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# Comparison of two analyses of *wh*-exclamatives

LUSH  
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# Goals of the talk

- Argue that *wh*-exclamatives in Catalan are degree constructions.
- Show the differences between exclamatives and declaratives.
- Compare this approach with the analysis according to which exclamatives denote questions.

# Outline

- 1. Main claims**
- 2. The data**
- 3. Exclamatives as degree constructions**
- 4. Exclamatives vs. Declaratives**
- 5. Comparison with the question analysis**

# Outline

- 1. Main claims**
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- 4. Exclamatives vs. Declaratives**
- 5. Comparison with Zanuttini & Portner (2003)**

# Main claims

- **[Syntax]** Exclamatives are degree constructions. They must contain a DegP.
- **[Semantics]** The semantics of exclamatives does not stem from the semantics of questions, but from the semantics of degree.
- **[Pragmatics]** The descriptive content of an exclamative is taken for granted by the speaker and, hence, is not asserted. Exclamatives also include an implicated meaning: an attitude towards a degree.

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# The data > Exclamatives in Catalan

- **My object of study**

(1) Que entretinguda que va ser la pel·lícula!  
how entertaining that AUX.it to.be the movie  
'How entertaining the movie was!'

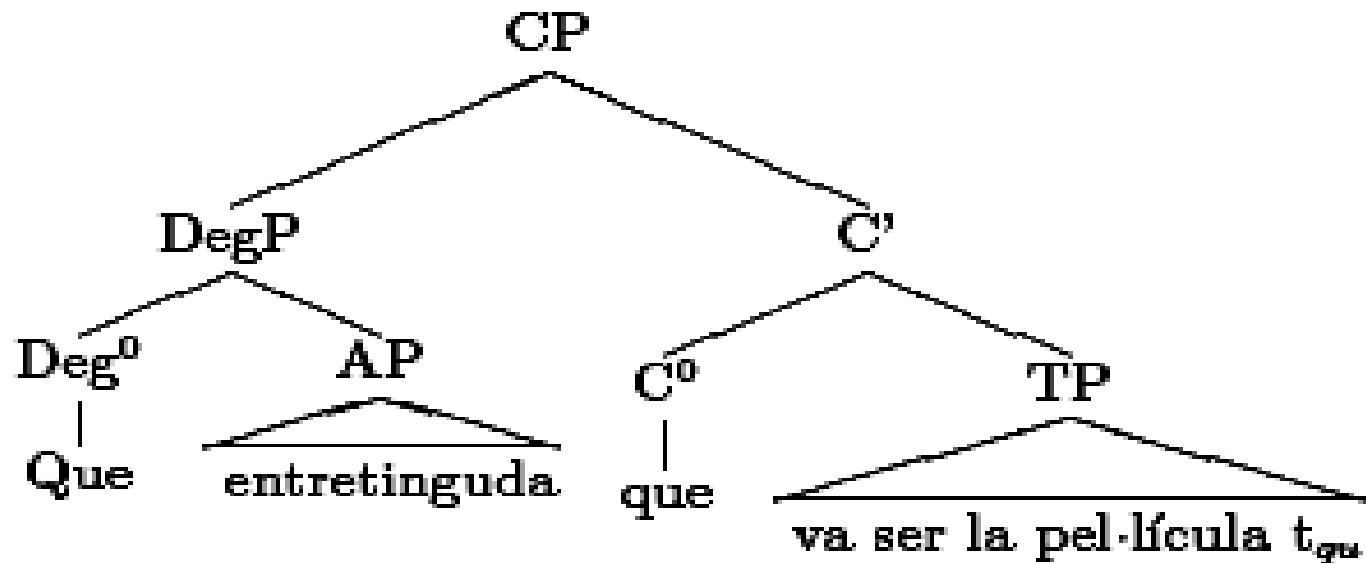
(2) Quina pel·lícula tan/més entretinguda que vam veure!  
what movie so/more entertaining that AUX.we to.see  
'What an entertaining movie we saw!'

