

# Levels of meaning in Spanish degree exclamationives

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## Outline

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## The empirical issue

- (1) How tall Mary is!
- a. Mary is tall.
  - b. Mary is tall beyond expectation.
- (1)-a is a PRESUPPOSITION: Grimshaw (1979); Zanuttini and Portner (2003); Abels (2010).
  - (1)-b is
    - a PRESUPPOSITION: Gutiérrez-Rexach (1996, 2008);
    - a *conventional* IMPLICATURE (CI): Zanuttini and Portner (2003); Beyssade (2009).

## High degree as a presupposition

Gutiérrez-Rexach (1996):

- (2) How tall is John?
- $$\iota p \exists d [p(w) \wedge p = \lambda w' [d = \text{MAX}(\lambda d' [tall(w')(j, d')])]]$$

## High degree as a presupposition

- (3) ¡Qué/lo alto que es Juan!  
 what/the-N tall that is Juan  
 'How tall Juan is!'

$EXC(a)(w)(\iota p \exists d [p(w) \wedge p = \lambda w' [d = MAX(\lambda d' [tall(w')(j, d')]])])])$

“It would seem more adequate to treat this property [=extreme degree] not as an implicature but rather as a presupposition. A precondition that has to be met by the preceding discourse (or common ground) in order to be successfully updated with the content expressed by the exclamative.”

(Gutiérrez-Rexach, 2008, 121)

## High degree as a presupposition

Hence, for (Gutiérrez-Rexach, 2008, 121) (also for Castroviejo (2008)), exclamatives have no asserted meaning at all. As a consequence, one can understand that they fare so poorly as answers to questions (Grimshaw, 1979). But this is possibly too simple a conclusion:

- (4) A: Is Trump going to resign after the porn star scandal?  
 B: Oh boy, how naïve you are!
- (5) Context: A group of friends just ended dinner, and suddenly one of them realizes that Mary is missing at the table and went to the balcony.
- a. A: What is Mary doing on the balcony?  
 b. B: She hasn't managed to quit smoking.

## High degree as a conventional implicature

For Zanuttini and Portner (2003), the high degree meaning is an implicature, but it must be *conventional*, for it cannot be computed nor cancelled:

- (6) a. #How very cute he is!—though he's not extremely cute.  
b. He's quite cute!—though not extremely cute.

The formal feature triggering the CI is

### Widening (Zanuttini and Portner, 2003, 52)

For any clause S containing  $R_{widening}$ , widen the initial domain of quantification for  $R_{widening}$ ,  $D1$ , to a new domain,  $D2$ , such that

- 1  $[[S]]^{w,D2,<} - [[S]]^{w,D1,<} \neq \emptyset$  and;
- 2  $\forall x \forall y [(x \in D1 \wedge y \in (D2 - D1)) \rightarrow x < y]$ .

## Doubts about the conventional implicature

- (7) a. #How very cute he is!—though he's not extremely cute.  
b. He's quite cute!—though not extremely cute.
- (8) Castroviejo (2008)  
a. #How very cute he is!—but he lives a thousand miles away.  
b. #How very cute he is!—because his mother is also extremely cute.

## Question

Can we test the different proposals experimentally?

## Departing point

Mayol and Castroviejo (2013, 86), who build on Potts (2005); Roberts (2011); Tonhauser et al. (2013):

- **AT-ISSUE MEANING** (Potts, 2005): the asserted content of an utterance, which can be described in terms of truth-conditions, and is open to discussion, acceptance or denial.
- **CONVERSATIONAL IMPLICATURES**: content inferred from the at-issue meaning with the help of general conversational principles (Grice, 1975, 1981), which can help to address the Question under Discussion (QUD) making the at-issue meaning more informative.
- **PROJECTIVE MEANING** (Tonhauser et al., 2013): the content that may project over an entailment-canceling operator (i.e. presuppositions and CI), which cannot address the current QUD (Roberts, 2012).

