Diagnosing ellipsis

Jason Merchant[*]
University of Chicago

March 2010

1   The phenomena

What is ellipsis? St. Isidore (in his *Etymologiarum, Liber I 'De grammatica'*, ch. XXXIV 'De Vitiis', sec. 10) tells us that "*Eclipsis* est defectus dictionis, in quo necessaria verba desunt" ('Ellipsis is an incompletion of speech, in which necessary words are missing'). The spirit of Isidore continues to inform modern linguistic thinking on the topic, though, as I will illustrate below, his definition fits also a number of phenomena that we would no longer wish to label ellipsis.

Rather than provide a general overview of elliptical phenomena (there are surveys in Lappin 1996, Johnson 2001, Winkler 2005, Merchant 2009, and van Craenenbroeck 2010), I concentrate here on some of the diagnostics for ellipsis that have been proposed and used over the years, and indicate which of these stand the test of time, and which not.

2 Diagnostics

2.1 Isidore's diagnostic

St. Isidore's definition provides the *sine qua non* for a diagnosis of ellipsis: something is missing that otherwise must be present. This is easiest to see with respect to elements that are strictly subcategorized for. In narrow ellipsis studies, the elements D (determiner), C (complementizer), and T (tense) are taken to obligatorily select for NP, TP, and VP complements, respectively. When these complements are missing, we have an instance of what Chao 1987 called 'headed' (H+) ellipses:

(1) a. **NP-ellipsis/'N″'-ellipsis**
         Abby can play five instruments, and Ben can play six.
     b. **TP-ellipsis/sluicing**
         Abby can play something, but I don't know what.
     c. **VP-ellipsis**
         Abby can play the guitar and Ben can, too.

But Isidore's definition, if it were taken as a implying a biconditional, would be too strong, as there are a number of instances where we find a complement gone missing that are not elliptical. This is the case with the missing complements to a number of predicates in English, such as the implicit indefinite semantic objects of *eat, bake, hunt, fight, serve the guests, flirt, shoot*, the implicit definite objects of *notice, understand, see, know, agree, refuse, try*, the implicit reflexive objects of *shave, bathe, scratch*, and the implicit reciprocal objects of *kiss, screw, divorce, get married, break up, argue*. Such missing elements are characterized as 'implicit arguments' (see Merchant 2007 and Gillon 2009 for recent reviews in this domain); the 'implicit definite object'-taking predicates are a special subclass known as Null Complement Anaphora (NCA) predicates: what distinguishes them from the others is that they can take clausal complements, in addition to (or instead of) nominal and prepositional complements.

It is also sometimes claimed that other null arguments (whether restricted to subject positions as in classical *pro*-drop languages like Italian, Spanish, and Greek, permitted in a variety of positions but subject to grammatical constraints, as in Russian, Finnish, and Hebrew, or permitted in all verbal argument positions, as in Chinese, Japanese, Korean, and Vietnamese) are due to ellipsis; the evidence that such null arguments involve ellipsis is complex, however (see Giannakidou and Merchant 1997, Hoji 1998, Panagiotidis 2003, Tomioka 2003 for a variety of perspectives), and we will therefore not consider them further here.

2.2   Extraction

Ellipsis sites, containing as they do on many accounts an otherwise regular syntax (see especially van Craenenbroeck and Lipták 2010, Baltin 2007, and Winkler 2010 for detailed and insightful discussion of extraction possibilities from ellipsis sites), can be extracted out of. All types of extraction—A$'$-, A-, and X^0-extraction—are attested out of ellipsis sites.

For A$'$-extraction, this is seen in sluicing, but can also be found in VP-ellipsis (especially in relative clauses, and prototypically in antecedent-contained deletion (ACD) structures). In questions, extraction of a wh-phrase from a VP-ellipsis site is subject to a number of irrelevant constraints (see Merchant 2008), but when these are satisfied, extraction is possible, as seen in (2a). Such VP-ellipsis forms a minimal pair with a synonymous case of Null Complement Anaphora, as in (2b).

