

Complementizer Deletion in Embedded Gapping in Spanish

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Observations on Gapping and Subordination

English & German

(1) Embedding both Conjuncts

(*Head Condition*, Wilder 1997)

- a. Bert **suspects** that John orders seafood and (*that) Mary __ steak.
- b. Bert **vermutet**, dass Hans Fisch bestellt und (*dass) Maria Steak __.

(2) Embedding one Conjunct

(*No Embedding Constraint*, Hankamer 1979, Johnson 2019)

- a. ?John orders seafood and Bert **suspects** (*that) Mary __ steak.
- b. ?Hans bestellt Fisch und Bert **vermutet** (*dass) Maria Steak __.

☞ Complementizer must be **absent** in gapping conjunct.

(cf. Repp 2009, Bîlbîie et al. 2020)

Observations on Gapping and Subordination

Spanish

(3) **Embedding both Conjuncts**

(see Appendix for corpus examples)

a. Berto **sospecha** que Juan pide marisco y (que) María bistec.

(4) **Embedding one Conjunct**

(Bilbīe & de la Fuente 2019)

a. Juan pide marisco y Berto **sospecha** *(que) María bistec.

👉 Complementizer may (3a) or must (4a) be **present** in gapping conjunct.

Observations on Gapping and Subordination

Spanish

(3) Embedding both Conjuncts

(see Appendix for corpus examples)

a. Berto **sospecha** que Juan pide marisco y (que) María bistec.

(4) Embedding one Conjunct

(Bilbīe & de la Fuente 2019)

a. Juan pide marisco y Berto **sospecha** que María bistec.

b. ??Juan pide marisco y Berto **lamenta** que María bistec.

👉 Complementizer may (3a) or must (4a) be **present** in gapping conjunct.

● Ability to embed one conjunct is dependent on verb type.

👉 good for non-factives

👉 degraded for factives, like *lamenta* 'regret' in (4b)

(Bilbīe & de la Fuente 2019, cf. corpus-evidence in Garcia-Marchena 2018)

Observations on Gapping and Subordination

Spanish

(3) Embedding both Conjuncts

(see Appendix for corpus examples)

- a. Berto **sospecha** que Juan pide marisco y (**que**) María bistec.
- b. Berto **lamenta** que Juan pida marisco y ?(**que**) María bistec.

(4) Embedding one Conjunct

(Bilbīe & de la Fuente 2019)

- a. Juan pide marisco y Berto **sospecha** que María bistec.
- b. ?? Juan pide marisco y Berto **lamenta** que María bistec.

☞ Complementizer may (3a) or must (4a) be **present** in gapping conjunct.

● Does overt *que* depend on verb type, too?

- ☞ good for non-factives?
- ☞ degraded for factives?

Outline

1 Acceptability Study (6 Experiments)

2 Results

3 Theoretical Analysis

4 Conclusion

Experiments

We conducted 6 experiments.

- 2 on German *dass* 'that' in gapping:
 - under non-factives
 - under factives
 - 👉 *dass* is unacceptable regardless of embedding verb.
- 3 on Spanish *que* 'that' in gapping:
 - ① under non-factives
 - ② under factives
 - ③ under non-factives and factives
- 1 on Spanish *que* 'that' in non-elliptic coordination.
 - 👉 Full clauses are clearly different from ellipsis.

Sample Item

- Experiments 1&2 contrasted gapping and stripping.

(5) *Santiago cree/desaprueba que el rey fuma/fume cada día*
S. thinks/disapproves that the king smokes-IND/SUBJ every day
'Santiago thinks/disapproves that the king smokes every day ...'

a. *y (que) la reina, __ a veces.* (Gapping)
and (that) the queen **at times**
'and (that) the queen sometimes.'

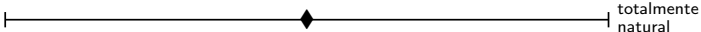
b. *y (que) la reina, __ también.* (Stripping)
and (that) the queen **too**
'and (that) the queen, too.'

(for stripping, cf. Villa-García 2015, 2016)

Questionnaire

Durante la cena se discuten los hábitos de la familia real.
[During dinner, the habits of the royal family are discussed.]
Santiago cree que el rey fuma cada día y la reina, también.