## The data > Exclamatives in Catalan

- **My object of study**
  - Introduced by a *wh*-word: *que* and *quin*.
  - (Optional) presence of complementizer *que*.
  - Subject-verb inversion (as in interrogatives).
  - Presence of a DegP headed by *quel tan/més*.

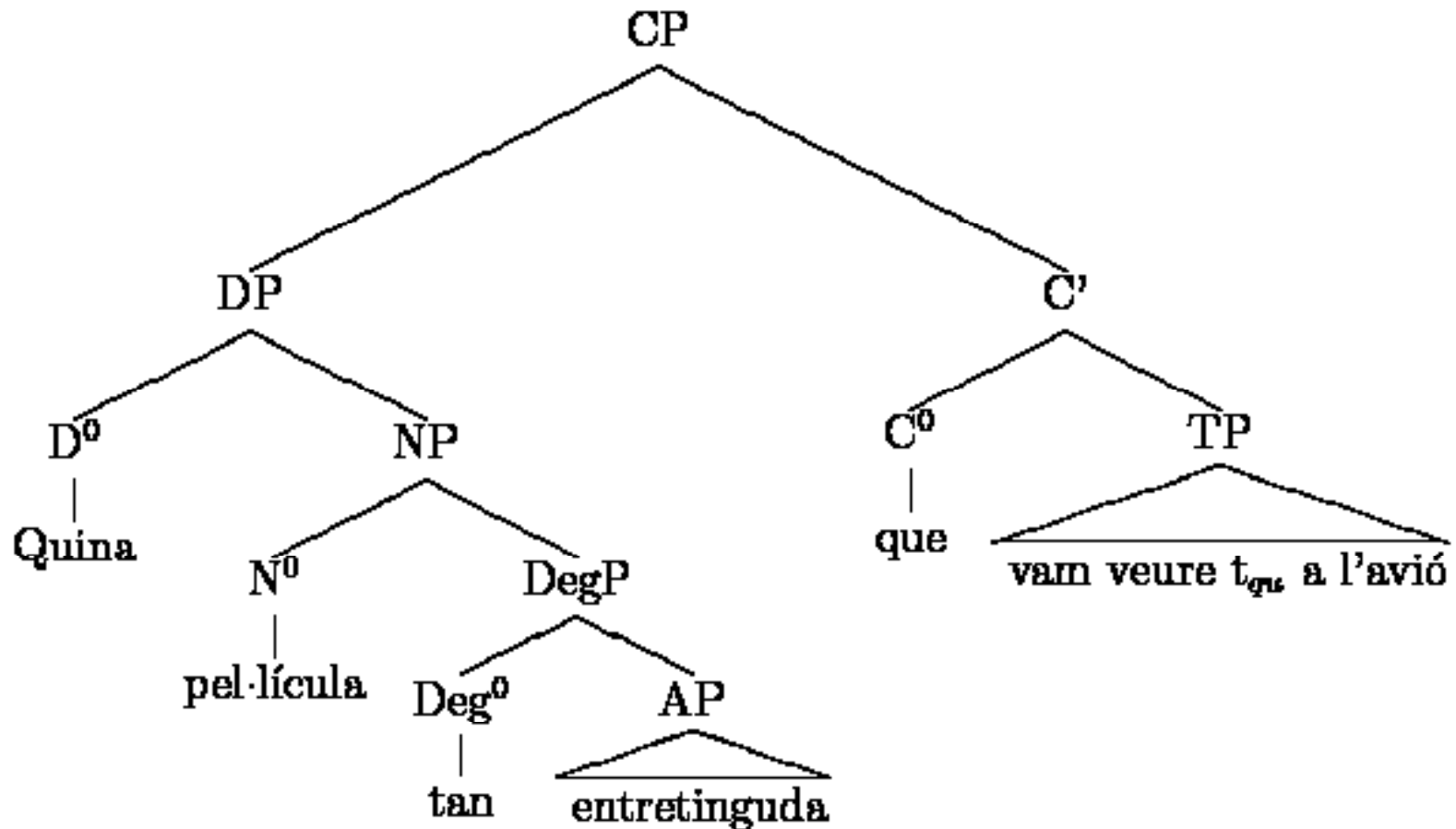
# The data > Exclamatives in Catalan

(1) Que entretinguda que va ser la pel·lícula!



