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## An Embarrassment of Riches? Cutting Up the Elliptical Pie

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Kempson, Cann, Gregoromichelaki, and Chatzikiyriakidis (henceforth KCGC) offer us a plethora of wonderful phenomena which they argue can be best modeled using a dynamic syntax that has modular resources, addressing a range of what appear to be elliptical data. The authors also show that the suggestions that were made in Merchant (2004) regarding “correctives and multi-speaker cooperative sentence construction and certain confirmatory, clarificational, and elaborative fragments” (p. 709) fail to cover the full range of data. Their paper represents a laudatory step toward building a system of syntax that is fully responsive to questions of incremental parsing, an issue highlighted by Phillips and Parker (2014), for example.

Here I will concentrate particularly on their proposals about the nature of fragments and ellipsis. KCGC discuss the following kinds of data in this domain, which I will organize into five groups (the numbers refer to the example numbers in the KCGC paper).

- (1) Bare fragments:
  - a. fragment predicates (13)
  - b. fragment questions (9A)
  
- (2) Ellipsis of constituents:
  - a. fragment answers (22)
  - b. VP-ellipsis/stripping (23, 79) (including exophoric ones, 77)
  - c. predicate ellipsis (76)
  - d. negative stripping in Greek (25)
  
- (3) Script-based fragments:
  - a. context-based script verb elisions (26, 27)
  - b. short directives (10) or fragment instructions (9B)

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- (4) Labels: names/labels (11, 12)
- (5) Phonologically sensitive deletions: left-edge deletions (14,15)

KCGC imply that other grammatical approaches would treat all of these phenomena uniformly as involving ellipsis, but this certainly is not a correct assumption about these facts in particular: Merchant (2004, 2010) explicitly argue against such a uniformity assumption with respect to these classes, and KCGC offer no arguments that the prior scholarship has conflated them.

The classes in (1)–(5) may seem like already quite a lot of phenomena to deal with,<sup>1</sup> but these do not represent a complete list either of things that have been addressed in the literature as non-elliptical fragments (see the longer list Merchant 2004: 731–732) or as ellipsis per se (see the overviews in van Craenenbroeck and Merchant 2013 and Merchant to appear). I will not try for survey all of those here, but single out below only one kind—sluicing—and the challenges it might pose for KCGC’s system.

KCGC present two main analytical tacks for handling this range of data: the introduction of metavariables, and their LINK operator. Metavariables are placeholders for procedures that help a word or phrase denote by ‘triggering selection of their construal from context’.

The first tack is applied to examples like their 13, a fragment predicate:

- (6) A (showing a jug): Purchased in Germany.

This example seems to have been modeled on the one in Merchant 2004: (3) (and closely resembles Stainton’s ‘recommended for ages 6 and older’ example; see Merchant 2010: (13) for a collection from Stainton 2006).

- (7) Abby and Ben are arguing about the origin of products in a new store on their block, with Ben maintaining that the store carries only German products. To settle their debate, they walk into the store together. Ben picks up a lamp at random, upends it, examines the label (which reads *Lampenwelt GmbH*, Stuttgart), holds the lamp out towards Abby, and proudly proclaims to her: “From Germany! See, I told you!”

At issue is “whether Stainton is right when he writes that ‘what is asserted... is fully propositional; but what is metaphysically determined by slot-filling and

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<sup>1</sup> For reasons of space, I will not address the phonologically sensitive deletions here, but see Weir (2014) and Bruening (2015) for recent approaches.

disambiguated expression-meaning is something less than propositional' (2006: 228) and that ordinary words and phrases used in isolation 'don't have "slots" that yield something propositional when they are used in context' (2006: 158). Here I think that there is a reasonable reading of slot-filling under which the large majority of examples adduced can be handled as propositional after all" (Merchant 2010: 36).

