# 5

# At-Issue Material in Spanish Degree Exclamatives

# An Experimental Study

Xavier Villalba

# 1. Introduction: Levels of Meaning in Exclamatives

Since the initial studies in the seventies by Dale Elliott (1971, 1974), the exact categorization of the meanings conveyed by exclamatives has been a matter of debate, particularly concerning two main aspects: factivity and high degree. Hence, an exclamative sentence like (1) is commonly assumed (since Grimshaw, 1979) to involve the ascription of a property (2) and high degree meaning in (3).

- ¡Qué alta es María! What tall.F is Mary 'How tall Mary is!'
- (2) Mary is tall.
- (3) Mary is tall beyond expectation.

I would like to thank Ignacio Bosque for his very useful comments and suggestions. Needless to say, all possible remaining errors are my own. This work was possible thanks to project FFI2104-52015 Compositionality of meaning. Theoretical and empirical perspectives awarded to UAB.

As for the ascription of a property, Elliott (1971, 1974) originally observed that exclamative clauses can only be selected by factive predicates, as the following pair shows:

(4) a. It's amazing how very expensive this wine is. b. \*I asked how very expensive this wine was.

Grimshaw (1979, p. 320) took Elliott's observation a step further and argued that exclamatives were inherently factive:

The claim that I want to make here is that in exclamations, what can be termed the "propositional content" is inherently presupposed. For an exclamation to be used appropriately, it must always be true that the corresponding proposition is presupposed to be true. The 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.

Consequently, Grimshaw (1979) could explain the fact that exclamatives made bad answers, for their content was presupposed (her ex. 150; the # mark is added), just as happened with the presuppositional constructions in (3) (for new arguments, see also Abels, 2010):

(5) Question: How tall is John?

Answer: Very tall.

Answer: #How tall John is!

(6) Question: Did John leave? Answer: #It's odd that he did. Answer: #I'd forgotten that he did.

Questioning whether a proposition p entails that p is not part of the common ground, hence *p* cannot be taken for granted in the answer. A similar contrast exists in the following pair of sentences:1

- (7) a. She said that Peter quitted his job. Me, too.
  - = "I said that, too."/"I will quit my job, too."
  - b. She was surprised that Peter quitted her job. Me, too.
    - = "I was surprised, too."/#"I will quit my job, too."

<sup>1.</sup> I am thankful to Ignacio Bosque for noting to me the relevance of these kind of examples.

The proposition selected by the factive predicate "be surprised" is clearly part of the background and cannot be reprised by the anaphoric element too.

Therefore, the received view is that the meaning in (2) is a presupposition—but see Castroviejo (2008a), Mayol (2008), and Beyssade (2009) for a different view and Abels (2010) for a positive reassessment of Grimshaw's analysis.

In contrast, the high degree meaning associated with exclamatives (3) has proved harder to classify. While some scholars argue it is a presupposition following from the presence of a higher order illocutionary operator (Gutierrez-Rexach, 1996, 2008), others defend the view that it is a conventional implicature generated by the semantic operation of domain extension ("widening") (Zanuttini & Portner, 2003). For example, Gutierrez-Rexach (1996) argues for a similar semantics for degree interrogatives and exclamatives based on a maximality operator (MAX) over degrees (d), which involves the presupposition of maximal degree. For instance, he proposes the following basic semantic representation for interrogative cases:

- (8) How tall is John?
- (9)  $p = d [p(w) & p = \lambda w'[d = MAX(\lambda d'[tall(w')(j,d')])]]$

The formula in (9) reads as "What is the maximal degree d such that John is d-tall?" The exclamative sentence is obtained with the addition of an illocutionary intensional operator EXC on propositions, speakers (a), and worlds (w):<sup>2</sup>

- (10) ¡{Qué/lo} alto que es Juan! what/the-N tall that is Juan 'How tall Juan is!'
- (11) EXC(a)(w)( $\iota p \text{ } \exists d \text{ } [p(w) \& p = \lambda w'[d = MAX(\lambda d'[tall(w')(j,d')])])$

The formula in (10) reads as follows: "the speaker expresses an attitude (surprise, admiration, amazement) toward the fact that Juan is d-tall, where d is Juan's [maximal; XV] "degree of tallness (his height)" Gutierrez-Rexach (2008, p. 120).