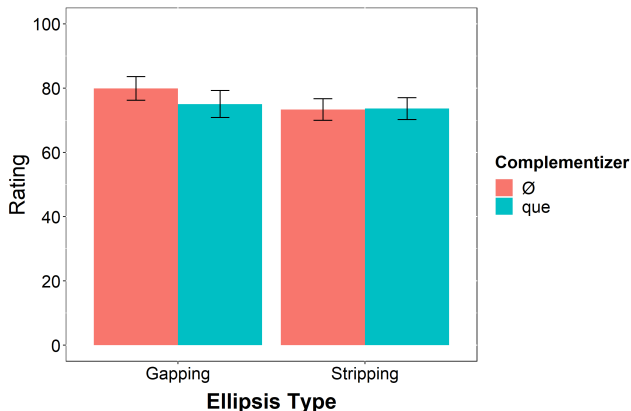
totalmente
forzado



totalmente
natural

Spanish Non-Factives (Exp. 1)

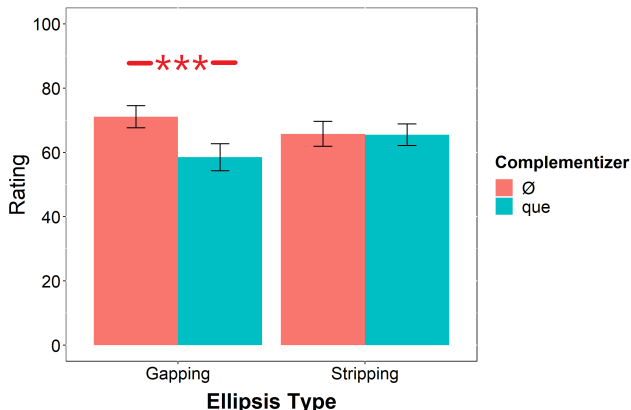
27 participants, 24 lexical contents, 12 different embedding verbs, 36 fillers



- no statistically significant differences
- (Statistical analysis was conducted with R-packages `afex` & `lmer`)

Spanish Factives (Exp. 2)

27 participants, 24 lexical contents, 12 different embedding verbs, 36 fillers



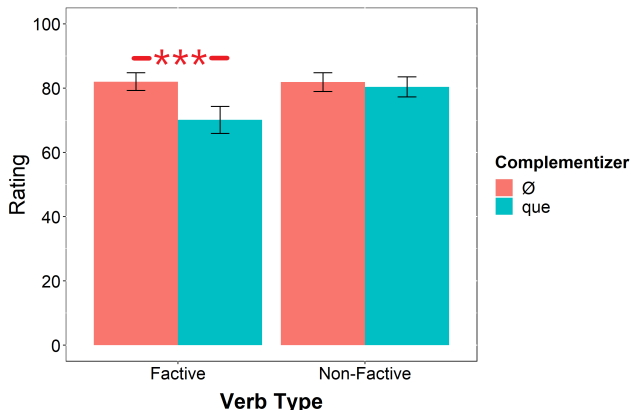
- significant main effect of Complementizer ($p < .05$)
- significant interaction of Complementizer*Ellipsis Type ($p < .05$)
- effect of Complementizer only significant for gapping data ($p < .001$)

Conclusions

- Complementizer deletion is not obligatory in Spanish embedded ellipsis.
- Factive embedding predicates disprefer overt *que* in gapping clauses.
- Factives with *que* are still acceptable.
- Across experiments, non-factives are preferred over factives.

Spanish Gapping (Exp. 3)

32 participants, 24 lexical contents, 24 different embedding verbs, 36 fillers



- significant main effect of Complementizer ($p < .01$) & Verb Type ($p < .05$)
- significant interaction of Complementizer*Verb Type ($p < .01$)
- effect of Complementizer only significant for Factives ($p < .001$)

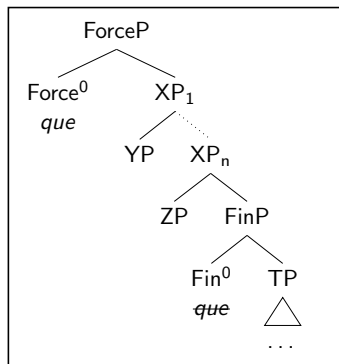
Conclusions

- The effect of factivity on complementizer deletion was replicated.
- A general difference w.r.t. factivity did not show.

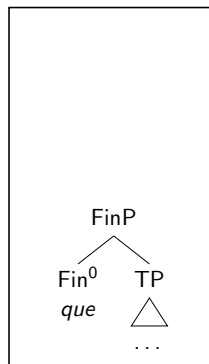
Proposal: Structural Ambiguity

- 1 In Spanish, there are two structures available for gapping (cf. Jung 2016)
 - 👉 Clausal coordination for gapping with complementizer
 - 👉 Sub-clausal coordination for gapping without complementizer (i.e. some phrase below the CP-layer)
- 2 Non-factive and factive complements differ in structure (e.g. Haegeman 2006)
 - 👉 Non-factives are 'large' (ForcePs).
 - 👉 Factives are 'little' (FinPs).
- 3 Clausal coordination gapping is only available for ForcePs.
- 4 Factives may take atypical ForceP complements, at the cost of some acceptability reduction.

