

Manfred Writes Lots of Articles

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One of Manfred Krifka's many contributions is as the chief writer of, and the first author on, the introductory chapter in *The Generic Book* (Krifka *et al*, 1995). The article includes an analysis of generic sentences which makes use of a (normally unspoken) generic operator as a part of their meaning. Now, we all agree that Manfred writes many fine articles, but given the analysis of the generic operator (and some additional plausible assumptions about the syntax/semantics mapping) it turns out we apparently cannot say such things. According to the analysis, that is.

Here's the problem. We are going to assume that quantified noun phrases may have scopal ambiguities when interacting with other logical operators in the same sentence, such as modals, negations, other quantifiers, and the generic operator GEN. The GEN operator, schematically, designates the relation in a tripartite structure, akin to that of frequency adverbs. In the following, GEN can be understood as one value of Q, and where **Restrictor** and **Matrix** represent a partition of the information in the sentence with possibly further pragmatically-introduced conditions present in **Restrictor**:¹

$Q[x_1 \dots x_j;] (\text{Restrictor } [x_1 \dots x_j;]; \exists y_1 \dots y_j \text{ Matrix } [x_1 \dots x_j, y_1 \dots y_j])$

If a GEN operator is present and binds a situational variable *s*, possibly in addition to other individual variables, then it is understood as a habitual sentence, expressing generalizations over occasions rather than individuals of the same kind. The GEN operator is understood as a "default quantifier" with universal force mitigated by its default contents and the nature of the restriction. Where there are no free variables in the Matrix, the existential quantifier is omitted.

With this spare background in mind, let us consider what an analysis of (1) should look like.

1. John eats lots of apples

We assume that "lots of" is a vague indefinite D-quantifier with truth conditions similar or identical to "many", with possible distributive and group readings. Let us assume a serviceable analysis of the GEN operator in (1) and ask if this is the correct analysis to express the most salient and intended reading:

Many *x* [apple(*x*) & GEN[*y*, *s*] (*s* is an eating situation containing *y* & John =*y*); eat(*y*, *x*) in *s*]

This is the wide-scope reading of the quantifier "lots of apples". This is not adequate since it would require that, for many apples, John is in the habit of eating each of them. And since repeated eatings of the same apple are judged strange (once an apple is eaten, it's gone), such a reading, if it is possible, ought to be regarded as odd. This is unaffected by the possibility of quantifying over pluralities of apples, where the same reasoning holds. But, as we have observed, sentences such as (1) and the example in the title of this note, have perfectly natural interpretations.

So, the obvious is to assume that the quantifier takes narrower scope than the GEN operator. Let's see what happens then:

GEN[*y*, *s*] (*s* is an eating situation containing *y* & John =*y*); **Many** *x* [apple(*x*) & eat(*y*, *x*) in *s*]

Now, we no longer require the repeated eatings of the same apple or apples. But this formula raises quite a different question. Now, we can clearly understand that John eats lots of apples, and, further, that he eats

¹ Suppressed for brevity are conditions on variable-binding; the \exists is dispensable in the usual DRT definitions which make use of assignment functions

just one at a time—he need not be a habitual consumer of largish groups of apples on any given occasion. He can eat just one a day, for instance. Let us assume, as seems plausible, that one apple is never “many” or “a lot”, and in fact would be more like “few” or “hardly any”. So, in each eating situation, it is plausible to think that John eats just one apple (at most—in many or most other eating situations he never touches apples), so then if John eats lots of apples, and that’s true, and he eats just one at a time, then he eats few or hardly any apples. Not a good result.

But we are neglecting something here which may be crucial—the nature of the situations **GEN** generalizes over. Now, if we stretch out the situations for a long enough time, say for a few weeks at a time, then in any given situation, so stretched out, maybe 20 or so apples get eaten, albeit just one at a time. And that sounds like a lot (or certainly can be so understood).

The issue with this suggestion is, of course, what determines how long we “stretch out” situations. Even if we agree that John eats lots of apples, if we fail to stretch far enough he’ll end up eating few, and if we agree that John eats few apples, and stretch things out too far, we end up agreeing that he eats many. Something makes us stretch thing out just right, but how to do this without being circular about it is a bit of a challenge.

But there’s more to it than just this. Consider the intuitive truth-conditions for the following:

2.(?) John eats ten apples.

Now, suppose John eats ten apples every two weeks. If we accommodate this stretch of time (“every two weeks”) to the Restrictor, then (2) makes perfect sense. Otherwise, though, if we are not clear on how to do such accommodation, then we are at a bit of a loss as to how to understand such an example (and hence the (?)). That is, if it appears with a numeral, we must accommodate something. But this stands in marked contrast to (1), where such accommodation of course may occur, but does not seem vital to an understanding.

We can make the contrast a little more pointed in the following way: Let us all agree that twenty apples is “a lot” or “many”, and of course that if this is so, then any higher number is likewise truth-conditionally “many” or “a lot” as well. With this in mind, then (3) and (4) would seem to have the same truth-conditions and hence the same meanings:

3. John eats lots of apples.

4. (?) John eats twenty or more apples.

But, I submit, even on our understanding about what constitutes “a lot”, (4) could well be false even with (3) being true, because (3) need not require an accommodation in the restrictor whereas (4) requires it. Thus, we can agree that eating one apple a month is not a lot, but if we accommodate “every two years” into the restrictor of (4), it will be true.

Or, one could claim that this scoping business is all a misanalysis, what counts is not the number of apples eaten, but rather the frequency of apple-eating. Perhaps instead we should exam the relationship between (1), repeated here, and the adverbial expression in (5):

1. John eats a lot of apples.

5. John eats apples a lot.

It could be that the apparent quantifier is functioning as a frequency adverb, and there is no D-quantification over apples at all. We’d need to say, of course, that numerals cannot function in this way, while allowing vague cardinal quantifiers such as “many,” “a few,” “a lot” (but not “a couple of” or “several”) to function adverbially. Maybe this can be done in some principled way, maybe not. And, while it is not entirely clear that this move would provide a solution to the semantic problems here, it would certainly come at a cost of relaxing the syntax/semantics mapping.

Oh, yes, one final thing. In saying that Manfred “writes lots of articles”, we seem to be saying that he completes them. But if we say that Manfred “writes articles a lot”, it sounds like we’re saying he’s busy

with all sorts of writing, but that he need never complete the things—being busy writing is enough. So, maybe the adverbial analysis is not so great after all, since Manfred does indeed write many fine articles, and he most certainly completes them.