## First test: at-issue meaning and denial

- Since denial deals with the QUD, it will affect at-issue meaning, but not presuppositions nor CI (Mayol and Castroviejo, 2013; Tonhauser et al., 2013).

- (9) How tall Mary is!
- Hey, wait a minute, she is not tall. [property]
  - Hey, wait a minute, she is not so tall. [high degree]

## Second test: projective behavior

- Projective behavior regarding filters (Abels, 2010):
  - presuppositions are sensitive to certain filters (Karttunen, 1973; Gazdar, 1979; Heim, 1983; van der Sandt, 1992; Tonhauser et al., 2013);
  - CI seem to project quite freely regardless of the context (Potts, 2005, 2007).

- (10) If Jack has children, then all of Jack's children are bald.  
(Karttunen, 1973)

- (11) If John is tall, how tall he is!

## Goal

The first experiment aimed at testing the preferred interpretation for the denial (“That’s not true”) of an exclamative sentence like *¡Qué alto es Juan!* ‘How tall John is!’, namely whether it was intended to deny the ascription of the property (“It is not true that John is tall”) or the high degree meaning involved (“It is not true that John is so tall”). The most favored option would be the best candidate for at-issueneess.

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## Participants and methods

- 37 Spanish first course undergraduate students of the Faculty of Arts of the UAB. None had any training in linguistics.
- Participants were explained the experiment procedure with a filler item that was not included in the test. Then they were asked to read a series of slides involving an interpretation task and a confidence evaluation regarding a denial of the property (e.g. “Mary is not tall”) or a denial of the high degree (e.g. “Mary is tall, but not that much”). The order of presentation of these two options was controlled: 4 targets had one order and the other 4 targets had the opposite order. Moreover, since the participants had a closed twofold option, we included a confidence evaluation tested by means of a 7-degrees Likert-scale.

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## Item model

1.

Considerad el diálogo siguiente:

PEDRO: ¡Qué alta que es María!

JULIA: No, no es verdad.

¿Qué versión os parece que refleja mejor lo que Julia quiere decir?

- A) María no es alta.
- B) María es alta pero no tanto.

Grado de seguridad de vuestra respuesta:

1	2	3	4	5	6	7
nada seguro			seguro			completamente seguro

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## Results

item	property		high degree		confidence
	#	%	#	%	average
1	29	78.37	8	21.62	5.51
3	8	21.62	29	78.37	4.86
5	32	86.48	5	13.51	5.37
7	23	62.16	14	37.83	4.45
9	34	91.89	3	8.10	5.56
11	21	56.75	16	43.24	5.13
13	24	64.86	13	35.13	4.64
15	33	89.19	4	10.81	5.43
<b>totals</b>	204	68.91	92	31.08	5.12

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## Experiment 1

- As for the confidence level, participants rated themselves over five out of seven on average (5.12;  $s=0.39$ ), without a sharp contrast between items. This value was not far from the average found for filler items: 5.70 ( $s=0.43$ ).
- They did not take the high degree involved in exclamatives as something at issue, and hence subject to denial.
- They easily cancelled the property involved in the exclamative, against (Grimshaw, 1979, 320) claim that “[t]he exclamation *How tall John is!* presupposes that John is tall, and an exclamation like *What big ears John has!* presupposes that John has big ears”.
- These data can hardly harmonize with Castroviejo (2008) analysis of exclamatives as involving no asserted part at all.

## Goal

The second experiment aimed at testing the naturalness of different denials of an exclamative sentence like *¡Qué alto es Juan!* ‘How tall John is!’ Unlike in experiment 1, we presented participants with three different replies that they had to evaluate regarding a Likert scale:

- assertion of the property plus denial of the high degree (“Yes, that’s true, but John is not so tall”);
- denial of the property (“No, that’s not true: John is not tall”);
- denial of the high degree (“No, that’s not true: John is tall, but not so tall”).