Moreover, to capture the meaning of (9), one must encode the crucial fact that what really counts as a standard for height in an exclamative is

<sup>2.</sup> Gutiérrez-Rexach assigns this higher-order operator the type <i,<s,<<s,t>,t>>>, where *i* corresponds to the type of the speaker's variable and *s* to the type of the world variable.

not the normal standard or the standard salient in the current common ground, but rather the speaker's expectations (hence the surprise meaning typically associated with exclamatives). This semantic ingredient is assumed by Gutierrez-Rexach (1996, 2008) to be a presupposition:

It would seem more adequate to treat this property 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. (Gutierrez-Rexach, 2008, p. 121)

Castroviejo (2008a, sec. 3.2) pursues a different track and argues that exclamatives lack any assertive content, but rather convey a background descriptive content (i.e., "Mary is tall to a high degree") and a derived "expressive presupposition" (i.e., "I am surprised [that Mary is tall to a high degree]"), following Schlenker's (2007) analysis of expressive constructions. The concept of "expressive presupposition" is important, for it departs from the basic tenets of the classical presupposition theory stemming from Karttunen (1973) and Stalnaker (1974), which is based on the assumption that a presupposition must be entailed by the speakers' common ground. Besides standard presuppositions in this sense, Stalnaker (1978) crucially includes in his discourse model the idea of accommodation (see also Lewis, 1979). Since these presuppositions modify the common ground rather than being entailed by it, one can technically label them "informative presuppositions." Yet, as Stalnaker remarks in latter work (Stalnaker, 2008, p. 542), even though informative, they are an inappropriate means to add new or controversial information to the common ground, for the accommodated presupposed content remains part of the common ground even if one rejects the asserted content they piggyback on. Castroviejo (2008a, p. 59) extends this idea to exclamatives in full:

Moreover, expressing the speaker's emotional attitude does not modify the Common Ground like an assertion, but rather the same way as the goat does in Stalnaker's example above (see section 2.2); it is a nonlinguistic factor that models what mutual knowledge the participants in a conversation have. From the moment that a speaker utters an exclamative, the rest of the participants infer that s/he is emotional because of somebody's high degree of ADJ-ness, this becomes part of the Common Ground and influences the conversation.

In the Stalnakerian model, one must buy the presupposition, but can reject the asserted part. However, it is unclear then whether exclamatives involve any asserted content altogether.

Other scholars follow a different line of argumentation to account for this high/extreme degree. For example, Zanuttini and Portner (2003) analyze it as a conventional implicature (hence, pragmatic in nature) deriving from the semantic operation of "widening" involved in exclamatives, which places an individual in the extended interval built over the previous standard scale denoted by the predicate. The mechanism of widening is formally defined by Zanuttini and Portner (2003, p. 52) as follows:

#### Widening

For any clause S containing R<sub>widening</sub>, widen the initial domain of quantification for R<sub>widening</sub>, D<sub>1</sub>, to a new domain, D<sub>2</sub>, such that

In prose, condition (i) requires that the extension of the domain include at least a new element, and condition (ii) states that any element of the widened domain not present in the initial domain must occupy a higher position in the scale than any element of the initial domain, i.e., the scale must be extended by its extreme. According to Zanuttini and Portner, this condition forces the generation of a conventional implicature of high/extreme degree. To support their analysis, they point out that the implicature cannot be conversational, for it is neither calculable, cancelable, or detachable (Grice, 1975, 1978, 1981), and offer the following examples:<sup>3</sup>

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

In (12a) one can see that the high/extreme degree implicature cannot be canceled, and (12b) is intended to show that the implicature is attached to the exclamative form, not to the meaning of the sentence.<sup>4</sup>

<sup>3.</sup> The implicature cannot be calculated from the interaction of Grice's cooperative principle with any conversational maxim, unlike typical scalar conversational implicatures, which arise from apparent violations of the maxim of quantity.

<sup>4.</sup> Ignacio Bosque (personal communication) notes that wh-exclamatives are typically odd with concessive or adversative codas (his examples):

However, this characterization is controversial. On the one hand, as pointed out by Castroviejo (2006), continuations that do not cancel the implicature yield bad results as well (her exs. [79] and [81]):

(13) 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.

Note that the last example explicitly reasserts the high-degree implicature, which leads her to conclude that the problem has to do with the combination of two different speech acts, an exclamation and an assertion. I will turn back to cancellation in section 2.