## The data > Exclamatives in Catalan

(2) Quina pel·lícula tan entretinguda que vam veure!



## The data > Puzzles

- ***Wh*-exclamatives resemble *wh*-interrogatives, because:**
  - They are both introduced by a *wh*-word.
  - They both involve subject-verb inversion in some languages (e.g., Catalan and Spanish).
  - They are both selected by *wh*-embedding predicates.

## The data > Puzzles

- ***Wh*-exclamatives resemble *wh*-interrogatives, but:**
  - Not every *wh*-word that is available for an interrogative is available for an exclamative.
  - Exclamatives only embed in factive *wh*-embedding predicates.
  - Exclamatives do not make good questions.

## The data > Puzzles

- **Additional restrictions on exclamatives**
  - They are only compatible with adverbs indicating high-degree.
  - They do not make good questions, but cannot be used assertorically, either.

## The data > Puzzles > *wh*-words

- **Only a subset of the set of *wh*-words are available for exclamatives.**

(3) \*A qui hem vist!  
to who AUX.we seen  
'Who we have seen!'

(4) \*On ha anat la Maria!  
where AUX gone the M.  
'Where Mary has gone!'

## The data > Puzzles > Factivity

- **Exclamatives can only embed in factive predicates (Elliott 1974, Grimshaw 1979, Zanuttini & Portner 2003)**

# The data > Puzzles > Factivity

- **Factivity**: property attributed to a group of predicates that select for a propositional complement that is presupposed. (Kiparsky & Kiparsky 1970)
- (5) It's amazing that Lawrence arrived on time → Lawrence arrived on time.
- (6) I know that Lawrence arrived on time → Lawrence arrived on time.

## The data > Puzzles > Factivity

- (7) a. It's **amazing** how very tall Pau is.  
b. I **know** how very tall Pau is.
- (8) a. \*I **wonder** how very tall Pau is.  
b. \*I **don't know** how very tall Pau is.
- (9) a. **She** doesn't know how very tall Pau is.  
b. I **didn't** know how very tall Pau is.

## The data > Puzzles > Questions

- **Exclamatives do not make good questions (Grimshaw 1979).**

(10)A: How tall is Pau? B: 2.10 meters.

(11)A: How tall Pau is! B: #2.10 meters.

## The data > Puzzles > High degree

- **Exclamatives are only compatible with adverbs indicating high degree (Elliott 1971, 1974).**

(12) How very/extremely/unbelievably long he can stay underwater!

(13) \*How relatively/reasonably/fairly long he can stay under water!

## The data > Puzzles > Assertions

- **Exclamatives cannot be used assertorically and, hence, do not make good answers (Zanuttini & Portner 2003).**

(14)A: How tall is Pau?

(15)B1: Very tall.

(16)B2: #How tall he is!

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## Exclamatives as degree constructions

- **Exclamatives can only be introduced by:**

- ***Wh*-words that are degree/amount quantifiers at the same time.**

(15) [<sub>DegP</sub> Que entretinguda] que va ser la pel·lícula!

- ***Wh*-phrases that can include a DegP headed by *tan/més*.**

(16) [<sub>DP</sub> Quina pel·lícula [<sub>DegP</sub> tan/més entretinguda]] que vam veure!

## Exclamatives as degree constructions

- **Analogy with comparatives and result clause constructions**

(26) Quina pel·lícula **tan/més entretinguda** que vam veure!

(27) La pel·lícula va ser **tan entretinguda** que tothom va aplaudir.

‘The movie was so entertaining that everybody applauded.’

(28) La pel·lícula va ser **més entretinguda** que mai.