(2)   a.   Which films did he refuse to see, and which films did he agree to?

   b.   *Which films did he refuse to see, and which films did he agree?

This contrast is easily understood if the missing VP in (2a) is structurally present, and hosts the origin site of the unbounded dependency headed by *which films*: $< [_{VP}$ see $t] >$. In the NCA case in (2b), the understood material (which would correspond to material like *to see* t if the non-NCA alternant were chosen) is not syntactically present, and thus cannot host the required gap of the dependency.[1]

What are often analyzed as A-extraction dependencies can also go into ellipsis sites, both in passives and in raising constructions:

(3)   a.   Ralph was arrested after his brother was.

   b.   Abby was likely to vote for gay rights, and her brother was, too.

Head movement out of ellipsis sites is found in V-stranding VP-ellipsis, present in languages with V-raising and VP-ellipsis, such as Irish, Hebrew, and Portuguese (see McCloskey 1991, Goldberg 2005, and Santos 2009).

2.3   Agreement

---

[1] Aelbrecht 2010 has cogently argued, however, that the lack of extraction may not by itself argue against a diagnosis as ellipsis, based on data from modal complement anaphora in Dutch (and other languages): as she points out (see similar logic in van Craenenbroeck 2008), there may be other reasons blocking extraction from an ellipsis site, independent of the ellipsis.

Elements inside ellipsis sites can trigger agreement on items outside the site, as in the following examples:

(4) a. First, there were bananas available, and then there weren't.
     b. First, there were going to be bananas available, and then there weren't.

No such effects are found from 'understood' elements inside NCA, pronominals, or other anaphoric devices (such as clausal *it*, deictic elements, *do so, do it, do the same thing* or the like).

2.4 Inverse scope

Quantificational elements inside ellipsis sites can take wide scope over elements outside the ellipsis; such inverse scope readings are missing from otherwise similar anaphoric devices:

(5) a. A doctor examined every patient, and then a nurse did. ($\exists\forall, \forall\exists$)
     b. A doctor examined every patient, and then a nurse did it. ($\exists\forall, *\forall\exists$)

3 Non-diagnostics

It is important to distinguish diagnostics for ellipsis from those tests or phenomena which we now believe are not particularly relevant to deciding the nature of ellispis, primarily due to the fact that they do not pick out ellipses as a class, generally because the phenomena they are sensitive to are in fact found in a wider range of cases (of which ellipsis may be merely a limiting case).

3.1 Pragmatic control

Ellipses can, under limited and not well understood conditions, be pragmatically controlled (that is, have no linguistic antecedent):

(6) Yes, we can! Yes, we did!

There is a lively debate about such examples, but from their mere existence we should not conclude that ellipsis is not involved (see Pullum 2000 and Merchant 2004 for recent contributions and references in this debate, though they do not reach the same conclusion).

3.2 Sloppy identity

The presence of sloppy identity readings is not a diagnostic for ellipsis. These are found in a number of constructions where ellipsis cannot be implicated, and are even found 'inside' pronouns, as in the famous paycheck examples:

(7) a. Ralph ate his ice-cream with a spoon, and Seymour did the same thing.
   b. Harvey stubbed his toe on the doorstop, and it happened to Max, too.
   c. Undergraduates can be covered under their parents' health plans if desired; { likewise for graduate students. | that goes for grad students, too. }
   d. A professor who pays down her mortgage with her paycheck is wiser than one who gambles it away in online poker.

Researchers from a variety of traditions agree on this assessment (see Hoji 1998, Culicover and Jackendoff 2005, Frazier 2010).

3.3 Split antecedents

Webber 1978 showed that, like pronouns, ellipses can have split antecedents:

(8) Wendy is eager to sail around the world and Bruce is eager to climb Mt. Kilimanjaro, but neither of them can, because money is too tight.

