## Revisiting conditions on predicate anaphora

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Ivan Sag's contributions to the study of ellipsis cannot be overstated. These contributions began with his 1976 dissertation (Sag 1976a); this dissertation is a monumental work, one that combined new and important empirical observations with a brilliant new theory. In terms of its influence, its only peer in linguistics is Ross 1967; it remains a touchstone for all subsequent work on ellipsis and one which repays each rereading with new insights and directions. It is not merely of historical interest: there are puzzles and observations and analytical suggestions in Sag's dissertation which remain as central to work on ellipsis today as they were when Sag wrote about them.

It is sometimes thought that Sag's dissertation is about verb phrase ellipsis, or, as he suggested it be called and as Miller and Pullum take up, Post-Auxiliary Ellipsis (PAE) in English. But in fact the chapter devoted to PAE (or VP Deletion) is shorter that the one devoted to gapping, and both are required reading for researchers on these topics to this day. Sag prefigured entire areas of research whose importance would not be recognized for decades, including the variable distribution of active/passive mismatches between the antecedent and the elided VP, quantifier and pronominal binding effects, and even the variable power of ellipsis to repair island effects. After noting Ross's (1969) discovery that sluicing appears to repair islands, he shows that Chomsky's (1972) analysis of this fact cannot be correct: Chomsky posited that "clauses containing violations of [island] constraints be marked with "#", which (if left undeleted) doom a sentence to ungrammaticality at the level of surface structure" (Sag 1976:314). To show why such a solution does not work, Sag provides the following pair of examples (p. 314), with his stigmata:

- (1) ?Betsy liked Peter, but Larry, she claimed she didn't  $\emptyset$ . [ $\emptyset$  = like]
- (2) \*Betsy liked the guy who told her about Peter, but Larry, she didn't  $\emptyset$ . [ $\emptyset$  = like the guy who told her about]

Sag's ability to recognize the kinds of examples relevant to establishing a particular syntactic point is legendary, and this pair provides a perfect example of this astonishing capability.

Sag also published a number of papers on ellipsis in the decade that followed, including Sag 1976b and Sag 1979, and, with Jorge Hankamer, Hankamer and Sag 1976 and Sag and Hankamer 1984. These latter papers address an apparent empirical distinction between what the authors dubbed 'surface' and 'deep' anaphora; in Hankamer and Sag 1976 (and in Sag 1976a), 'surface' anaphora is claimed to require a linguistic antecedent, while 'deep' anaphora can be resolved purely "pragmatically". This dichotomy, one of the most cited in the subsequent literature on ellipsis and anaphora, was significantly revised in Sag and Hankamer 1984. In that latter paper, whose importance has been underappreciated, the 'surface' vs. 'deep' distinction is jettisoned in favor of 'ellipsis' vs. 'model-theoretic anaphora'. And it is precisely this dichotomy that Miller and Pullum take up in their paper in this volume. They show, on the basis of a careful empirical investigation, that PAE and the predicate anaphors do it, do this, and do that are subject to a number of overlapping discourse conditions, in particular that focus on the subject or on the auxiliary are subject to differing well-formedness conditions (following in spirit López and Winkler 2000 and Winkler 2005) and that the interactions of these can explain the patterns of endophoic and exophoric uses of PAE and of do it/this/that.

While Miller and Pullum concentrate on these two kinds of predicate anaphora, further work will show whether exophoric uses of clausal ellipsis as in sluicing fall under a similar generalization, or whether the kind of open proposition that the understood material in a sluice is different from the kind of open proposition that is under discussion by Miller and Pullum for PAE. (This may, in turn, reduce to a version of the question of whether it is linguistically necessary to posit a type difference between predicates and open propositions, a contentious area.) It may well be that exophoric sluicing patterns with exophoric subject focus PAE with extraction out of the putative VP:

(3) [Context: A has taken her daughter and son to a kiosk that has two kinds of candy, and told the children they may each choose one piece. The son quickly chooses a piece, but the daughter eyes the candy for longer. ]

A: #I wonder which one.

## (4) [Same context]:

A: #I wonder which one she will.

As Miller and Pullum point out with respect to their (36), this kind of PAE requires a salient open proposition, and "in general, non-linguistic context cannot make an open proposition salient enough".

It seems reasonable to hope that this paper will also stimulate work on other kinds of ellipses, including nominal ellipses of various sorts, gapping, pseudogapping, and null complement anaphora. A number of these phenomena have been claimed to be 'surface' anaphoric, but little detailed corpus work of the kind undertaken by Miller and Pullum has been done, so it remains to be seen whether the larger data set shows the properties that Miller and Pullum identify for PAE and *do it/this/that*. Once the result of such detailed empirical investigation is known, we can then ask whether the fruitful line of analysis proposed by Miller and Pullum will or should extend to these further phenomena.

Although Sag in the intervening decades has made fundamental contributions to every other area of syntax as well, he has not entirely left his roots in ellipsis behind: in Ginzburg and Sag 2000 and Beavers and Sag 2004, he explores a wider range of elliptical constructions and offers, once again, insightful and different analyses, ones that eschew entirely the level of logical form that he used as a centerpiece of his 1976 dissertation. Few researchers can hope to have accomplished as much as Ivan in the area of ellipsis and to have contributed so much in this area; almost none can claim to have done so merely as one of dozens of areas of research.

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