

## ELLIPTICAL CONSTRUCTIONS AND UNDERLYING CLEFTS

Joanna Nykiel (University of Silesia/Stanford University)

1 **The problem.** The view that unpronounced material exists in the syntax of elliptical constructions has been motivated by the presence of connectivity effects (Merchant 2001). These effects are due to similarities between the syntactic behavior of ellipsis remnants and that of corresponding non-elliptical clauses. Thus, if connectivity effects arise, they provide evidence for full structure underlying ellipsis remnants. Merchant (2001) argues that the pattern of preposition-omission under sluicing correlates with the possibility of preposition stranding under *wh*-movement in non-elliptical clauses. The argument is that a language (like English) that allows preposition stranding under *wh*-movement (1a) allows *wh*-remnants without prepositions under sluicing (1b). In contrast, a language (like Polish) without preposition stranding under *wh*-movement (2a) requires PP remnants under sluicing (2b).

- (1) a. Who was the Body Shop bought out by?  
 b. I knew the Body Shop was bought out **by someone**, but I didn't know **who**.
- (2) a. \*Kogo został wykupiony Body Shop przez?  
 who.ACC was bought out Body Shop by  
 b. \*Wiedziałam, że Body Shop został wykupiony **przez kogoś**, ale nie  
 I.knew that Body Shop was bought out by someone.ACC but not  
 wiedziałam **kogo**.  
 I.knew who.ACC

The generalization that only preposition-stranding languages tolerate *wh*-remnants without prepositions under sluicing, if correct, motivates the claim that a sluiced *wh*-phrase has underlying syntactic structure equivalent to that of an interrogative clause. Counterexamples to this generalization, which abound in non-preposition-stranding languages (Vicente 2006, 2008, Szczegielniak 2008, Stjepanović 2008, Fortin 2007, Rodrigues et al. 2009, Wei 2011), are often explained away by appeal to underlying cleft structures allowing preposition stranding. This paper first questions one such proposal by Szczegielniak (2008), which argues that Polish uses the cleft strategy. I next show that preposition-omission is gradient and available in Polish not only under sluicing, but also Bare Argument Ellipsis (BAE) and gapping. These data speak against one strand of evidence for structural accounts of ellipsis

2 **Clefts.** Szczegielniak (2008) analyzes sluicing remnants without prepositions as arising through deletion of underlying cleft interrogatives with *which*-NP phrases, as in (3).

- (3) Anna odpowiedziała **na jakieś pytanie**, ale nie pamiętam **które** ~~to~~  
 Anna answered PREP some question.ACC but not I.remember which.ACC it  
~~na pytanie Anna odpowiedziała.~~  
 PREP question.ACC Anna answered  
 ‘Anna answered some question but I don’t remember which question it was that she answered.’

Just as preposition-omission under sluicing is only licensed by complex (*which*-NP)

remnants, according to Szczegielniak, so too, preposition stranding is only licensed by clefts with *which*-phrases.<sup>1</sup> One natural prediction of this analysis is that if such clefts are the sources for *which*-NP remnants, we would expect the two constructions to align in acceptability. However, the results of an acceptability judgments study testing this prediction fail to support it.

Forty monolingual speakers of Polish rated interrogative clefts (with and without preposition-stranding) and sluices (with and without prepositions) on a four-point scale. All items contained *which*-NP phrases, as in (4). A repeated measures ANOVA was used to analyze the data.

- (4) a. **Które to na pytanie** Anna odpowiedziała?  
 which it PREP question.ACC Anna answered  
 ‘Which question was it that Anna answered?’
- b. **Na które to pytanie** Anna odpowiedziała?  
 PREP which it question.ACC Anna answered  
 ‘Which question was it that Anna answered?’
- c. Anna odpowiedziała **na jakieś pytanie**, ale nie pamiętam **na które** (pytanie).  
 Anna answered PREP some question.ACC but not I.remember PREP which.ACC question.ACC
- d. Anna odpowiedziała **na jakieś pytanie**, ale nie pamiętam **które** (pytanie).  
 Anna answered PREP some question.ACC but not I.remember which.ACC question.ACC  
 ‘Anna answered some question, but I don’t remember what question.’

