause deletion, (8) would be expected to be false in that situation. Collins gives various arguments for relative clause deletion, including strict/sloppy ambiguities and reconstruction.

In my discussion of (7), I claimed that 'you bought' is the antecedent of the deleted relative clause <I bought>, even though these two constituents are not syntactically identical. Rather, they differ in the pronoun used: second person singular in (7a) and first persons singular in (7b). However, it is well known that standard cases of ellipsis also show these discrepancies in the person features of pronouns:

(9) A: John saw you last night.
  B: No he didn't <see me>.

(10) A: Somebody saw you last night.
  B: I wonder who <saw me>.

Example (9) illustrates VP-Ellipsis, and example (10) illustrates sluicing. In both cases, mismatches of the person features of pronouns are possible, just exactly as I have proposed for the example in (7). Therefore, however the identity condition on deletion is eventually formulated, it must allow such mismatches as found in (7) and (9-10).

I chose the linguistic context in (7) to avoid the issue of underdetermination. The point being that some cases of quantifier domain restriction by ellipsis do not suffer from the undetermination problem. In other words, just because there are "very few cases where there is a single plausible candidate for the role of domain restriction" (Stanley and Szabó 2000: 237), it does not follow that ellipsis never plays a role in domain restriction.

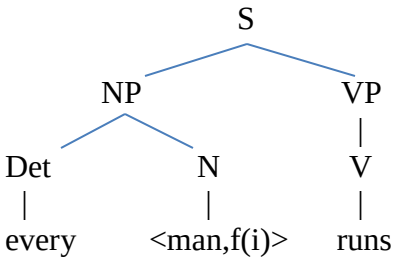
I am not claiming that all cases of quantifier domain restriction are to be handled by ellipsis, although I do not exclude that possibility either. My argument is that in certain cases (such as (7)) there is no argument against an ellipsis approach based on underdetermination, and in other cases (such as (2)) there is an argument for an ellipsis approach based on inverse scope.

4. The Semantic Approach

Stanley and Szabó argue for a semantic approach where "…each common noun (e.g., 'bottle' and 'cat') co-habits a node with a contextual variable." (pg. 251) The representation of (11) is given in (12) (see Stanley 2002a for further discussion and justification of such representations):

(11) Every man runs.

(12)



Stanley and Szabó explain this structure as follows: "The value of 'i' is an object provided by the context, and the value of 'f' is a function provided by the context that maps objects onto quantifier domains." (pg. 251)

Stanley and Szabó make clear that they assume that "quantifier domain variables are syntactically real…" (pg. 252). This poses a problem since it is unclear what syntactic rules form (12). To take a particular example of a syntactic framework (the same points could presumably be made with respect to other syntactic frameworks), in minimalist syntax the structure building operation is Merge. Merge could not form the complex expression f(i), which consists of the function symbol 'f' followed by a left parentheses '(', then the variable symbol 'i' followed by a right parentheses ')'. Nor could Merge form the expression <man, f(i)>. Nor is it clear why <man, f(i)> counts as a noun.

Furthermore, Stanley and Szabó (pg. 253) provide a special semantic rule, specific to constructions of the form <man, f(i)>. None of these issues arise on the ellipsis approach because the syntactic representations postulated on the ellipsis approach (see (4)) are exactly those one gets without ellipsis.

A more serious problem arises when one tries to capture the interpretation given in (3) for 2B. Clearly, a universal quantifier is needed in the syntactic representation of 2B. But representations such as (12) represent quantifier domain restriction in terms of a syntactic variable, and it is unclear how a quantifier could be introduced in this way. So capturing the intended interpretation of 2B in a theory with structures like (12) is a challenge (as it would be for the framework in von Fintel 1994: 31-33, and that of Stanley 2005: 245, fn. 15).

5. Conclusion

Stanley and Szabó (2000: 219) take the strong position that their arguments "…militate against all but our own proposal." They add: "We have argued that both the syntactic ellipsis approach and the pragmatic approach to quantifier domain restriction are incorrect. Thus, quantifier domain restriction must be, in our terminology, a semantic process." (pg. 245) In

particular, they do not say that they have shown that they syntactic ellipsis approach is incorrect except for a small number of cases, where an ellipsis approach would work.

I have proposed that in some cases quantifier domain restriction is analyzed as ellipsis (see also Sellars 1954 for an ellipsis approach, see Stanley 2002b for critical discussion of Sellars). An important issue that remains is how to delineate those cases of quantifier domain restriction are due to ellipsis, and those cases are due to some other mechanism (if any).

Lastly, this paper opens up the possibility that other cases of "implicit content" (see Elbourne forthcoming for a clear overview) and "context dependence" could be analyzed as ellipsis as well.

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