‘The movie was more entertaining than ever.’

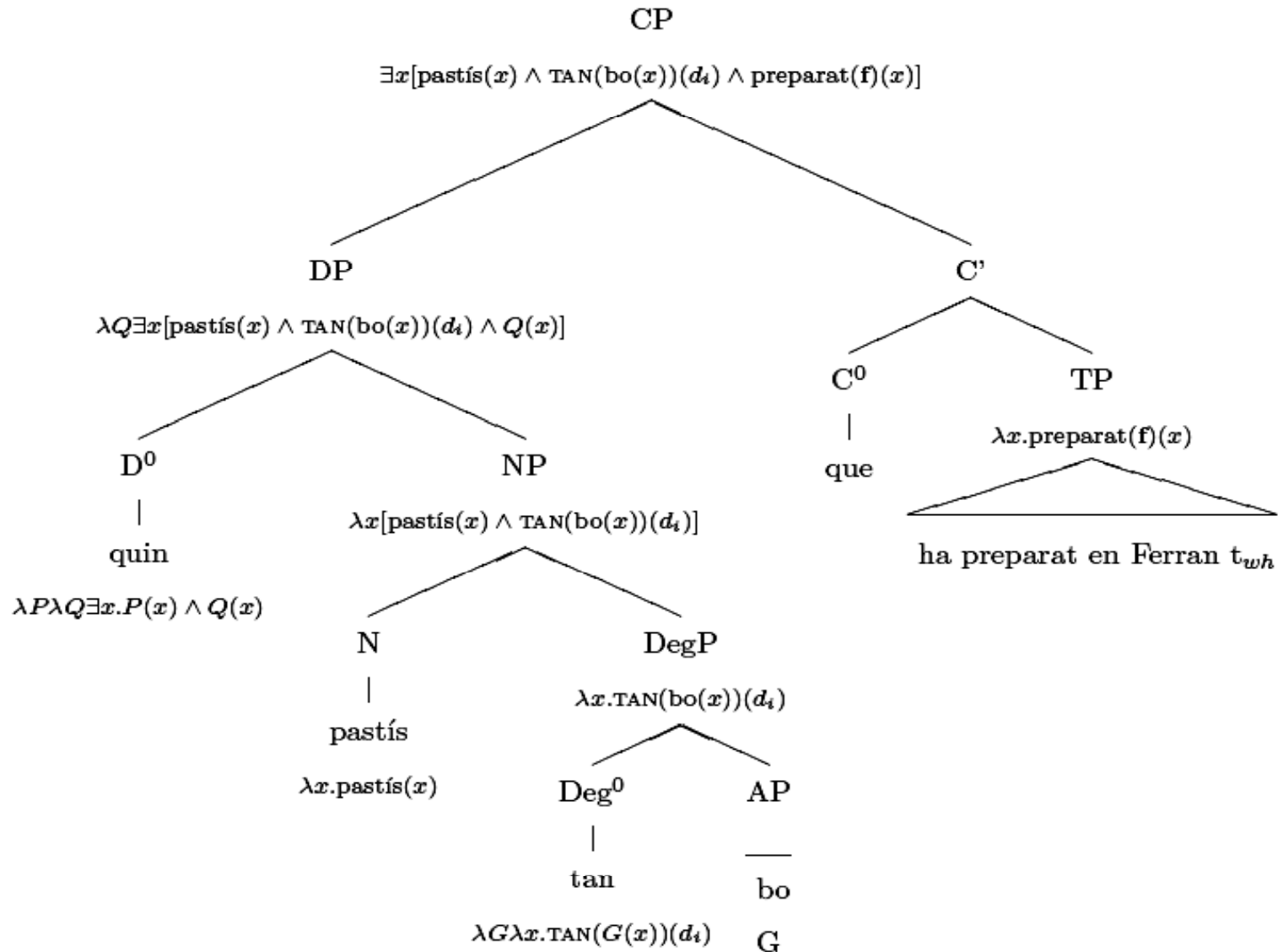
## Exclamatives as degree constructions

- **Assumptions about the degree operator in an exclamative clause**
    - *Que* ('how') and *tan* ('so') are semantically the same except for the fact that the former contains [+wh].
    - *Tan* is responsible for the fact that exclamatives indicate high degree:
- (20) a. En Pau no és **tan** alt.  
'Pau is not so tall.'
- b. Aquest noi **tan** alt vol ser jugador de bàsquet.  
'This boy so tall wants to be a basketball player.'