Contrary to Szczegielniak’s argument, interrogative clefts with preposition stranding (condition a) were significantly degraded with respect to conditions b, c, and d. This pattern yielded a main effect of preposition-stranding/omission ( $F_1 = 60.792$ ,  $p < .001$ ;  $F_2 = 411.40$ ,  $p < .001$ ) and a condition x preposition-omission interaction ( $F_1 = 33.212$ ,  $p < .001$ ;  $F_2 = 227.31$ ,  $p < .001$ ). These results indicate that analyzing interrogative clefts as the sources of *wh*-remnants without prepositions lacks empirical support. In the next section, I test the claim that only *which*-NP remnants tolerate preposition omission in Polish.

**3 Beyond clefts.** Another strand of evidence against the cleft analysis comes from sluicing that has as correlates pronouns modified by reduced relative clauses, that is, *something red* in (5).

- (5) Byłaś ubrana **w coś czerwonego** tamtej nocy, ale nie pamiętam (**w co**).  
 you.were dressed in something.ACC red.ACC that night but not I.remember in what.ACC  
 ‘You were dressed in something red that night, but I don’t remember what.’

The remnant isn’t a *which*-phrase, and hence no underlying cleft is available for it on Szczegielniak’s analysis. I tested the acceptability of such remnants in an experiment whose stimuli combined the condition in (5)–with and without prepositions–with that in (4c, d). The design involved a different group of forty participants and a four-point scale.

<sup>1</sup> Szczegielniak has nothing to say about the fact that the possibility of preposition-omission extends beyond sluicing, thus missing a large part of naturally-occurring data, which I address later in this paper.

The effect of preposition-omission was marginal by items ( $F_1 = 5.0902$ ,  $p = .03434$ ) and significant by subjects ( $F_2 = 38.4353$ ,  $p < .000$ ). I found no other effects or interactions, which suggests that there's little contrast between the two conditions. This is evidence that non-complex *wh*-remnants without prepositions are acceptable if their correlates are complex, that is, modified as opposed to bare pronouns.

**3.1 Interim conclusion.** The cleft analysis on the one hand employs an unacceptable structure as the underlying source of sluicing, and on the other, misses an acceptable pattern in the data. A more adequate predictor of preposition-omission emerging from these experiments is phrasal complexity (cf. Hofmeister 2008) of the correlate and remnant.

**4 Beyond sluicing.** The configuration in which a PP correlate could in principle license a PP or NP remnant is found in BAE and gapping. Preliminary experimental evidence and Google data show that PP correlates license NP remnants in Polish in both constructions, depending on the phrasal complexity of the correlates and remnants.

**4.1 BAE.** One way of increasing phrasal complexity under BAE is to use adjectival modifiers in the remnants, as in (6b) as opposed to (6a).

- (6) a. A: **Od kogo** dostałeś prezent? B: (Od) kolegi.  
           from who.GEN you.got present from friend.GEN  
           A: 'Who did you get a present from?' B: 'A friend.'
- b. A: **Od jakiego kolegi** dostałeś prezent? B: (Od) bogatego (kolegi).  
           from what friend.GEN you.got present from rich.GEN friend.GEN  
           A: 'What friend did you get a present from?' B: 'A rich one.'

(6a) and (6b) were paired as conditions (simple vs. complex) in an acceptability judgment study exploring the effect of phrasal complexity on the availability of preposition-omission. The procedure and design were the same as before. There was a main effect of preposition-omission ( $F_1 = 117.7407$ ,  $p < .001$ ;  $F_2 = 120$ ,  $p < .001$ ) and a main effect of condition ( $F_1 = 18.169$ ,  $p < .001$ ;  $F_2 = 34.105$ ,  $p < .001$ ). Although NP remnants were degraded in both conditions with respect to PP remnants, they received significantly lower scores in the simple condition than in the complex one ( $t_1 = 4.0620$ ,  $df = 11$ ,  $p < .002$ ;  $t_2 = 4.1295$ ,  $df = 9$ ,  $p < .003$ ). This result suggests that the possibility of preposition-omission is sensitive to phrasal complexity under BAE.

**4.2 Gapping.** Gapping remnants, too, can appear with adjectival modifiers, gaining in phrasal complexity. The acceptability of NP remnants was explored in a study that compared gapping with sluicing.<sup>2</sup> Sample experimental items appear in (7).

