MAXELIDE AND ITS DOMAIN OF APPLICATION

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1. INTRODUCTION: This paper reveals certain false predictions of an otherwise empirically well-motivated condition on ellipsis, Merchant's (2008) MaxElide. Ultimately, we sketch a revision of MaxElide to account for the recalcitrant data, and explore several explanatory benefits of our proposal with potentially interesting implications for our understanding of ellipsis more generally.

2. BACKGROUND: Consider the contrast between Sluicing in (1a) and (*wh*-)extraction from Verb Phrase Ellipsis (VPE) in (1b).

(1) *Sluicing*

a. Sue criticized someone, but I don't know who [$_{IP}$ ~~Sue criticized [who]~~].

VPE

b. *?Sue criticized someone, but I don't know who [$_{IP}$ she did [$_{VP}$ ~~criticize [who]~~]]].

For recent work (see, for example, Fox & Lasnik (2003)), sluicing is not an independent operation but rather a term used to describe (*wh*-)movement followed by ellipsis, where ellipsis is the non-expression of phonological information while maintaining the corresponding semantic information. In (1a), the *wh*-element moved out of its containing IP, followed by ellipsis of the IP. Extraction from ellipsis is thus possible. But, as revealed by Fox & Lasnik (2003), such extraction is restricted. For example, extraction out of the VP followed by VPE is not always allowed, (1b). The question then emerges: Why the contrast between (1)a and (1)b?

Merchant (2008) proposes a novel constraint *MaxElide* to account for the ungrammaticality of (1b). The formal statement of MaxElide is given in (2).[1]

(2) MaxElide (Merchant 2008)

Let XP be an elided constituent containing an A′-trace
Let YP be a possible target for deletion
YP must not properly contain XP (XP ⊂/ YP)

MaxElide predicts that when the relevant licensing conditions are met, sluicing and VPE are in *complementary distribution*, with the higher/larger ellipsis target IP (sluicing), selected over a lower target, VP (VPE). Thus, consider (3).

(3) [… α …] [[*wh*]$_i$ [$_{IP}$ … [$_{VP}$ … t_i …]]]
Source *Target-1* *Target-2*

Assume that α is the correlate of the *wh*-element and that the conditions for the elision of both IP and VP are met. MaxElide, informally stated, requires that the higher target IP (Target-1)

[1] See Takahashi & Fox (2005) for an alternative statement.

is elided and not the lower target VP (Target-2). As Merchant (2008) reveals, this prediction is borne out over a range of cases, (1) a representative illustration.

According to (2), the application of MaxElide is restricted: it applies only in domains containing an A′-bound (e.g. *wh*-) trace. If no A′-bound trace exists in the relevant domain (i.e. the target clause), there is the *option* of elided a higher *or* lower constituent (where standard conditions for ellipsis are met). Thus, both sluicing and VPE are acceptable in (4).

(4) Ben knows that Sue invited Klaus,
a. … but her father doesn't. =sluicing
b. … but her father doesn't know that she did. =VPE (Merchant (2008) #(35))

3. NOT ALL PREDICTIONS BORNE OUT: We report here several crucial cases where the conditions for MaxElide *are* met, but where sluicing and VPE are *not* in the predicted complementary distribution.[2] Instead, *both* are allowed. (5) – (7) are representative examples ((a) = sluicing, (b) = VPE).[3]

(5) a. Sue criticized some of the students, but I don't know exactly which ONES.
and I know exactly which ONES.
b. Sue criticized some of the students, but I don't know exactly which ONES she did.
and I know exactly which ONES she did.

(6) a. I know WHAT Sue will read, and I also know WHEN.
b. I know WHAT Sue will read, and I also know WHEN she will.

(7) a. Tyler will read something, but I don't know WHERE.
b. Tyler will read something, but I don't WHERE he will.

There are also cases considered by Schuyler (2001), though not relative to MaxElide (but cf. Takahashi and Fox (2005)).

(8) a. I don't know which PUPPY you should adopt, but I know which KITTEN
b. ?I don't know which PUPPY you should adopt, but I know which KITTEN you should.

MaxElide incorrectly predicts that only sluicing is allowed in (5) – (8).

3. RESTRICTING THE DOMAIN OF APPLICATION OF MAXELIDE: Despite appropriately located *wh*-traces, (5) – (8) pattern after (4) rather than (1). Why is this? Notice, in the well-formed examples, the *wh*-element is D-linked and stressed, and in the ill-formed cases the *wh*-element is neither D-linked nor stressed. Interestingly, Pesetsky (1987) notes that D-linked *wh*-elements display unique behavior relative to their neutral, non-D-linked counterparts. For example, Pesetsky illustrates that D-linked *wh*- in situ does not display Superiority Effects, while the non-D-linked counterpart does, as in (9).