She argued from this fact that ellipsis could not involve unpronounced syntax (a conclusion endorsed by Hardt 1993, 1999, Sag 2006, Culicover and Jackendoff 2005, among others), but others have demurred (Fiengo and May 1994 and Elbourne 2008 give accounts of split antecedents for VP-ellipsis that are consistent with unpronounced syntax; Merchant 2004's 'limited ellipsis' *do it* might also be of use here, especially in accounting for the fact that it is much more difficult to find split antecedents for sluicing[2]).

---

[2]Elbourne shows (2001:195 (19)) that split antecedents can easily be found for NP-ellipsis as well. He also provides one example in the last footnote of the paper (on p. 218, fn 18: *Either John called someone or Mary called someone, but I don't know who*), which he describes as having 'the most obvious reading' of '... but I don't know who called someone', but claims that it 'also seems to have the reading "... but I don't know who was called by whichever one of them is was." ' I will have to leave the investigation of the relative accessibility of this reading to further research, but if others confirm Elbourne's judgment, we have, as he points out, evidence for extending his theory to sluicing as well.

3.4 Missing Antecedent Phenomena

Grinder and Postal 1971 point out that indefinites inside ellipsis sites can provide antecedents ('missing' from the surface) to pronouns, as in (9a). Such examples are claimed to contrast with VP-anaphors like *do it* in this (from Bresnan 1971:591 (9)), as seen in the example in (9b), with Bresnan's judgment indicated.

(9) a. My uncle didn't buy anything for Christmas, but my aunt did, and it was bright red.

   b. *My uncle didn't buy anything for Christmas, but my aunt did it for him, and it was bright red.

However, as Hardt 1993 points out, the VP anaphor *do so* can give rise to 'missing antecedent' effects:

(10) Jerry wouldn't read a book by Babel, but Meryl has done so and it was pretty good.

Johnson 2001 notes the conclusion that Hardt and subsequent researchers have drawn from this fact: "Moreover, as Hardt points out, the ability of *do so* to license the Missing Antecedent effect suggests that our earlier account of this effect by way of a derivational interpretation of ellipsis is in danger." I concur (see Frazier 2010 for further discussion as well).

4 Conclusion

The weight that any individual researcher will give to a particular result or diagnostic will differ along any number of dimensions. In this brief overview, I've intended merely to mention some of the main diagnostics that have been used in the literature on ellipsis, and provide a few (though far from adequate or comprehensive) pointers to the more detailed literature on these questions. For reasons of space, I've intolerably concentrated on English, though the world's other languages are rife with elliptical phenomena of great interest, and continuing investigation of these is something we absolutely should.

References

Aelbrecht, Lobke. 2010. *The syntactic licensing of ellipsis*. Amsterdam: John Benjamins.

Baltin, Mark. 2007. Deletion vs. pro-forms: A false dichotomy? Ms., New York University.

Bresnan, Joan. 1971. Note on the notion 'identity of sense anaphora'. *Linguistic Inquiry* 2:589–597.

Chao, Wynn. 1987. On ellipsis. Doctoral Dissertation, University of Massachusetts, Amherst.

van Craenenbroeck, Jeroen. 2008. What does silence look like? On the unpronounced syntax of sluicing. Handout, talk presented at the University of Chicago.

van Craenenbroeck, Jeroen. 2010. *The syntax of ellipsis: Evidence from Dutch dialects*. New York, NY: Oxford University Press.

van Craenenbroeck, Jeroen, and Anikó Lipták. 2010. What sluicing can do, what it can't and in which language: On the cross-linguistic syntax of ellipsis. In *Diagnosing syntax*, ed. Lisa L.-S. Cheng and Norbert Corver, to appear. Oxford: Oxford University Press.

Culicover, Peter W., and Ray Jackendoff. 2005. *Simpler Syntax*. Oxford: Oxford University Press.

Elbourne, Paul. 2008. Ellipsis sites as definite descriptions. *Linguistic Inquiry* 39:191–220.