- (7) a. Ja nocuję **w tanich hotelach**, a moja żona (w) **drogich**.  
           I stay at cheap hotels.LOC and my wife at expensive.LOC  
           'I stay at cheap hotels and my wife at expensive ones.'
- b. Moja żona nocowała **w jakimś hotelu**, ale nie pamiętam (w) **którym**  
           my wife stayed at some hotel.LOC but not I.remember at which.LOC  
           'My wife stayed at a hotel but I don't remember which.'

<sup>2</sup> I assume, uncontroversially, that non-complex NP remnants are unacceptable under gapping.

A main effect of preposition-omission ( $F_1 = 12.263$ ,  $p < .001$ ;  $F_2 = 23.897$ ,  $p < .001$ ) and an interaction between preposition-omission and condition ( $F_1 = 12.263$ ,  $p < .001$ ;  $F_2 = 22.671$ ,  $p < .001$ ) were observed. NP remnants were degraded with respect to PP remnants under gapping, but their scores were only marginally different from those received by sluicing remnants without prepositions ( $t_1 = 2.3203$ ,  $df = 11$ ,  $p = .0406$ ).<sup>3</sup> The results for BAE and gapping offer preliminary insight into the influence of phrasal complexity on the possibility of preposition-omission across constructions with overt PP correlates.

**4.3 Google data.** Prepositions are felicitously omitted from remnants containing: possessives, quantifiers, numerals, or modification of determiners by PPs/relative clauses. Example (8) has a possessive and (9) a determiner with a post-modifying PP.

(8) A: Co sądzisz o życiu? B: O czym, twoim?  
 what you.think about life.INSTR about whose.INSTR yours.INSTR  
 ‘A: What do you think about life? B: Whose, yours?  
 ([http://www.samosia.pl/pokaz/175011/Touch\\_me](http://www.samosia.pl/pokaz/175011/Touch_me))

(9) A: Rozmawiałem z Tomem Cruise. B: Tym z telewizji?  
 I.spoke with Tom.INSTR Cruise. this.INSTR from TV?  
 ‘A: I spoke with Tom Cruise. B: The one from the movies? (TV show)

These data suggest that only bare nouns, pronouns and proper names resist preposition-omission when functioning as ellipsis remnants.

**5 Discussion.** I interpret the experimental and Google data as pointing to a processing explanation for preposition-omission under ellipsis: the more complex the correlate and the remnant, the less of a role prepositions play in helping recover the meaning for the remnant. This is consistent with non-transformational approaches to ellipsis (cf. Ginzburg and Sag 2000, Culicover and Jackendoff 2005).

**6 Conclusion.** Using experimental data, I demonstrate that the cleft analysis of possible cases of preposition-omission under Polish sluicing is empirically inadequate. This finding reduces evidence for transformational approaches to ellipsis. I propose, based on further experimental and Google data, that the use of ellipsis remnants without prepositions is a gradient phenomenon that exists independently of the availability of preposition stranding in a given language.

**References:** Culicover, P. and R. Jackendoff. 2005. *Simpler Syntax*. New York: Oxford University Press. Fortin, C. 2007. Indonesian sluicing and verb phrase ellipsis: Description and explanation in a minimalist framework. Doctoral dissertation, University of Michigan, Ann Arbor. Ginzburg, J. and I. A. Sag. 2000. *Interrogative Investigations. The form, meaning and use of English interrogatives*. Stanford, CA: CSLI Publications. [Distributed by U. Chicago Press]. Hofmeister, P. 2008. The after-effects of linguistic form choice on comprehension. Poster presented at CUNY. Merchant, J. 2001. *The syntax of silence: Sluicing, islands, and the theory of ellipsis*. Oxford: Oxford University Press. Rodrigues, C., A. Nevins, and L. Vicente. 2009. Cleaving the interactions between sluicing and preposition stranding. In: Wetzels, L., Weijer, J. van der (eds.), *Romance Languages and Linguistic Theory 2006*, 175–198. John Benjamins, Amsterdam. Szczepielniak, Adam. 2008. Islands in sluicing in Polish. In Natasha Abner and Jason Bishop (eds.), *Proceedings of the 27th West Coast Conference on Formal Linguistics*, Cascadia Proceedings Project, 404–412. Somerville, MA, USA. Vicente, L. 2006. *Negative short replies in Spanish*. Ms., University of Leiden. Vicente, L. 2008. Syntactic isomorphism and non-isomorphism under ellipsis. Ms. UCSC.

<sup>3</sup> This difference was significant by items ( $t_2 = 3.3541$ ,  $df = 9$ ,  $p < .009$ ).