On the other hand, it is far from being settled that the implicature is non-detachable. Villalba (2003) considers the case of Spanish hidden exclamatives (see Masullo, 1999), like the following:

(14) a. ¡Marta es de buena!

Marta is of good.F

'Marta is so good!'

b. ¡El chico es de travieso!

The boy is of naughty

'The boy is so naughty!'

Crucially, the application of the standard defeasibility test leads to the conclusion that this construction *does* carry the scalar implicature associated with overt exclamatives, which, consequently, cannot be attached to the exclamative form:

(15) a. ¡Marta es de buena! #Si es que lo es. Marta is of good.F if is that it is 'Marta is so good! #If at all.'

(i) a. \*¡Qué calor hace, aunque se está bien aquí! 'How hot it is, even though it is fine in here!'

b. \*¡Cuánto dinero tiene Trump, pero no sabe emplearlo! 'How much money Trump has, but he doesn't know how to use it!'

one minor alterations ameliorate the centences, which suggests that the problem is

Yet, some minor alterations ameliorate the sentences, which suggests that the problem is not a general incompatibility, but rather a pragmatic effect:

(ii) a. ¡Qué calor hace, a pesar de tener aire acondicionado!
 'How hot it is, even though the air conditioning is on!'
 b. ¡Cuánto dinero tiene Trump, pero qué mal que lo emplea!
 'How much money Trump has, but how bad he uses it!'

b. ¡El chico es de travieso! #Aunque no demasiado. the boy is of naughty although not too.much 'The boy is so naughty! #Although not much.'

Hence, the conventional implicature defended by Zanuttini and Portner (2003) seems highly problematic and must be rethought on different grounds (see Villalba, 2008b). To sum up, our actual knowledge of the level of meanings involved in exclamative sentences is at best incomplete and points toward the somewhat disturbing fact that none of their meanings is asserted—indeed, Castroviejo's (2008a) position.

In this chapter I will attack the issue directly on the basis of our current understanding of the behavior of presuppositions and implicatures in order to determine the exact nature of the two meaning aspects associated with Spanish degree exclamatives (section 2). To help this task, in section 3, I will present the results of two experiments involving the interpretation and evaluation of these two meanings, which were aimed at offering psycholinguistic evidence for establishing which meanings are asserted ("at-issue") and which are backgrounded. The results will be discussed in section 4, where I will present some generalizations concerning the levels of meaning involved in Spanish degree exclamatives. Finally, section 5 will include the conclusions and pending issues.

# 2. An Experimental Approach to Exclamatives

While the debate described in the previous section has been lively and interesting on theoretical grounds, it has been alien to the current developments of experimental semantics and pragmatics (see, for instance, the papers in Noveck & Sperber, 2004; Sauerland & Yatsushiro, 2009; and Meibauer & Steinbach, 2011). In this chapter I offer a different point of view on the issue by taking into account a finer-grained typology of meanings stemming from Potts's (2005) approach to expressives, Roberts's (2011) extensive discussion of "only," and Tonhauser et al.'s (2013) study of projective content. My departing point will be the following typology of meanings, as presented in Mayol and Castroviejo (2013, p. 86):

• 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 (it corresponds more or less to Grice's "what is said").

- Conversational implicatures: content inferred from the at-issue meaning with the help of general conversational principles (Grice, 1975, 1978, 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 conventional implicatures), which cannot address the current QUD. (Roberts, 1996)

As can be easily appreciated, the typology redefines the original Gricean picture including the insights of Potts's (2005) influential analysis of conventional implicatures as semantic contributions and Roberts's (1996) QUD as a guideline for helping us determine which content is at-issue.

By extending this idea to degree exclamatives, one can predict that, if presupposed, both meanings of exclamatives should be equally hard to be denied or corrected, for none of them would address the QUD.<sup>5</sup> That is, I could test the following patterns:

(16) a. ¡Qué alta es María! What tall.F is Mary 'How tall Mary is!'

b. No es cierto: no es alta. Not is true not is tall.F 'That's not true: she is not tall.'

b.' No es cierto: es alta, pero no tanto.

Not is true is tall. F but not so-much 'That's not true: she is tall, but not so tall.'