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[2] See Takahashi & Fox (2005) and Park (2004) for related examples.
[3] See Hartman (2009) for an independent analysis of *wh*-adverbials.

(9) a. [Which man]$_i$ did you persuade e_i to read which book?
cf. who did you persuade to read what?

b. [Which book]$_I$ did you persuade which man to read e_i? (No Superiority)
cf. ??What did you persuade who(m) to read?

Pesetsky also notes that *wh*-phrases such as *who* and *what*, while generally non-D-linked, can be given a D-linked interpretation (under the right contextual conditions) "particularly if all the *wh*-phrases are given extremely heavy stress" (see Pesetsky (1987) p. 108-109). Thus, Superiority is eliminated in (10).

(10) I know what just about everybody was asked to do,
a. … but WHAT did WHO (actually) do? (No Superiority)
b. … but WHAT DID who ACTUALLY do? (cf. Pesetsky (1987) #(35))

In a sense, then, for Pesetsky, D-linked *wh*-in-situ does not leave a "true" *wh*-trace (under LF movement). There is something "special" about the syntactic behavior of D-linked *wh*-phrases (beyond their semantic properties, which, as well-known, are different than "regular" *wh*-phrases). Suppose we capitalize on Pestesky's insight by formally implementing the idea that a non-D-linked/non-stressed *wh*-trace in the narrow syntax is a true (non-restricted) variable, and that MaxElide applies only when such a true variable is present. Under this view, D-linked traces form a natural class (not "true" variables), as do unrestricted ("true") variables. Thus, the domain of application is more restricted than assumed in Merchant (2008): it applies only in domains that contain (what would count as) a "true" variable.

3. CONSEQUENCES AND COMPARISIONS: Fox & Lasnik (2003) provides an alternative account of the core cases in (5) – (8). For F&L, parallelism is an inviolable constraint (source = target). If there is no successive cyclic movement in the source, there can be none in the target. To account for *wh*-movement in the core cases, F&L propose that the *wh*-phrase moves in one step from its initial Merge site to its landing site. However, one-step *wh*-movement violates locality constraints. To keep track of the locality constraints, F&L (tentatively) adopt Chomsky's (1972) "*" notion whereby the island category is marked with *, and the offending island can be "repaired" by ellipsis. If ellipsis fails to delete the *, the expression is rendered unacceptable; thus the contrast in (11):

(11) a. Bob criticized someone but I can't remember who [~~$_{IP}$* Bob criticized [who]~~].
b. *Bob criticized someone but I can't remember who [$_{IP}$* he did [$_{VP}$ ~~criticized [who~~]]]

Clearly, MaxElide-revised and F&L overlap in their empirical coverage, and maintaining both analyses would be redundant. Are there any cases that are *unique* to MaxElide? Potential candidates include ACD constructions (12a) and comparatives (12b), as well as (13) – (14). In these cases, F&L undergenerate while MaxElide-revised yields the correct results.

(12) a. I met every linguist who you did.
b. You liked some foods more than Tom did.

(13) What did Tobias read for this class?
   a. I don't know.
   b. ?I don't know what.
   c. *?I don't know what he did.

(14) Bill criticized some of the students, but I don't know which ONES he did.

Does MaxElide (revised) subsume the F&L analysis? Not entirely, given that MaxElide undergenerates in (15) while F&L get the right result.

(15) Sluice (repairs island)
   a. They hired someone who speaks a Balkan language but I don't remember which [~~language they hired someone who speaks~~]

VPE (does not repair island, yet MaxElide is satisfied)
   b. *They DID hire someone who speaks a Balkan language but I don't remember what kind of language they DIDN'T [~~hire someone who speaks what kind of language~~]

To account for (16b), Merchant (2008) employs a (form of a) crucial component of the F&L analysis, namely the island marking * device, (16). Thus, MaxElide-revised equipped with an island marking device yields the necessary data coverage.

(16) $[\ldots \alpha \ldots] \quad [[wh]_i [_{IP/VP} \ldots \quad [_{XP}* \ \ldots t_i \ldots]]]$ (sluice = IP, VPE = VP)

Overall, we restrict the application of MaxElide, in what we argue to be a natural way, with results that maintain all the advantages of MaxElide (as presented by Merchant), while simultaneously extending its empirical coverage.

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