The option judged as most natural would be the best candidate for at-issueness.

## Participants and methods

- 27 Spanish last course undergraduate students with at least basic training in linguistics.
- Participants were explained the experiment procedure with a filler item that was not included in the test. Then they were asked to read a written questionnaire involving an evaluation task. Target items always involved a degree exclamation uttered by Pedro, and a reply by Julia alternating the following three options:
  - 1 Yes, that's true, but X is not so Adj.
  - 2 No, that's not true: X is not Adj.
  - 3 No, that's not true: X is not so Adj.
- Three lists of 18 items each (= 9 targets + 9 fillers) were created to avoid participants to be confronted with different replies by Julia to the same utterance by Pedro. List 1 was answered by 10 participants, list 2 by 7, and list 3 by 10 (208 target answers). Participants had 18 minutes for answering the questionnaire.

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## Item model

### 4.

Considerad el diálogo siguiente:

PEDRO: ¡Qué inteligente es Carlos!

JULIA: No es cierto: no es tan inteligente.

¿Cómo de natural valoráis la réplica de Julia?

totalmente absurda	muy extraña	extraña	algo extraña	poco natural	bastante natural	perfectamente natural
1	2	3	4	5	6	7

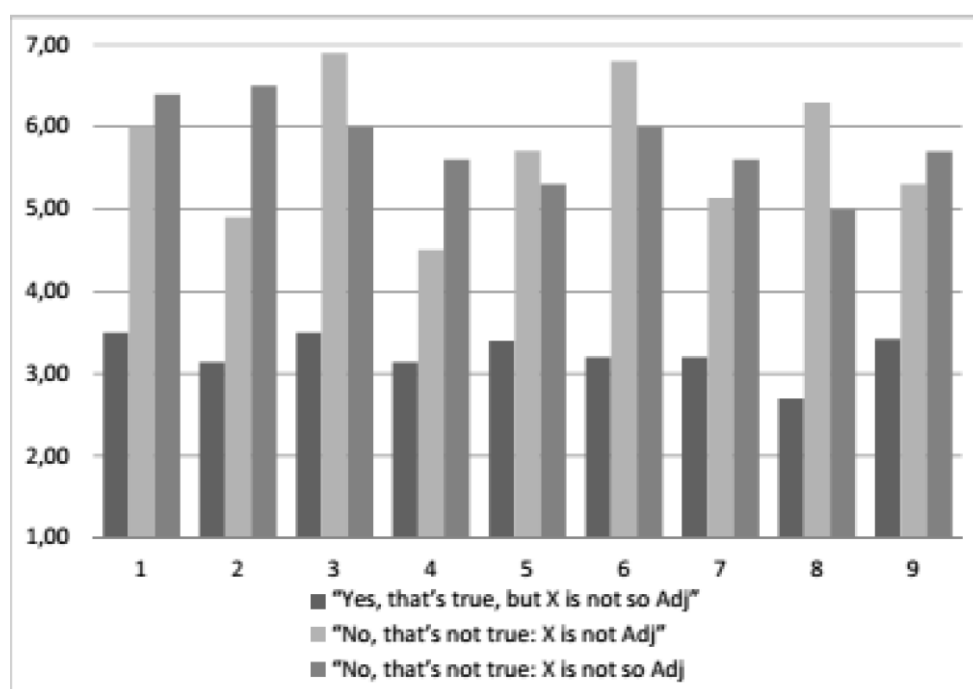
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## Results

item	Yes, but not so	No, is not	No, not so
2	3.5	6.0	6.4
4	3.1	4.9	6.5
6	3.5	6.9	6.0
8	3.1	4.5	5.6
10	3.4	5.7	5.3
12	3.2	6.8	6.0
14	3.2	5.1	5.6
16	2.7	6.3	5.0
18	3.4	5.3	5.7
<b>average</b>	<b>3.23</b>	<b>5.72</b>	<b>5.79</b>
<b>standard deviation</b>	<b>0.25</b>	<b>0.84</b>	<b>0.48</b>