## Exclamatives as degree constructions

- *Tan* is a degree word that establishes a  $\succcurlyeq$  relation between a standard degree ( $d_S$ ) and a reference degree ( $d_R$ ), such that:
  - $d_R$  is the result of applying to an individual a gradable adjective interpreted as a measure function  $\langle e, d \rangle$ . Ex. **tall**(kareem) = 2.15 m.
  - $d_S$  is a standard taken from context and it is necessarily high.
- $[[\text{TAN}(d_R)(d_S)]] = 1$  iff  $d_R \succcurlyeq d_S$
- $T(\text{tan}) = \lambda G \langle e, d \rangle \lambda x \text{TAN}(G(x))(d_i)$

(21) Quin pastís tan bo que ha preparat en Ferran!  
 'What a good cake Ferran made!'



## Exclamatives as degree constructions

- Truth conditions for an exclamative clause:

[[Quin pastís tan bo que ha preparat en Ferran!]] = 1 iff  $\exists x[\text{cake}(x) \ \& \ \text{TAN}(\text{good}(x))(d_i) \ \& \ \text{prepared}(\mathbf{f})(x)]$

# Exclamatives as degree constructions

- **Factivity**

- **Degree modification in questions is interpreted contrastively:**

(31) [A conversation between two basketball managers]

A: All the players on this team are *very* tall.

B: Right, but how *very* tall is Pau?

A: I don't know how *very* tall he is, but you're going to like him.

(32) B wonders how *very* tall Pau is.

## Exclamatives as degree constructions

- For degree modification to be interpreted **evaluatively**, the speaker must be **committed** to the content of the clause (i).
  - Exclamatives involve the evaluation of a degree.
  - In an exclamative the speaker is committed to the content of the clause → they cannot be used as questions.

## Exclamatives as degree constructions

- For degree modification to be interpreted **evaluatively**, the speaker must be **committed** to the content of the clause (ii).
  - Factive predicates make sure the speaker is committed to the content of the clause → they may introduce exclamatives.
  - Non-factive *wh*-embedding predicates do not commit the speaker to the content of the clause → they cannot introduce exclamatives.

## Exclamatives as degree constructions

- **Interesting consequences so far:**
  - We can derive why only a few *wh*-words occur in exclamatives.
  - We explain that exclamatives involve high degree.
  - We understand why only factive verbs may introduce exclamatives.

## Exclamatives as degree constructions

- We realize that exclamatives are incompatible with the discourse function of asking questions.
- We still need to answer:
  - Why can't exclamatives be used as assertions?

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# Exclamatives vs. Declaratives

- **Distribution (i)**

- **Exclamatives cannot be used assertorically (i.e., to add information that the addressee doesn't already know.)**

(22) A: How tall is Pau?

B1: Very tall.

B2: #How tall he is!

(23) a. I've got some news/Listen to this/You're going to love this:  
Pau is very tall!

b. I've got some news news/Listen to this/You're going to love this:  
#How tall Pau is!

# Exclamatives vs. Declaratives

- **Distribution (ii)**
  - Exclamatives, like declaratives, can appear in contexts where the speaker believes the addressee is qualified to make a similar utterance (Gunlogson 2005).

# Exclamatives vs. Declaratives

- **Distribution (iii)**

(24)[Two people looking at the window]

- a. It's a wonderful day for a walk.
- b. What a wonderful day for a walk!

