

## Though exclamation are not extremely amazing, how amazing they are!

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In the literature, exclamation have been almost exclusively approached from the point of view of the semantics of questions. However, the structure and distribution of *wh*-exclamation in Catalan indicates that, at least in this language, the semantics of exclamation has more to do with the semantics of degree than with the semantics of questions. The purpose of this talk is to propose a maximally simple account of these exclamation based on the semantics of degree which accounts for the range of special properties they have.

Both Gutiérrez-Rexach (1996) and Zanuttini & Portner (2003) argue that the denotation of an exclamation is the same as that of a question, in the sense of Karttunen (1977) and Groenendijk & Stokhof (1984). Based on the claim that questions denote a set of true/possible answers, these authors add a further element that turns the question into an exclamation.

Gutiérrez-Rexach postulates that there is an exclamation operator over propositions (EXC) of type  $\langle i, \langle s, \langle \langle s, t \rangle, t \rangle \rangle \rangle$  (where  $i$  is a speaker variable, represented by  $a$  in the formula) that applies to the proposition that comes out of the denotation of a question, which is interpreted here as the set of worlds in which my parents are as rich as they are in the actual world  $w$ .

(1) Bill found out **how rich my parents are**

(2) Find out ( $w$ ) ( $\lambda w' [\text{id}[\text{rich}(w)(\text{my parents}, d)] = \text{id}[\text{rich}(w')(\text{my parents}, d)]](\text{Bill})$ ) & EXC

( $a$ ) ( $w$ ) ( $\lambda w' [\text{id}[\text{rich}(w)(\text{my parents}, d)] = \text{id}[\text{rich}(w')(\text{my parents}, d)]]$ )

The bold-faced expression in (1) can be thought of being an embedded interrogative or an embedded exclamation. (2) shows the exclamation interpretation resulting from the presence of EXC. Specifically, (2) states that Bill found out the degree  $d$  such that the speaker is amazed that my parents are rich to degree  $d$ .

According to Zanuttini & Portner, exclamation undergo a pragmatic effect called *widening*: Both interrogatives and exclamation denote sets of propositions, but the set denoted by an exclamation (e.g. Domain 2 in (4)) is a superset of that denoted by the corresponding question (e.g. Domain 1 in (4)), widened to include non-standard alternatives.

(3) What things he eats!

(4) a. Domain 1 = {he eats poblanos, he eats serranos, he eats jalapeños}

b. Domain 2 = {he eats poblanos, he eats serranos, he eats jalapeños, he eats habaneros, he eats güeros}

I argue that these proposals run into a number of problems in view of the data from exclamation in Catalan. First, exclamation in Catalan do not embed in factive predicates, as they do in English. Actually, factive emotives do not even embed *wh*-questions, and cognitive factives embed *wh*-questions but not *wh*-exclamation.

(5) a. \*És increíble que alt que és en Pau  
'It's incredible how tall Pau is.'

b. \*És increíble què ha fet  
'It's incredible what he/she has done.'

(6) a. \*Ja sé que alt que és en Pau  
'I know how tall Pau is.'

b. Ja sé qui ha vingut  
'I know who came.'

The Catalan counterparts of these embedded exclamation correspond to embedded degree relatives (as in Gutiérrez-Rexach 1999). In addition, exclamation cannot be answered, so it does not seem desirable to try to give their denotation in terms of that of questions.

Under my account, exclamation are a special kind of degree construction, which contains a gradable adjective (*alt* in (7) and *good* in (8)) and a degree operator (*que* in (7), *tan* in (8)).

(7) **Que alt** que és en Pau!  
how tall that is the Pau  
'How tall Pau is!'

(8) Quina pel·lícula **tan bona** que he vist!  
what film so good that AUX.I seen  
'What a great movie I've watched!'

As for *wh*-movement, I argue that it is not responsible for domain widening. It is the degree operator *tan* ('so') or *que* (which I identify as *tan* [+wh]) that make it possible to refer to a high degree. The *wh*-component accounts for the well formedness of (7) and (8), which otherwise would be unacceptable:

(9) a. \*En Pau és tan alt  
'Pau is so tall.'

b. \*He vist una pel·lícula tan bona  
'I've watched such a great movie.'

Specifically, *wh*-movement allows the degree word *tan* to be licensed while at the same time turning a declarative sentence into a construction that updates the Common Ground by contributing the speaker's attitude towards the degree of a predicate that holds of an individual. Thus, the semantic content of the degree construction itself is not proffered but rather, it is treated as uncontroversial information, a fact, in terms of Ginzburg & Sag (2001). The following formulae paraphrase the semantic content of (7) and (8).

(10)  $\exists d[\text{tall}(p) \geq d]$ , where  $d$  is the minimal degree such that if  $p$  is at least  $d$ -tall, then the speaker holds an attitude towards that fact.

(11)  $\exists d\exists x[\text{movie}(x) \ \& \ \text{seen}(s,x) \ \& \ \text{good}(x) \geq d]$ , where  $d$  is the minimal degree such that if  $x$  is at least  $d$ -good, then the speaker holds an attitude towards that fact.

This analysis makes various correct predictions. First, it accounts for the entailment patterns related with exclamatives. Grimshaw (1979) argues that exclamatives are inherently factive because she construes the implication *How tall Bill is!*  $\rightarrow$  *Bill is tall* as a presupposition. However, it becomes clear that this is not a semantic requirement because other types of gradable adjectives such as closed-scale ones like *full* and *dry* (cf. Kennedy & McNally 2005) do not satisfy this implication: *How full the stadium is!* does not entail *The stadium is full*, nor *How dry the towel is!* that *The towel is dry*. Since in my analysis the degree operator merges directly with the gradable adjective (of type  $\langle e,d \rangle$ ), which has not previously combined with POS, the degree that is reached is not necessarily the standard degree associated with the gradable adjective.

Second, exclamatives in Catalan can be embedded by only perception verbs in the imperative mood, in the future tense and in polar questions. For example:

(12) Mira quin noi tan alt!  
'Look what a tall boy!'

In all such cases, the pragmatic attitude towards a fact can be embedded. In (12), the speaker has had an attitude towards the boy's degree of tallness and invites the addressee to have an attitude towards this fact, too. In contrast, factive predicates can select for a proposition, but not for a fact which has a pragmatic attitude associated with it.

Third, the unavailability of exclamatives as answers can be accounted for if we assume that the question in A needs to be answered by a proffered proposition (B1) and not a fact (B2).

(13)A: How tall is Pau? B1: Very tall B2:#How tall he is!

In sum, exclamatives are degree constructions that are associated with two kinds of information. There is a semantic content which states that the degree of which a predicate holds of an individual reaches a minimal level that is considered to be high; and there is a pragmatic effect that updates the Common Ground and which consists of the speaker having an attitude towards this fact.

## References

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