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## Results



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## Experiment 2

- Denial of the property (“No, that’s not true: X is not Adj”) was judged quite natural (5.72 over 7) [ $\cong$  Exp1];
- Denial of the high degree part was judged very differently regarding the form of the answer:
  - positive endorsement plus denial of the high degree (“Yes, that’s true, but X is not so Adj”) was unnatural: 3.23 over 7 [ $\cong$  Exp1];
  - negative denials of the high degree (“No, that’s not true: X is not so Adj”) was very natural: 5.79 over 7 [ $\neq$  Exp1].
- Confirmations (“Yes, that’s true, but. . .”) endorse both the property and the high degree, which yielded a contradictory feeling when denying the high degree part.

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### Projective behavior

## Projecting presuppositions

- (12) Fred regrets that he kissed Betty.
- (13) Fred doesn’t regret that he kissed Betty. [**HOLE** ↑]
- (14) John says that Fred regrets that he kissed Betty. [**PLUG** ↗]
- (15) a. If Fred regrets that he kissed Betty, then she does so, too.  
[**FILTER** ↑]
- b. If Fred kissed Betty, then he regrets that he kissed her.  
[**FILTER** ↗]

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## Where do we stand?

To sum up: there is precious little direct evidence for the hypothesis that a wh-question presupposes the corresponding existential declarative, because it is so difficult for questions to occur in embedded positions, if they can occur in such positions at all. In other words, it is a non-trivial matter to show that questions give rise to inferences that exhibit projection behaviour. However, the chief purpose of the foregoing discussion was not to establish that this is so. Its purpose was mainly to indicate the issues that need to be addressed if one wants to test the hypothesis that questions are presupposition inducers, and I believe this was a useful exercise because, to the best of my knowledge, *none* of the authors who have considered this hypothesis have addressed these issues in any systematic way. (Geurts, 1999, 9-10)

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## Plugs

(Abels, 2010, ex.23):

- (16) Friends often tell me what a wonderful cook I am –I always tell them it is the ingredients, not my skill as a cook.

cf. CI exs. from Abels (2010)

- (17) Sheila says that Chuck, a confirmed psychopath, is fit to watch the kids.

Abels's conclusion (p. 153):

*Thus like presuppositions and unlike Potts' conventional implicatures, factivity in what-a exclamatives and how-very exclamatives can be plugged.*

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## Filters

(Abels, 2010, ex.25-26):

- (18) If Thomas really were extraordinarily tall, his classmates would surely know how very tall he is.

Abels's conclusion (p. 155):

*Again what-a exclamatives and how-very exclamatives behave as though they carry a factive presupposition that can be filtered, and again there is a clear distinction here between the behavior of what-a exclamatives and how-very exclamatives on the one hand and Potts' conventional implicatures on the other: Conventional implicatures are not filtered by disjunctions and conditionals.*

## Goal

The third experiment aimed at testing whether speakers allowed the projection of non-asserted meanings in exclamatives. They were asked to evaluate whether the high degree meaning projected in filtering conditional contexts. If the speakers preferred the projecting interpretation, one could conclude that the high-degree meaning wasn't a presupposition, but a CI.

## Participants and methods

- 34 Spanish first course undergraduate students without linguistics training were asked to read a series of slides involving an interpretation task.
- Participants were explained the experiment procedure with a filler item that was not included in the test. Target items were presented in a pseudorandom order with 16 fillers.
- All 16 target items shared the following structure: a direct quotation by Pedro, where Pedro always uttered a conditional sentence, where the antecedent casted doubt on content that was presupposed/implicated in the consequent, a standard filter for presupposition projection Karttunen (1973).
- Then participants were faced with two options for interpreting Pedro's belief: he believed that the individual had the property in a high degree (projecting interpretation) or he wasn't sure about it (non-projecting interpretation). Each item was presented for 30'.
- 34 participants × 16 target items = 544 answers.