(25)[Two people watching a Barça game]

- a. Rijkaard is a wonderful coach, **right?**
- b. What a wonderful coach Rijkaard is!, **right?**

# Exclamatives vs. Declaratives

- **Proposal (i)**
  - Exclamatives contain two kinds of meaning: a **descriptive content** and an **implicated** meaning.
  - The descriptive content is taken for granted by the speaker, so what is **contributed to discourse** is the implicated meaning.

# Exclamatives vs. Declaratives

- **Proposal (ii)**
  - The implicated meaning is an **attitude towards a degree** (cf. Katz 2005).
  - Implicated meaning does not have assertive power.
  - This attitude **might** be an expressive meaning comparable to a conventional implicature as in Potts (2005).

# Exclamatives vs. Declaratives

(26) Quin pastís tan bo que ha preparat en Ferran!  
'What a good cake Ferran made!'

- **Descriptive content**:  $\exists x[\text{cake}(x) \ \& \ \text{TAN}(\text{good}(x))(d_i) \ \& \ \text{prepared}(\text{f})(x)]$
- **Discourse contribution**: the speaker experiences an attitude towards  $\wedge[\text{TAN}(\text{bo}(x))(d_i) ]$

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## Comparison with the question analysis

- **The question analysis (Zanuttini & Portner 2003)**
  - *Wh*-exclamatives are *wh*-clauses like *wh*-interrogatives.
  - *Wh*-exclamatives embed in *wh*-embedding predicates.
  - The analysis for *wh*-questions by Hamblin (1973), Karttunen (1977), etc., applies to *wh*-exclamatives.
  - Exclamatives denote a **set of alternatives**.
  - An additional ingredient must be included to explain why exclamatives do not behave like questions.

## Comparison with the question analysis

- **Exclamatives are factive**
  - Like questions, they denote a set of alternatives (i)

(27)  $[[\text{What does John eat?}]] = \{\text{'John eats poblanos'}, \text{'John eats serranos'}, \text{'John eats jalapeños'}\}$

(28)  $[[\text{What things John eats!}]]_w = \{p: p \text{ is true in } w \ \& \ \exists a [p = \text{'}a \text{ is a pepper \& John eats } a']\} = \{\text{'John eats poblanos'}, \text{'John eats serranos'}, \text{'John eats jalapeños'}\}$

## Comparison with the question analysis

- **Exclamatives are factive**
  - They presuppose the truth of the proposition  $p$  (ii)

(29) [[What does John eat?]] = {'John eats poblanos', 'John eats serranos', 'John eats jalapeños'}

(30) [[What things John eats!]] $_w$  = { $p$ :  $p$  is true in  $w$  &  $\exists a$  [ $p$  = ' $a$  is a pepper & John eats  $a$ ']} = {'John eats poblanos', 'John eats serranos', 'John eats jalapeños'}

## Comparison with the question analysis

- **Exclamatives are factive**
  - They include a factive morpheme **FACT**  
(iii)

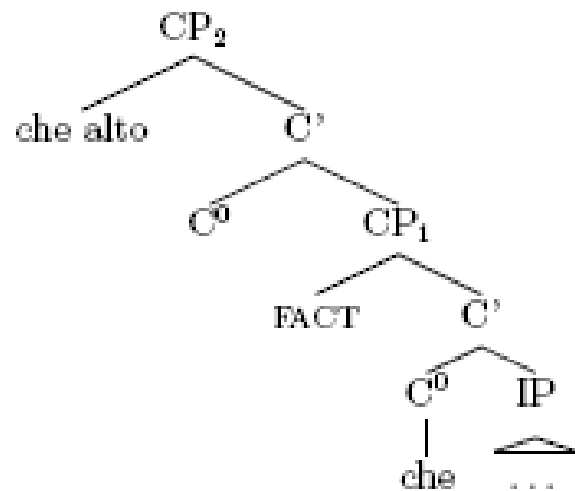
(31) a. Che alto che è!  
      `How tall he is!'