Different Structures for Non-Factives & Factives



non-factives



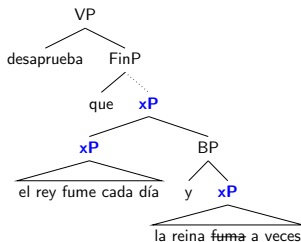
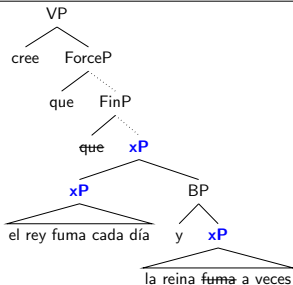
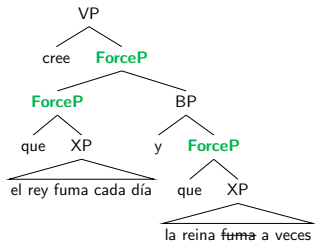
factives

(cf. Rizzi 1997; Villa-García 2015, 2016 for 'large' structure with two complementizer positions)

No ForceP in Factives No Clausal Coordination Gapping

non-factives

factives

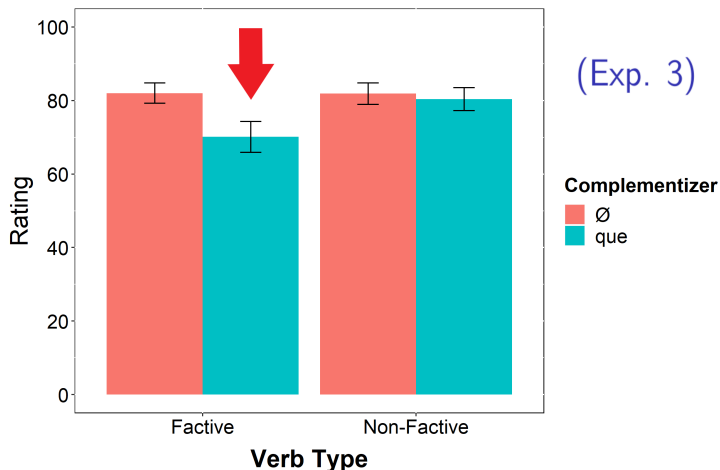


(cf. Munn 1993 for BP in coordination)

A Problem

Hang on

High coordination gapping must be available in factives.



A Solution

- The choice of complement size/structure is variable.
- Typically, factives lack the necessary structure for clausal coordination gapping.
- However, this isn't a hard constraint.
 - 👉 Fin or Force isn't categorical selection.
 - 👉 Overt *que* with factives forces an atypical ForceP for a factive complement.
 - 👉 This then needs to receive a non-factive interpretation, leading to a reduction in acceptability.

Factivity as a Gradual Phenomenon

- Factivity is subject to gradual, not categorical variation.
- Predicates display variable behaviour as to their degree of factivity:
 - variability within predicates of the same supposed 'type' (Tonhauser et al. 2018)
 - variability within the same predicate (ibid.)
- Interpretation is affected by non-lexical properties of the embedded clause such as:
 - syntactic features, e.g. dislocation (Haegeman 2006)
 - information structure (Simons et al. 2017)
 - 👉 overt *que* in gapping? (experiments in preparation)

Conclusion

- Our experimental data show that . . .
 - ☞ Spanish allows overt complementizers in embedded gapping.
 - ☞ there is a gradual difference between non-factives and factives.
- We propose that this can be accounted for structurally.
- Predictions:
 - Non-factive interpretations should be favoured under *que*.
 - Other interpretative effects that have been linked to clausal coordination should invariably have *que*. (e.g. certain scope facts, Jung 2016)

Thank you for your attention!