Fiengo, Robert, and Robert May. 1994. *Indices and identity*. Cambridge, Massachusetts: MIT Press.

Frazier, Lyn. 2010. A Recycling approach to processing ellipsis. In *Diagnosing syntax*, ed. Lisa L.-S. Cheng and Norbert Corver, to appear. Oxford: Oxford University Press.

Giannakidou, Anastasia, and Jason Merchant. 1997. On the interpretation of null indefinite objects in greek. *Studies in Greek Linguistics* 18:141–154.

Gillon, Brendan. 2009. Model theoretic semantics for implicit arguments in English. Ms., McGill University.

Goldberg, Lotus Madelyn. 2005. Verb-stranding VP ellipsis: A cross-linguistic study. Doctoral Dissertation, McGill University, Montreal.

Grinder, John, and Paul M. Postal. 1971. Missing antecedents. *Linguistic Inquiry* 2:269–312.

Hardt, Dan. 1993. Verb phrase ellipsis: Form, meaning and processing. Doctoral Dissertation, University of Pennsylvania.

Hardt, Daniel. 1999. Dynamic interpretation of verb phrase ellipsis. *Linguistics and Philosophy* 22:185–219.

Hoji, Hajime. 1998. Null object and sloppy identity in Japanese. *Linguistic Inquiry* 29:127–152.

Johnson, Kyle. 2001. What VP ellipsis can do, and what it can't, but not why. In *The handbook of contemporary syntactic theory*, ed. Mark Baltin and Chris Collins, 439–479. Oxford: Blackwell Publishers.

Lappin, Shalom. 1996. The interpretation of ellipsis. In *The handbook of contemporary semantic theory*, ed. Shalom Lappin, 145–175. Oxford: Blackwell.

McCloskey, James. 1991. Clause structure, ellipsis and proper government in Irish. *Lingua* 85:259–302.

Merchant, Jason. 2004. Fragments and ellipsis. *Linguistics and Philosophy* 27:661–738.

Merchant, Jason. 2007. The syntactic representation of implicit arguments? Paper presented at the workshop on 'funny' indefinites, Zentrum für Allgemeine Sprachwissenschaft, Berlin, July 2007.

Merchant, Jason. 2008. An asymmetry in voice mismatches in VP-ellipsis and pseudogapping. *Linguistic Inquiry* 39:169–179.

Merchant, Jason. 2009. Ellipsis. In *Syntax: An international handbook, 2nd edition (to appear)*, ed. Artemis Alexiadou and Tibor Kiss. Mouton de Gruyter.

Panagiotidis, Phoevos. 2003. Empty nouns. *Natural Language and Linguistic Theory* 12:381–432.

Pullum, Geoffrey K. 2000. Hankamer was! In *Jorge Hankamer WebFest*, ed. Sandra Chung, James McCloskey, and Nathan Sanders. http://ling.ucsc.edu/Jorge/: UCSC Linguistics Department.

Sag, Ivan. 2006. What's LF got to do with it? Presentation at organized session on ellipsis, annual meeting of the Linguistic Society of America, Albuquerque, New Mexico.

Santos, Ana Lúcia. 2009. *Minimal answers: Ellipsis, syntax, and discourse in the acquisition of European Portuguese*. Amsterdam: John Benjamins.

Tomioka, Satoshi. 2003. The semantics of Japanese null pronouns and its cross-linguistic implications. In *The interfaces: Deriving and interpreting omitted structures*, ed. Kerstin Schwabe and Susanne Winkler. John Benjamins.

Webber, Bonnie. 1978. A formal approach to discourse anaphora. Doctoral Dissertation, Harvard University.

Winkler, Susanne. 2005. *Ellipsis and focus in generative grammar*. Berlin: Mouton de Gruyter.

Winkler, Susanne. 2010. Syntactic diagnostics for island sensitivity of contrastive focus in ellipsis. In *Diagnosing syntax*, ed. Lisa L.-S. Cheng and Norbert Corver, to appear. Oxford: Oxford University Press.