# Paul Dekker on the proportion problem

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In section 4.2 of his 'Updates in Dynamic Semantics', Paul Dekker addresses the so-called proportion problem arising in connection with adverbs of quantification. His simple and elegant solution, which avoids quantification over events in any non-trivial sense, consists in admitting as many non-symmetric readings as there are combinations of indefinites, the limiting case being the symmetric reading that corresponds to unselective quantification. In this short note I want to indicate why I think that this cannot be the whole story. Consider the following sentence:

(1) If an environmentalist buys a car, it is usually a pink diesel.

Imagine that (1) is uttered by a car dealer and intended to be a truthful report of his large experience in these matters. Imagine further that, up to the dealer's utterance, five environmentalists have bought one pink diesel each and one bought a red one, and that no other environmentalists have ever bought anything from this dealer. No doubt, (1) is true under any reading whatsoever.

Now suppose that immediately after the dealer's utterance, the chairwoman of the environmentalist party enters the shop and buys one pink diesel plus seven green ones (for future party campaigns, or maybe because she wants to start a collection). Will (1) remain true? I think so, at least under one reading. Now, according to Dekker, there is in fact (exactly) one reading of (1) that would come out true under the circumstances described, viz. the one that results in asymmetrically quantifying over environmentalists. The reading can be paraphrased as:

(2) Most environmentalists who buy a car buy a pink diesel.

The trouble with (2) is that it seems to be too weak: it remains true even if suddenly all environmentalists started to imitate their leader and buy eight cars each, a green one and seven pink ones. I think that under these remarkable circumstances, (1) would not be true under any reading whatsoever. This is perhaps more easily seen by considering the following argument involving a slightly less dramatic situation:

(3) Apart from the chairwoman, every environmentalist buys a pink diesel plus two other cars. Hence, if an environmentalist buys a car, it is usually a pink diesel.

Under reading (2) of (1), (3) should go through. Yet the argument strikes me as incoherent. And I cannot see any pragmatic explanation of why reading (2) should be out in this context: indeed, it seems to me that this reading is likely to be forced by the context, because it would be the only reading of (1) under which the argument would go through, and hence a cooperative hearer should take it for granted that it is the reading intended by the speaker.

Of course, we could attribute another, i.e., fifth reading to (1), say:

(4) Most environmentalists who buy a car buy pink diesels only.

Such a strong, asymmetric reading could doubtlessly be obtained in a straightforward and systematic manner. However, this strategy would not only diminish the elegance of the original framework and, moreover, increase the number of possible readings of relatively simple sentences such as (1), it would still not solve the problem about (3). So how about replacing (2) by (4)? The only systematic way of doing this, I suspect, would amount to a strong interpretation of asymmetric quantification, which is not what we want in the case of the parking meter. We would thus need a feature distinguishing environments that favour a strong interpretation of asymetric quantification from those that favour Dekker's interpretation. But this is just another version of the proportion problem.

Events (minimal situations, occasions etc.) as domains of adverbial quantification do not seem to help either. Given the above scenario, we may safely assume that there are as many transactions (= selling events) as there are environmentalist customers; hence quantifying over the former should amount to quantifying over environmentalists. In this respect, the example is in accordance with Dekker's general attitude. I have no solution to offer, only a speculation about this particular example. Maybe usually is not a quantificational adverb after all. (But then, what is?) Maybe the literal meaning is something like 'in all usual situations' and the trick is that the party head's behaviour is not an instance of a usual situation. Such an interpretation would account for the intuition that the party head's buying so many cars somehow does not count; exceptional behaviour is totally irrelevant to an important generalization as the dealer's (1).