As I showed in Merchant 2010, once we accept that predicates like *from Germany* are type  $\langle e, t \rangle$  (as are passive predicates like that in (6)) and can be represented as in (8),

$$(8) \quad \lambda x_2[\textit{from.Germany}(x_2)]$$

then all that is required is that a grammatically available rule of variable introduction, such as that given in (9). Once such a rule operates on (8), it will generate an output, after  $\beta$ -reduction, which has a free variable in a propositional formula, given in (10).

$$(9) \quad \text{Type-shifting rule (Free variable introduction):}$$

Let  $(\alpha\beta) \in \text{TERM}_a$  if  $\alpha \in \text{TERM}_{\langle a, b \rangle}$  and  $\beta \in \text{VAR}_b$

$$(10) \quad \textit{from.Germany}(x_3)$$

Any method for evaluating such formulae relative to a context (whether with an assignment function or not) will then yield something that is appropriate as the content of an assertion. Such examples do not motivate the acceptance of either Stainton's 'moderate contextualism', nor, as far as I can see, require that we conceive of syntax in anything but traditional ways: what is uttered in (8) is just a PP—no hidden, unpronounced, or elliptical structure is needed. It seems that what Stainton and I called 'semantic ellipsis', and which I implemented with a single type-shifting rule, can handle at least part of the data that KCGC use metavariables for.

KCGC also use metavariables to handle VP-ellipsis, introducing a variable of predicate type. This leads us to consider how they might extend this idea to other well-studied ellipsis types, such as sluicing (Ross 1969; Merchant 2001). Sluicing involves the ellipsis of the sentential part of a constituent question, leaving (usually) only the *wh*-phrase behind:

- (11) a. Abby was clearly addicted. Ben wondered to what.  
 b. Abby was clearly angry. Ben wondered at what.  
 C. Abby was clearly dependent. Ben wondered on what.

In (11), we have a regular question-embedding predicate, *wonder*, which takes an interrogative CP as its syntactic complement; this CP, however, consists of mostly unpronounced material: only the PP *to what* in the specifier of the CP survives deletion and is pronounced. In discussing VP-ellipsis in English, KCGC claim that English auxiliaries have ‘intrinsic anaphoricity’ (footnote 11) and are associated with their place-holding metavariables. Extending this to sluicing would mean adding a place-holding metavariable for a type of clause that is missing whatever happens to be in specCP or its equivalent (a PP, an AP, an NP: the full range of categories that can form *wh*-questions in the languages of the world).

This kind of example is similarly problematic for the system of Jacobson 2016, which shares with KCGC a commitment to eschewing unpronounced structures. The problem is simple: the preposition that is selected (*to*, *at*, *on*) is semantically vacuous, and there is no corresponding extracted material to match the PP in the sluice. A similar problem, which she acknowledges, affects the pair in (12):

- (12) Q: Which kids was Abby most angry at?  
 A: At the ones who keep stealing her mail.

While a movement-based deletion theory of ellipsis can make use of the usual mechanisms for handling the syntax/semantics mismatches that go under the rubric of reconstruction (here, the preposition *at* in the answer reconstructs), theories like that of Jacobson 2016 or KCGC predict that such pairs will be ill-formed.

The data in (3) from what I have called ‘scripts’ (Merchant 2004: 731 ff.; Merchant 2010: sec. 5) clearly requires a different tack: in such cases, like (13), we find a structural case (here accusative) without a structural case assigner. KCGC call this ‘constructive case’, and argue that such cases “encode[...] the precise hierarchical position within the emergent predicate-argument structure”. (One obvious difficulty comes from purely structural and not semantically informative cases, such as the dative on German objects of verbs like *helfen* ‘help’, or case alternations like those found in causatives, *ga-no* conversion in Japanese, etc.)

- (13) [phone rings in Greece; I answer it in the conventional manner in Greek, saying ‘Ne?’ (‘Yes?’). Caller says:]  
 tin kiria Giannakidou, parakalo?  
*the.ACC Ms. Giannakidou please*  
 ‘Ms. Giannakidou, please?’

This approach seems very much the right one to me, only that it must be supplemented by a notion of implicit antecedent linguistic context. Like the example of clarification KCGC discuss in their (27), there is also an ‘indexically-recovered speech-act function’ of requesting here, but the case-marking and bare NP are not crucial to that identification. Instead, the accusative case marking on the NP comes from an inferred script used by the speaker: something like ‘I would like (to speak to) X, please’, or in Greek ‘Tha ithela X, parakalo’, where the verb *ithela* ‘want’ assigns the accusative case. On the basis of this implied script, we generate only the NP in the accusative. Its accusative case is not assigned by a linguistically present verb, but is rather licensed by that verb in the implied script. What makes this example interesting is the fact that the script is merely implied, not given or memorized explicitly prior to utterance, where subparts of the included phrases or sentences could be suppressed at will.