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## Item model

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**Pedro dijo: “Si María tiene hijos, ¡qué inteligentes son, caramba!”**

Según este enunciado, ¿qué opción describe mejor la situación?

- A) Pedro no sabe si los hijos de María son muy inteligentes.
- B) Pedro cree que los hijos de María son muy inteligentes.

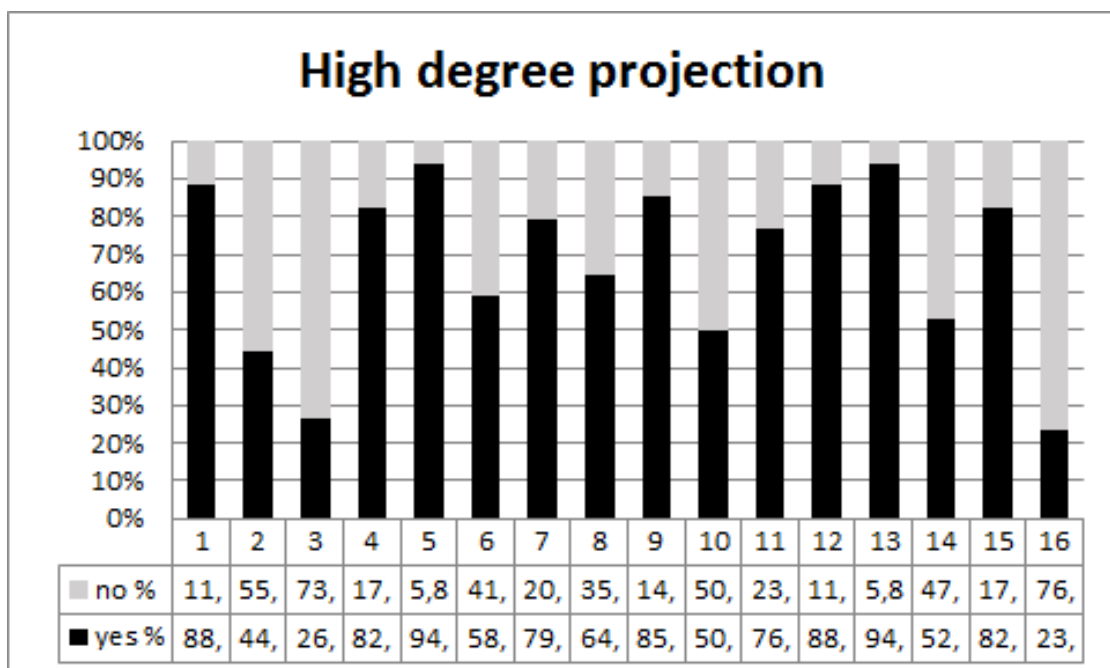
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## Results

item	yes #	no #	yes %	no %	
3	30	4	88.23	11.76	99.99
4	15	19	44.11	55.88	99.99
5	9	25	26.47	73.52	99.99
6	28	6	82.35	17.64	99.99
13	32	2	94.11	5.88	99.99
14	20	14	58.82	41.17	99.99
15	27	7	79.41	20.58	99.99
16	22	12	64.70	35.30	100.00
19	29	5	85.29	14.70	99.99
20	17	17	50.00	50.00	100.00
21	26	8	76.47	23.52	99.99
22	30	4	88.23	11.76	99.99
29	32	2	94.11	5.88	99.99
30	18	16	52.94	47.05	99.99
31	28	6	82.35	17.64	99.99
32	8	26	23.52	76.47	99.99
<b>totals</b>	<b>371</b>	<b>173</b>	<b>68.19</b>	<b>31.80</b>	

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## Results



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## Experiment 3

- speakers easily projected the high degree property to the whole utterance: on average, they allowed projection on 68.20% of the 16 crucial items;
- even though detailed variation and significance effects are on the go, we can affirm that the high degree interpretation projects under filters, which suggests that it is a CI.

