

EMBEDDED GAPPING? A CROSS-LINGUISTIC PERSPECTIVE

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It is usually assumed (Hankamer 1979, Neijt 1979, Johnson 2009) that gapping differs from other kinds of ellipsis in banning embedding (No Embedding Constraint, cf. (1)). However, Weir (2014) suggests that embedding gapping may depend on the matrix verb (2). Counter-examples have been found in Persian (Farudi 2013), Spanish (3) (Garcia-Marchena 2015, 2018) and Romanian (Bîlbîie 2017).

- (1) *Alfonso stole the emeralds, and **I think [that Mugsy the pearls]**. (Hankamer 1979)
- (2) John ate oysters...
 - a. and I { ?think | ?believe | ??hope | suspect | ?was told | imagine} Mary swordfish.
 - b. and I { ?*found out | *remember | *deny | ?*know} Mary swordfish.
 - c. and I { *am proud | *am angry | *am surprised} Mary swordfish. (Weir 2014)
- (3) Pero el chico la ama y dicen que ella a él. (CORLEC, CONV 033A)
'But the boy loves her and they-say that she him.'

We show, based on 4 acceptability judgment tasks for Spanish, Romanian and English, that there is cross-linguistic variation with respect to embedded gapping, and that two constraints seem to be at work: on the semantic side, non factive verbs embed more easily than factive ones (Kiparsky & Kiparsky 1970, Karttunen 1971), independently of ellipsis; on the syntactic side, no complementizer (with non factive verbs) embeds more easily than a complementizer (Jaeger 2006, 2010).

To test the semantic constraint, we ran 3 experiments (24 experimental items and 12 control items each), using a 2x3 design (gapping, embedding-nonfactive, embedding-factive), with similar materials (and similar distractors) in each language (4). The rating scale was 1-10 in Spanish and Romanian, and 1-7 in English. We had 56 participants for Spanish (on AMT), 72 for Romanian, and 51 for English (on AMT).

- (4) a. [**±gapping, +embed, +factive**]
(S) En el bar, Pablo pidió una cerveza y **me molesta que** Juan (pidió) un whisky.
(R) La restaurant, Paul a comandat o bere și **mă îngrijorează că** Florin (a comandat) un whisky.
(E) At the bar, Paul ordered a beer and **it bothers me that** John (ordered) a whisky.
- b. [**±gapping, +embed, -factive**]
(S) En el bar, Pablo pidió una cerveza y **sospecho que** Juan (pidió) un whisky.
(R) La restaurant, Paul a comandat o bere și **bănuiesc că** Florin (a comandat) un whisky.
(E) At the bar, Paul ordered a beer and **it seems that** John (ordered) a whisky.
- c. [**±gapping, -embed**]
(S) En el bar, Pablo pidió una cerveza y Juan (pidió) un whisky.
(R) La restaurant, Paul a comandat o bere și Florin (a comandat) un whisky.
(E) At the bar, Paul ordered a beer and John (ordered) a whisky.

To test the syntactic constraint, we ran Experiment 4 on English, using a 2x2 design (±gapping, ±*that*), with 20 experimental items (5), with non factive verbs, and 24 distractors from an unrelated experiment; the rating scale was 1-7 and we had 49 participants (on AMT).

- (5) a. [**±gapping, +that**]
At the corner shop, Peter stole cigarettes and **I think that** Larry (stole) chocolates.
- b. [**±gapping, -that**]
At the corner shop, Peter stole cigarettes and **I think** Larry (stole) chocolates.

We only report significant results ($p < 0.01$) using linear mixed-effects models. In Spanish and Romanian, embedded gapping is as acceptable as embedded non-gapping under non factive verbs. In English, there is an interaction between gapping and embedding (mean z-score for embedded gapping -0.8). Moreover, factivity is significant in all languages: embedded clauses under a factive verb are less acceptable than under a non factive verb. Interestingly, this effect is not correlated with ellipsis in Spanish (no significant difference between gapping and non-gapping).

Experiment 4 shows a significant effect of complementizer, a significant effect of gapping and a significant interaction between the two. The absence of complementizer renders embedded gapping more acceptable.

We conclude that the No Embedding Constraint on gapping cannot be maintained. Embedded gapping is affected not only by the semantic class of the embedding predicate, but also by the presence/absence of the complementizer. The difficulty of coordinating a simple clause and a complex clause may result from a more general parallelism constraint on coordination (Frazier & Clifton 2000) and the further penalty on factive verbs may come from their non-assertive nature (Hooper 1974) and/or from the QUD-incongruence (Ginzburg 2012).

References: • **Bîlbîie**, G. 2017. *Grammaire des constructions elliptiques. Une étude comparative des phrases sans verbe en roumain et en français*. Berlin: Language Science Press. • **Farudi**, A. 2013. Gapping in Farsi: a crosslinguistic investigation. PhD thesis, Amherst. • **Frazier**, L. & C. **Clifton** 2000. Processing coordinate structures. *Journal of Psycholinguistic Research* 29(4), 343-370. • **Garcia-Marchena**, O. 2015. Phrases averbales et fragments de l'espagnol oral. PhD thesis, Paris 7 University. • **Garcia-Marchena**, O. 2018. Polar verbless clauses and gapping subordination in Spanish. In E. Fuß et al. (eds.), *Grammar and Corpora 2016*, 169-182. Heidelberg University Publishing. • **Ginzburg**, J. 2012. *The Interactive Stance: meaning for conversation*. OUP. • **Hankamer**, J. 1979. *Deletion in coordinate structures*. Garland Pub. • **Hooper**, J. 1974. On assertive predicates. *Syntax and Semantics* 4, 91-124. • **Jaeger**, F.T. 2006. Redundancy and Syntactic Reduction in Spontaneous Speech. PhD thesis, Stanford University. • **Jaeger**, F.T. 2010. Redundancy and reduction: Speakers manage syntactic information density. *Cognitive Psychology* 61(1), 23-62. • **Johnson**, K. 2009. Gapping is not (VP-) ellipsis. *Linguistic Inquiry* 40, 289-328. • **Karttunen**, L. 1971. Some observations on factivity. *Papers in Linguistics* 4, 55-69. • **Kiparsky**, P. & C. **Kiparsky** 1970. Fact. In M. Bierwisch & K. Heidolph (eds.), *Progress in Linguistics*, 143-173. Mouton. • **Neijt**, A. 1979. *Gapping: A contribution to Sentence Grammar*. Foris Publications.

+factive -factive -embedding