While the denial that Mary is tall (16a) seems perfectly natural to me, the one affecting just the degree part (16b) sounds less felicitous. If denials are fine for at-issue content only, one could thus conclude (1) that the "degree-beyondexpectation" meaning is not part of the at-issue meaning of exclamatives and (2) that the ascription to Mary of the property of being tall is at-issue content.

To sum up, the availability of felicitous denial seems a proper test to ascertain which part of the meaning of an exclamative sentence is at-issue, and I state the hypothesis that the property part is at-issue meaning, whereas the high

<sup>5.</sup> The complexities of the operations involved in denial are discussed at length in Geurts (1998). See also Mayol and Castroviejo (2013) for the cancellation of implicatures.

degree part is projective meaning. In order to test this hypothesis, I designed two experiments, which are described in detail in the following section.

### 3. Experimental Evidence for At-Issueness

In both cases, this experimental aspect of the research was intended to help us categorize the meanings involved in Spanish degree exclamatives, particularly its exact at-issue content. The departing idea was that the more a particular content was perceived as at-issue, the more it would be subject to denial. Hence, the experiments were designed to test this hypothesis both from an interpretation task (experiment 1) and from an evaluation task (experiment 2).

#### 3.1. EXPERIMENT 1

The first experiment aimed at testing the preferred interpretation of a 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-issueness.

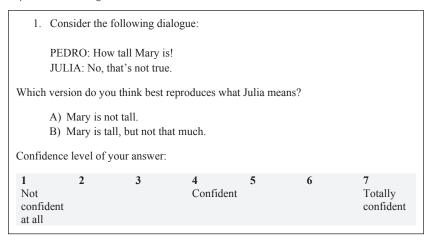
#### 3.1.1. Participants

The participants were 37 Spanish first course undergraduate students of the Faculty of Arts of the Universitat Autònoma de Barcelona (Catalonia, Spain). None had any training in linguistics.

#### 3.1.2. Method and Procedure

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. All the target items shared the following structure. First, a two-line dialogue between Pedro and Julia, where Pedro always uttered a degree exclamative (e.g., "How tall Mary is!") and Julia always replied denying such an utterance

Figure 5.1.
Reproduction of Target Item



ambiguously ("No, that's not true"). Then participants were faced with two options for interpreting Julia's reply: 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: four targets had one order and the other four targets had the opposite order. Moreover, since the participants had a closed twofold option, a confidence evaluation was included by means of a seven-degree Likert-scale. A real target item is reproduced in figure 5.1 (all the materials were in Spanish). The degree-exclamative uttered by Pedro changed in each item to avoid adjective repetition, and the form of the options was consistent throughout the experiment (17a), with the exception of item 3 (17b), which served as a test of the influence of the form of the reply:

```
(17) a. x es ADJ, pero no tanto.
x is ADJ but not so-much
'x is ADJ but not that much.'
b. x no es tan ADJ.
x not is so ADJ
'x is not so ADJ.'
```

Fillers shared the structure, but they involved no exclamative. Moreover, two fillers served as attention controllers. The test included eight target items and eight fillers, which were presented in alternation, beginning with a target. Each item was displayed on the screen for one minute and fifteen seconds.

	,	•			
	Denial of Property		Denial	of High Degree	Confidence (1–7 scale)
	#	0/0	#	%	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
totals	204	68.91	92	31.08	5.12

Table 5.1. Frequency of Answers to Experiment 1 and Confidence Level

#### 3.1.3. Results

The results showed that the denial of the property ascription ("Mary is not Adj") was perceived as more natural (68.91%) than the denial of the high degree ("Mary is Adj, but not that much") (31.08%), with an average confidence level of 5.12 out of 7; see Table 5.1 for details. Only one item (#3) broke this general pattern: the denial of the high degree was found more natural in 78.37% of the cases, against 21.62% who found the denial of the property more natural. If this case was discarded, the preference for property-denial boosted up to 75.67%. As for the confidence level, informants 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).

#### 3.2. EXPERIMENT 2

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 experiment 1, informants were presented with three different replies that they had to evaluate using a Likert scale:

• assertion of the property plus denial of the high degree ("Yes, that's true, but John is not so tall");

Figure 5.2.

Example of Target Item of Experiment 2

#### 1.

Consider the following dialogue:

PEDRO: How fat Alberto is!

JULIA: That's not true: he is not so fat.

#### How natural is Julia's reply?

utterly	very	strange	a bit	not very	quite	perfectly
nonsense	strange		strange	natural	natural	natural
1	2	3	4	5	6	7

- 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.

