

Respective Answers to Coordinated Questions

As Munn (1999) observes, the fact that examples like (1a) allow for pair-list answers like (1b) appears to violate the identity condition on across-the-board (ATB) extraction, since it cannot be that the same element was extracted from each conjunct.

- (1) a. Where did Mary vacation and Bill decide to live?
- b. Mary vacationed in Paris and Bill decided to live in Toronto.
- c. Which f : Mary vacationed in $f(Mary)$ and Bill decided to live in $f(Bill)$?

To save the identity condition, he concludes that such cases should be analyzed as functional readings along the lines of Chierchia (1993). The schematic semantics for (1a) is given in (1c); the answer in (1b) is then analyzed as a specification of the requested function by enumeration of argument-value pairs, that is, $f(Mary)=Paris$ and $f(Bill)=Toronto$. Because the same function is extracted from each site (albeit with a varying argument index), the ATB identity condition is preserved.

However, there are several anomalies that arise in Munn's analysis. First, it specifically predicts that pair-list answers are not available for examples with a conjoined VP (2a) because only one binder is available, whereas we find the answer in (2b) to be impeccable.

- (2) a. What did Bill eat and drink?
- b. He ate a hamburger and drank a coke.
- c. Which f : Bill ate $f(eat)$ and drank $f(drink)$.

Furthermore, the fact that the arguments to the function are properties (per the schematic semantics shown in (2c)) would require considerably more obscure compositional machinery than that needed for other functional readings.

Second, Munn's non-identity ATB readings are unavailable with unambiguously singular NPs (cf. 1a & 2a); consider the variant of (1) in (3):

- (3) a. In what city did Mary vacation and Bill decide to live?
- b. # Mary vacationed in Paris and Bill decided to live in Toronto.
 (but fine with *cities* in (3a) instead of *city*)

These restrictions are unexpected since they do not arise with other cases that have been successfully analyzed as functional readings; indeed Engdahl's (1980) original example featured a singular NP:

- (4) a. What relative does every Englishman love?
- b. His mother.

In this paper we argue that such readings are not functional but instead *respective* readings of the sort operative in (5a-b), and provide an analysis using the semantic machinery for such readings proposed by Gawron and Kehler (to appear).

- (5) a. Mary vacationed and Bill decided to live in Paris and Toronto (respectively).
 (cf. 1a)
 b. Bill ate and drank a hamburger and a coke (respectively). (cf. 2a)

In G&K's analysis, conjunctions of property-denoting expressions are treated as denoting *sums* on analogy with Link's (1983) treatment of individuals. A *respective operator* (RESP) then distributes members of one sum to members of another with respect to a contextually-determined *sequencing function* (f). The schematic semantics of (1a) is as given in (6):

- (6) which X $\text{Resp}_f(\lambda x[\text{vacation}(\text{Mary})(x)] \sqcap \lambda x[\text{decide-to-live-in}(\text{Bill})(x)])$ (X)

This analysis does not suffer from the aforementioned problems: The possibility of pair-list answers to questions with conjoined VPs and the restriction against singular NPs are predicted by the same machinery that captures these facts for respective readings in general. Furthermore, the analysis predicts the existence of other types of non-identity ATB extraction – e.g. with relative clauses (cf. cases addressed in Sharvit (1999)), right-node raising, and topicalization – that are not amenable to a functional reading analysis. Consider the respective reading of (7), for instance, in which Bob married Susan, John is engaged to Marilyn, and Bill is dating Lucille:

- (7) I finally met Susan, Marilyn, and Lucille yesterday. They are the three sisters that Bob married, John is engaged to, and Bill is dating (respectively).

Although this reading also violates the identity condition on extraction, it is captured by G&K since RESP operators routinely intervene between constituent-based dependencies in the syntax and predicate-argument relations in the semantics (cf. 6). Thus, non-identity ATB extraction in questions like (1a) and (2a), as well as in other constructions such as in (7), are parsimoniously accounted for by independently-necessary semantic machinery.

References

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