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### Conclusions

## Conclusions

- Both the interpretation and the evaluation experiments showed that the ascription of the property (i.e. “Mary is tall”) was clearly at-issue meaning, against the received view.
- The high degree part showed a split behavior depending on the form, but on the whole it has been found much harder to deny (but not impossible) than the property ascription, suggesting it is not clearly at-issue.
- The projection experiment showed that the high degree meaning projected across filters, suggesting that it should better be analyzed as a conventional implicature rather than as a presupposition, confirming the position in Zanuttini and Portner (2003); Beyssade (2009).

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## VIELEN DANK!

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## References I

- Abels, K. (2010, apr). Factivity in exclamatives is a presupposition. *Studia Linguistica* 64(1), 141–157.
- Beyssade, C. (2009). Exclamation and presupposition. In P. Egré and G. Magri (Eds.), *Presuppositions and implicatures: Proceedings of the MIT-Paris Workshop*, Number May, pp. 123–137. Cambridge MA: OpenEdition.
- Castroviejo, E. (2008). Deconstructing Exclamations. *Catalan Journal of Linguistics* 7(Exclamatives at the Interfaces), 41–90.
- Gazdar, G. (1979). A solution to the projection problem. In C. Oh and D. Dineen (Eds.), *Presuppositions*, Volume 11, pp. 57–89. Academic Press.
- Geurts, B. (1999). *Presupposition and Pronouns*, Volume 3. Amsterdam: Elsevier.
- Grice, H. P. (1975). Logic and Conversation. In P. Cole and J. Morgan (Eds.), *Syntax and Semantics*, Volume 3, pp. 41–58. New York: Academic Press.

## References II

- Grice, H. P. (1981). Presupposition and Conversational Implicature. In P. Cole (Ed.), *Radical Pragmatics*, pp. 183–198. New York: Academic Press.
- Grimshaw, J. (1979). Complement selection and the lexicon. *Linguistic inquiry* 10(2), 279–326.
- Gutiérrez-Rexach, J. (1996). The semantics of exclamatives. In E. Garrett and F. Lee (Eds.), *Syntax at Sunset. UCLA Working Papers in Linguistics*, pp. 146–162. Los Angeles: UCLA.
- Gutiérrez-Rexach, J. (2008). Spanish Root Exclamatives at the Syntax / Semantics Interface. *Catalan Journal of Linguistics* 7, 117–133.
- Heim, I. (1983). On the projection problem for presuppositions. In *Formal semantics—the essential readings*, pp. 249–260. Blackwell.
- Karttunen, L. (1973). Presuppositions of Compound Sentences. *Linguistic Inquiry* 4(2), 169–193.
- Mayol, L. and E. Castroviejo (2013, may). How to cancel an implicature. *Journal of Pragmatics* 50(1), 84–104.

## References III

- Potts, C. (2005). *The logic of conventional implicatures*. Number 7. Oxford University Press on Demand.
- Potts, C. (2007). The expressive dimension. *Theoretical Linguistics* 33(2), 165–198.
- Roberts, C. (2011). Only: A case study in projective meaning. *Baltic International Yearbook of Cognition, Logic and Communication* 6(1), 14.
- Roberts, C. (2012, dec). Information structure in discourse: Towards an integrated formal theory of pragmatics. *Semantics and Pragmatics* 49 (Papers), 91–136.
- Tonhauser, J., D. Beaver, C. Roberts, and M. Simons (2013). Toward a Taxonomy of Projective Content. *Language* 89(1), 66–109.
- van der Sandt, R. (1992). Presupposition projection as anaphora resolution. *Journal of semantics* 9(4), 333–377.
- Zanuttini, R. and P. Portner (2003, mar). Exclamative Clauses: At the Syntax-Semantics Interface. *Language* 79(1), 39–81.