Compare the following dialog:

(14) A: I’m trying to memorize Rilke’s first Duino Elegy: can you help me?

B: Sure.

A: OK, here goes: ... Und gesetzt selbst, es... uh, what are the next two  
*and given even it*  
 words?

B: nähme                    einer  
*take.3s.KonjII someone.NOM* ‘someone were to clasp’

A: mich   plötzlich   ans   Herz.  
*me.ACC suddenly on.the heart* ‘me suddenly to his heart’

B’s utterance of the next two words from the poem do not require that B know the whole line or even to know German; the verb and the subject in this sentence do not form a constituent, but reciting lines or parts of lines from a script does not require them to: only that the relevant words be known, given, or inferrable in the context. That parts of such contexts can be felicitously omitted is one of the important observations that KCGC make. As Kobele 2015 points out, the fact that speakers can collaborate, or interrupt each other, while taking over the sentence, may require a broader notion of what we can do with our grammars, but it does not vitiate the notion of competence per se. And it is also important to note that what I am calling ‘collaboration’ here does not entail cooperation: as KCGC point out, the speaker may neither want to give the turn to the interrupter, nor even agree with anything the

interrupter provides as a suggestion continuation of the utterance: there are unwilling collaborators.

Cases like KCGC's (60), repeated here in (15), illustrate how their link operator can be used.

(15) John came back. Late last night. Extremely tired and frustrated.

Instead of positing full sentential structures for the second and third strings of words, subject to some kind of ellipsis, they show that their LINK operator can conjoin the two later phrases with the different parts of the first one: the event term, and the individual term *John*. It seems that the same analytical options are available to a system that employs a type-shifting rule like (9), however: if *late last night* is a predicate of events, then (9) can introduce a variable over events, yielding a formula equivalent to KCGC's (61): *Late-last-night'(e)*. This can form part of a connected discourse using whatever means we need for simple propositional conjunction (see Büring 2003). *Mutatis mutandis* for the third clause, which will have the same analysis we saw above for (7).

Finally, there are the names in (4). As discussed in Merchant (2004: 732) and Merchant (2010: sec.3.2.1), there is no reason to posit syntactic ellipsis for names or titles used as labels. Rather, we need to generate these phrases using the regular rules of syntax, assign them the most unmarked case in the language, and associate their use with a labeling speech act. No evidence exists that these involve sentential structure.

Similar considerations apply to KCGC's data in (24), reproduced here:

(16) A: Er, the doctor  
 B: Chorlton?  
 A: Chorlton, mhm, he examined me ... [BNC]

It's not clear to me where the ellipsis would be in such an example. Instead, it seems that B is simply trying to identify the doctor mentioned by A; this could be handled by a link or by using the label construction (as the content of a question) or with (9). There is no reason known to me to believe that such identifications or clarifications are elliptical for anything, or hide any larger structure; nor, to my knowledge, has an ellipsis analysis for these ever been adduced. More challenging would be similar examples in languages with overt case marking: these would have the hallmarks of Ginzburg's (2001) 'clarificational ellipsis': the content will make reference to the relevant part of the structured utterance invariant (which by design includes local features like case and category).

The successes that KCGC achieve are built in part on the flexibility of the system. But it is precisely this flexibility that makes it difficult to see how the system would rule out the kinds of elliptical switches that are known to be impossible. There is not a single ungrammatical or unacceptable ellipsis example analyzed in the paper. For example, how would this system handle the uneven distribution of voice mismatches under VP-ellipsis (where they are allowed), as opposed to sluicing (where they are disallowed; see Kim et al. 2011; Merchant 2013; and Kobele 2015)? How would they rule out the code-switching mismatches that González-Vilbazo and Ramos (2012) documented (see Merchant 2015 for additional discussion)? How would the system handle the fact that locality (e. g., islands) of *wh*-movement is enforced in some kinds of sluicing and VP-ellipsis, but not in other kinds of sluicing (see Merchant 2008)? How would it block P-stranding in Greek and other languages in sluicing and fragment answers (Merchant 2001)?

In sum, this is a remarkable proposal, similar in some respects to the dialog systems proposed by Schlangen (2003) and Ginzburg (2012), and helps us turn our attention to a kind of connectivity that has received little prior attention. These proposals are sure to help us refine the kinds of phenomena that deserve to be analyzed as ellipsis and those that do not.

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