#### 3.2.1. Participants

The participants were 27 Spanish final course undergraduate students of the Faculty of Arts of the Universitat Autònoma de Barcelona (Catalonia, Spain). They had at least basic training in linguistics.

#### 3.2.2. Method and Procedure

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. All the target items involved a two-line dialogue between Pedro and Julia, and participants were asked to evaluate the naturalness of Julia's reply using a seven-level Likert scale. Target items always involved a degree exclamative 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 (= nine targets + nine fillers) were created to avoid informants being confronted with different replies by Julia to the same utterance by Pedro. List 1 was answered by ten participants, list 2 by seven, and list 3 by ten. Informants had 18 minutes to answer the questionnaire. A real target item is reproduced in figure 5.2 (all the materials were in Spanish).

#### 3.2.3. Results

The first option ("It is true, but X is not so Adj") was judged by informants as the least natural, with an average naturalness value of 3.23 out of 7. Direct denials were found far more natural: 5.72 for the denial of the property ("No, that's not true: X is not Adj") and 5.79 for the denial of the high degree ("No, that's not true: X is not so Adj"). Hence, there was no clear preference for any denial option, and standard deviation suggested no particular difference between them. The results for each item are displayed in Table 4. The sharp contrast between the first option, on the one hand, and the other two, on the other, can be easily grasped in figure 5.3.

#### 4. Discussion

#### 4.1. EXPERIMENT 1

Our initial expectation was that only the at-issue meaning of exclamatives would be cancellable. The results of experiment 1 (see o) show that such an expectation was only fulfilled by the predication of the property (i.e., "Mary is tall"), but not for the high degree part ("Mary is tall to an unexpected degree"). The denial of the former was perceived as more natural (68.91%) than the denial of the latter (31.08%), which strongly suggests that hearers do not take the high degree involved in exclamatives as something at issue and hence subject to denial. This was so in 68.91% of the cases, with just one item (#3) falling outside the general pattern. In this case, when confronted with the dialogue in (18) 78.37% of the participants found the interpretation "It is not so slow" more natural, as opposed to 21.62% who found the reply "It is fast" more natural.

**Table 5.2.**Results of Naturalness Test for Experiment 2

Item         "Yes, that's true, but X is not so Adj"         "No, that's not true: X is not Adj"         "No, that's not true: X is not so Adj"           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				
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	Item		•	"No, that's not true: X is not so Adj"
6 3.5 6.9 6.0 8 3.1 4.5 5.6 10 3.4 5.7 5.3	2	3.5	6.0	6.4
8       3.1       4.5       5.6         10       3.4       5.7       5.3	4	3.1	4.9	6.5
10 3.4 5.7 5.3	6	3.5	6.9	6.0
200	8	3.1	4.5	5.6
<b>12</b> 3.2 6.8 6.0	10	3.4	5.7	5.3
	12	3.2	6.8	6.0
<b>14</b> 3.2 5.1 5.6	14	3.2	5.1	5.6
<b>16</b> 2.7 6.3 5.0	16	2.7	6.3	5.0
<b>18</b> 3.4 5.3 5.7	18	3.4	5.3	5.7
Average         3.23         5.72         5.79	Average	3.23	5.72	5.79
Standard Deviation         0.25         0.84         0.48	Standard Deviation	0.25	0.84	0.48

(18) PEDRO: How slow this computer is! IULIA: That's not true.

This was maybe due to the particular form of the reply, which did not include an explicit assertion of the predicate: "It is not so slow" vs. the general pattern, "It is slow, but not so slow," found in all other target items. Therefore, the different phrasing of the offered reading might be a potential disturbing factor to be taken into account carefully in future experiments.

Once this case is discounted, if Mayol and Castroviejo (2013) are correct in linking cancelation and QUD, this experiment half confirms and half corrects the received wisdom on the levels of meaning in exclamatives. On the one hand, it confirms that the high degree meaning is not part of the at-issue meaning of exclamatives, in accordance with the presupposition and the implicature analyses discussed in section 2. On the other hand, the fact that informants easily cancelled the property involved in the exclamative argues against Grimshaw's (1979, p. 320) claim—and Abels's (2010) revival—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." Moreover, these data seem hard to conciliate with Castroviejo's (2008a) analysis of exclamatives as involving no asserted part at all (see section 1).