b. [<sub>CP</sub> che alto [[<sub>C</sub> ∅ [<sub>CP</sub> **FACT** [<sub>C</sub> che] TP ]]]

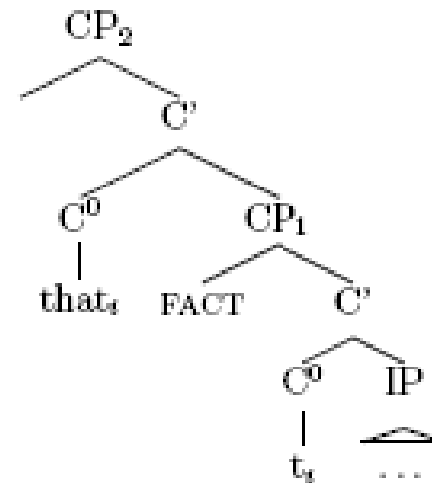
## Comparison with the question analysis

- **Exclamatives are *factive***
  - They include a factive morpheme **FACT** (iv)

(31) Che alto che è!



(32) John regrets that he fired M.



## Comparison with the question analysis

- **Exclamatives' sentential force is *Widening* (i)**
  - Widening is a pragmatic inference that arises from the union of [+wh] & FACT.
  - Widening expands the quantificational domain associated with the *wh*-clause (i.e., the standard answers to the question) to a broader domain (i.e., the unexpected answers to the question).

## Comparison with the question analysis

- **Exclamatives' sentential force is *Widening* (ii)**

(33)[[S]]<sub>D1</sub> = {eats(he,poblanos), eats(he,serranos),  
eats(he,jalapeños)}

(34)[[S]]<sub>D2</sub> = {eats(he,poblanos), eats(he,serranos),  
eats(he,jalapeños), eats(he,güeros),  
eats(he,habaneros)}

Presupposed *p*

## Comparison with the question analysis

- **Exclamatives' sentential force is *Widening* (iii)**
  - **Widening corresponds to the formalization of a scalar implicature according to which the proposition denoted by the clause lies at the extreme end of a scale.**

## Comparison with the question analysis

- **Exclamatives' sentential force is *Widening* (iv)**
  - **Exclamatives cannot be used as answers because one cannot respond to a question with presupposed information.**

(35)A: How tall is Bill? B: # How tall he is!

(36)A: Did John come to school yesterday? B: # It's odd that he did.

## Comparison with the question analysis

- **Exclamatives' sentential force is *Widening* (v)**
  - **Exclamatives cannot be used as questions, because the speaker already knows the answer by virtue of FACT.**

## Comparison with the question analysis

- **Factivity**

- **Degree analysis:** degree evaluation involves the speaker being acquainted with the value of the *wh*-variable.
- **Question analysis:** exclamatives contain a factive morpheme (FACT)

## Comparison with the question analysis

- **High degree**
  - **Degree analysis:** the presence of the degree operator *tan* (the degree that is reached by the individual must be high).
  - **Question analysis:** widening involves broadening the standard domain associated with the denotation of the *wh*-clause.

## Comparison with the question analysis

- **Question/answers**
  - **Degree analysis:** commitment of the speaker → not questions; descriptive content taken for granted → not assertions.
  - **Question analysis:** FACT prevents exclamatives from being used as questions or answers.

## Comparison with the question analysis

- **Evaluation**

- **Degree analysis**

- **Strong points**

- Exclamatives indicate high degree because it is a requirement of a degree operator.
      - Exclamatives are analogous to other degree constructions.

- **Weak points**

- Nothing is said about the contribution of [+wh]

## Comparison with the question analysis

- **Evaluation**

- **Question analysis**

- **Strong points**

- They make a proposal as for why both interrogatives and exclamatives involve *wh*-movement.

- **Weak points**

- They make no predictions about the interpretation of the degree operator *tanl tanti* in Catalan or Italian in contexts other than exclamatives.
      - Widening is viewed as a way to update the common ground and the explanation for extreme degree at the same time.

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Dank u wel!

Moltes gràcies!

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