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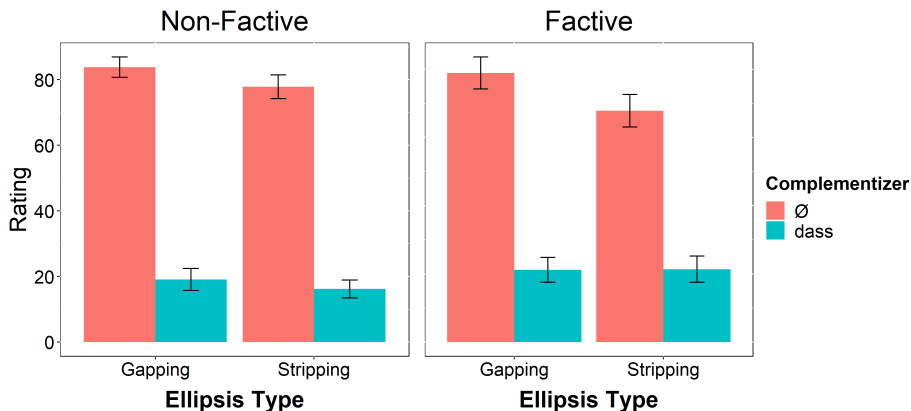
Appendix: German Experiments

Sample Item

- (6) *Thomas glaubt/missbilligt dass der König jeden Tag raucht*
T. thinks/disapproves that the king every day smokes
'Thomas thinks/disapproves that the king smokes every day ...'
- a. *und (dass) die Königin, __ manchmal.* (Gapping)
and (that) the queen **at.times**
'and the queen sometimes.'
- b. *und (dass) die Königin, __ auch.* (Stripping)
and (that) the queen **too**
'and the queen, too.'

German Experiments

27/25 participants, 24 lexical contents, 12 predicates, 36 fillers



Conclusions

- ✎ Complementizer deletion is obligatory in German
 - 1 regardless of verb type.
 - 2 regardless of ellipsis type.

Appendix: Experiment on Spanish Full Clauses

Research Question & Sample Item

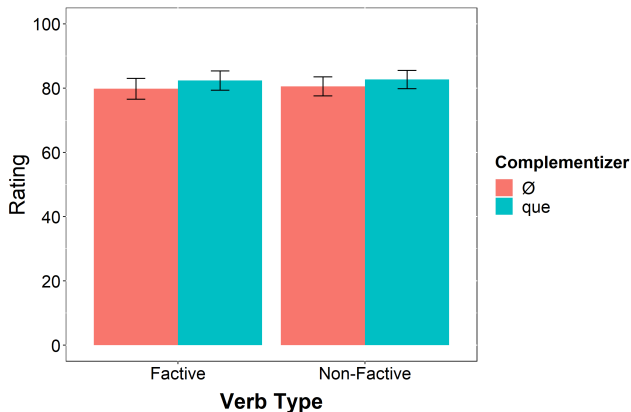
- Is complementizer preference an effect of ellipsis?
- Do factives disprefer *que* in full clauses as well?

(7) *Santiago cree que el rey fuma cada día y*
S. thinks that the king smokes every day and
(que) la reina fuma a veces.
(that) the queen smokes at times

'Santiago thinks that the king smokes every day and (that)
the queen **smokes** sometimes.'

Spanish Full Clauses

35 participants, 24 lexical contents, 24 predicates, 36 fillers



- no significant effects

Conclusions

- 👉 slight preference for **overt** *que*, regardless of factivity
- 👉 no difference between non-factives and factives
- 👉 Acceptability of *que is* dependent on gapping.

Appendix: Corpus examples

Corpus Example 1

que in Gapping-Conjunct I

- (8) *Él cree que el mundo es su empresa y*
he thinks *that* the world is his company and
que los mexicanos __ sus lacayos.
that the Mexicans his lackeys

'He thinks that the world is his company and that the Mexicans his lackeys.'¹

¹adapted from a Mexican online newspaper:
http://www.afntijuana.info/editoriales/67101_trump_no_te_necesitamos, accessed Nov. 14, 2019, 14:30.

Corpus Example 2

que in Gapping-Conjunct II

- (9) *El sistema ocasiona que las cervezas más baratas paguen más impuestos y que las más caras — menos.*
the system causes that the beers more cheap pay more taxes and that the more expensive less

'The system causes the cheapest beers to pay more taxes and the most expensive ones to pay less.'²

²adapted from a Peruvian online newspaper: <https://gestion.pe/economia/sigue-controversia-calculo-isc-aplicado-cervezas-43073-noticia/>, accessed Nov. 12, 2019, 14:10.

Corpus Example 3

que is not obligatory

- (10) *Me informó **que** el sonido alto era mi sistema nervioso y me informed **that** the sound high was my system nervous and \emptyset el bajo __ mi sangre en circulación.*
the low my blood in circulation

'He informed me that the high sound was my nervous system, and the low one my blood in circulation.'³

³adapted from a Spanish online newspaper:

<https://elcorreoweb.es/maspasion/guia-cofrade-silencio-383-FD3894986>, accessed May 20, 2020, 17:15.