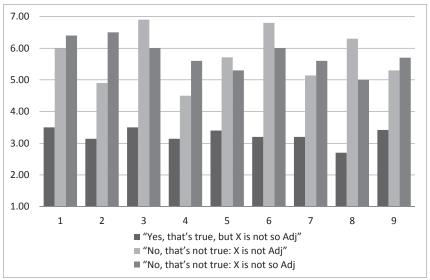


Figure 5.3.

Naturalness Evaluation Results of Experiment 2 on a 1—7 Likert Scale

#### 4.2. EXPERIMENT 2

Our second experiment aimed at testing the availability of denial from a naturalness evaluation task. The results did not perfectly match those of the first, for informants did not show a clear pattern concerning the material at-issue. On the one hand, denial of the property ("No, that's not true: X is not Adj") was judged quite natural (5.72 out of 7), in accordance with the results of experiment 1. On the other hand, denial of the high degree part was judged very differently regarding the form of the answer: whereas positive endorsement plus denial of the high degree ("Yes, that's true, but X is not so Adj") was perceived as the least natural (an average of 3.24 out of 7), negative denials of the high degree ("No, that's not true: X is not so Adj") were judged as the most natural option (a 5.78 average). These data are certainly difficult to interpret straightforwardly, but it seems clear that denial of high degree is not unnatural per se, as the latter case shows: it was rated even better than the denial of the property. This suggests that the poor rating of positive endorsement plus denial of the high degree should be interpreted as evidence that confirmations are perceived as endorsing all levels of meaning of

exclamatives, namely both the property and the high degree, which yielded a contradictory feeling when denying the high degree part. In contrast, the strong denial ("No, that's not true: X is not Adj") wasn't restricted this way.

The overall picture arising from these experimental data is far from being crystal clear, but allows us to raise some generalizations. First, the ascription of the property in exclamatives is subject to denial, which clearly suggests it is (part of) the at-issue meaning of exclamatives, against Grimshaw's (1979) original claim and Abels's (2010) restatement. In contrast, the high degree meaning has proven more stubborn to classify: experiment 1 suggested that it is not part of the at-issue meaning, but this was only partially confirmed by experiment 2.

#### 5. Conclusions

In this chapter I have offered empirical evidence concerning the nature of the levels of meaning involved in Spanish degree exclamatives. Particularly, by means of two denial experiments I have tested what speakers perceive as the at-issue meaning of an exclamative. The interpretation experiment showed that they more easily cancel the ascription of the property (i.e., "Mary is tall") than the high degree part (i.e., "Mary is taller than expected"), which was interpreted as evidence that only the former meaning was clearly at-issue.

The evaluation experiment yielded less clear results. It confirmed that denial of the ascription of the property was natural and hence part of the atissue meaning. Yet in contrast with the former experiment, the denial of the high degree part showed a split behavior depending on the form: endorsement of the exclamative plus denial was clearly unnatural, in accordance with data in the interpretation experiment, but denial of the exclamative plus denial of the high degree was judged natural.

On the whole, our research contradicted the received wisdom, since Elliott (1974) that the core property ascription in exclamatives is presupposed. Rather, I have found in both experiments that this meaning is clearly at-issue and hence amenable to denial. In contrast, the high degree meaning has been found much harder to deny (but not impossible), in accordance with standard assumptions. However, to confirm this fact, and crucially to determine its exact nature as a presupposition or as a conventional implicature, further experimental research is needed on the projective behavior of this meaning.

## Appendix: Items Included in Experiment 1

1.

PEDRO: ¡Qué alta que es María!

'How tall María is!'

JULIA: No, no es verdad.

'No, that's not true.'

A) María no es alta.

'María is not tall.'

B) María es alta pero no tanto.

'María is tall, but not that much.'

#### 2. (filler)

PEDRO: La cerveza caliente es deliciosa.

'Hot beer is delicious.'

JULIA: No, no es verdad.

'No, that's not true.'

'Does Pedro like beer?'

A) Sí.

'Yes.'

B) Sí, pero fría.

'He does, but cold.'

#### 3.

PEDRO: ¡Qué lento que es este ordenador!

'How slow this computer is!'

JULIA: No, no es verdad.

'No, that's not true.'

A) El ordenador no es tan lento.

'The computer is not so slow.'

B) El ordenador es rápido.

'The computer is quick.'

#### 4. (Filler)

PEDRO: La cerveza caliente es deliciosa.

'Hot beer is delicious.'

JULIA: No, no es verdad.

'No, that's not true.'

'Do Pedro and Julia agree?'

A) Siempre.

'Always.'

B) No.

'No.'

5.

PEDRO: ¡Qué aburrida es María!

'How boring María is!'

JULIA: No, no es verdad.

'No, that's not true.'

A) María es divertida.

'María is funny.'

B) María es aburrida pero no demasiado.

'María is boring, but not so much.'

6.

PEDRO: La cerveza caliente es deliciosa.

'Hot beer is delicious.'

JULIA: No, no es verdad.

'No, that's not true.'

'Does Julia like beer?'

A) Sí, pero fría.

'She does, but cold.'

B) No.

'No.'

7.

PEDRO: ¡Qué burro es Juan!

'How silly Juan is!'

JULIA: No, no es verdad.

'No, that's not true.'

A) Juan es burro, pero no tanto. 'Juan is silly, but not so much.'

B) Juan es listo.

'Juan is smart.'

8.

PEDRO: Messi es argentino.

'Messi is an Argentinian.'

JULIA: No, no es verdad.

'No, that's not true.'

A) Messi no es argentino.

'Messi is not an Argentinian.'

B) Miguel es argentino.

'Miguel is an Argentinian.'

9

PEDRO: ¡Qué fácil fue el examen!

'How easy the exam was!'

JULIA: No, no es verdad.

'No, that's not true.'

A) El examen no fue fácil.

'The exam was not easy.'

B) El examen fue fácil, pero no tanto.

'The exam was easy, but not so much.'

#### 10. (filler)

PEDRO: María vendrá mañana.

'María will come tomorrow.'

JULIA: No, no es verdad.

'No, that's not true.'

A) María vendrá otro día.

'María will come some other day.'

B) María no vendrá.

'María will not come.'

11.

PEDRO: ¡Qué lejos aparcó el coche!

'How far away she parked the car!'

JULIA: No, no es verdad.

'No, that's not true.'

A) Aparcó el coche lejos, pero no demasiado.

'She parked the car far away, but not so much.'

B) No aparcó el coche lejos.

'She did not park the car far away.'

#### 12.

PEDRO: En Italia no hay trabajo.

'There is no job in Italy.'

JULIA: No, no es verdad.

'No, that's not true.'

A) En Italia hay corrupción.

'There is corruption in Italy.'

B) En Italia hay mucho paro.

'There is much unemployment in Italy.'

#### 13.

PEDRO: ¡Qué pesada que fue la charla!

'How dull the talk was!'

JULIA: No, no es verdad.

'No, that's not true.'

A) La charla fue divertida.

'The talk was funny.'

B) La charla fue pesada, pero no tanto.

'The talk was dull, but not so much.'

14.

PEDRO: La idiota de María llegó tarde. 'That idiot María arrived late.'

JULIA: No, no es verdad. 'No, that's not true.'

A) María no llegó tarde.

'María did not arrived late.'

B) María no es idiota. 'María is not an idiot.'

15

PEDRO: ¡Qué borde se puso María! 'How naughty María behaved!'

JULIA: No, no es verdad. 'No, that's not true.'

A) María se puso borde, pero no demasiado. 'María behaved naughty, but not so much.'

B) María no se puso borde. 'María did not behave naughty.'

16.

PEDRO: La clase fue un aburrimiento. 'The class was an utter yawn.'

JULIA: No, no es verdad.
'No, that's not true.'

A) La clase no fue aburrida.
 'The class wasn't boring.'

B) La clase fue divertidísima. 'The class was very funny.'

17. (filler: common to all three lists)

PEDRO: María juega a baloncesto.

'María plays basketball.'

JULIA: Sí, es cierto, pero no es alta. 'That's true, but she is not tall.'

18.

PEDRO: ¡Qué amables que son tus vecinos!

'How kind your neighbors are!'

list A: JULIA: No es cierto: no son tan amables. 'That's not true: they are not so kind.'

list B: JULIA: Sí, es cierto, pero no son tan amables.

ist B: JULIA: Si, es cierto, pero no son tan amables. 'That's true, but they are not so kind.'

list C: JULIA: No es cierto: no son amables.

'That's not true: they are not kind.'