

Exclamatives have a question semantics!

Anna Chernilovskaya
Utrecht Institute of Linguistics OTS, Utrecht University

Abstract In this paper I compare two different approaches to the semantics of wh-exclamatives on the basis of their empirical coverage and principal assumptions. The first one considers exclamation to be fundamentally a degree phenomenon, whereas the second one notices a resemblance between wh-exclamatives and wh-questions and derives meanings of the former from meanings of the latter. I argue in favour of the second approach and make a proposal along the lines of d’Avis (2002). I show that with minimal additional assumptions, d’Avis’ approach captures readings involving degree. Moreover, the proposal allows to explain the fact that some wh-exclamatives from languages other than English have so-called individual readings, which are excluded by the degree approach.

Matrix wh-exclamatives are clauses like (1):

(1) *How tall John is!*

(1) is usually claimed to express speaker’s surprise at the degree to which John is tall. There are two major directions in describing semantics of wh-exclamatives. The first one (Castroviejo Miró (2006), Rett (2008)), the *degree approach*, observes that there is always a gradable property underlying a wh-exclamative (e.g. “*tall*” in (1)). This property can also be provided by a context. For example, when the speaker expected Mary, who is American, to speak only English and is surprised that she also speaks exotic languages (Afrikaans and Swati), the use of (2) is felicitous:

(2) *What languages Mary speaks!*

(2) does not contain an overt gradable predicate, but the salient gradable property of exoticism can be covertly inserted giving rise to “*What exotic languages Mary speaks!*”.

The degree approach predicts that (2) does not have a so-called *individual reading*. A scenario supporting the individual reading of (2) suggested in (Rett, 2008) would be: the speaker knows that Mary speaks two Romance languages, and that her mother is Swiss, so he expects these two languages to be French and Italian. However, the speaker learns that Mary speaks Portuguese and Romanian instead. Therefore, (2) cannot be used to express speaker’s surprise that Mary speaks two particular languages because they are different from what he expected. The reason for this is that in this context there is no salient gradable property (insertion of the property “*unexpected*” is explicitly prohibited in the degree approach).

The second prediction of the degree approach is that wh-exclamatives introduced by wh-words not ranging over degrees (like “*who*”) are ungrammatical as they cannot denote a gradable property, as (3) shows:

(3) **Who I have just seen!*

However, I suggest that these two predictions are also limitations for the degree approach. First, I observe that in some languages there are wh-exclamatives that have individual readings. For example, (4) can be used in the “individual” scenario for (2):

(4) *Nichego sebe, na kakih jazykah ona razgovarivaet!* (Russian)
PARTICLE on what languages she speaks!

Other wh-exclamatives having individual readings are those used when the speaker opens the door after hearing a doorbell and is surprised to see some unexpected person:

(5) *O-o, kogo ja vizhu!* (Russian) *Wie hebben we daar!* (Dutch)
Oh, whom I see! Who have we there!

(5) also illustrates the second limitation of the degree approach. I observe that even though some wh-words do not range over degrees, they still can introduce wh-exclamatives. To sum

up, the degree approach gives quite restricted cross-linguistic predictions.

An alternative to the degree approach is a *question approach* (d’Avis, 2002; Zanuttini and Portner, 2003; Castroviejo Miró, 2008), which stems from the similarity between wh-exclamatives and wh-questions. More precisely, wh-questions and wh-exclamatives are assumed to have the same semantics brought by the wh-clause, and they differ only syntactically (in form) and pragmatically (in use). In d’Avis’ approach to semantics of wh-exclamatives, as in Karttunen’s question semantics, a wh-clause is taken to denote a set of its true answers. d’Avis’ approach is based on Heim’s two notions of answerhood (Heim, 1994). $answer_1$ in the actual world w is the intersection of the question’s extension, $answer_2$ is a set of worlds where $answer_1$ is the same as $answer_1$ in w . Consider a wh-exclamative

- (6) *Wen Maria eingeladen hat!* (German)
Whom Maria invited has!

It can be used to express surprise in a situation when the speaker expected Maria to invite only John, but it turned out that she invited John and also Bill. In this situation the denotation of the wh-clause underlying (6) in the actual world w is:

- (7) $\llbracket wh - clause \rrbracket(w) = \{p \mid \exists x(p = \lambda w'. \llbracket invited \rrbracket(w')(m)(x) \wedge \llbracket invited \rrbracket(w)(m)(x))\} = \{\lambda w'. \llbracket invited \rrbracket(w')(j)(m), \lambda w'. \llbracket invited \rrbracket(w')(b)(m)\}$

and the two answer concepts are

- (8) $answer_1(w) = \bigcap \llbracket wh - clause \rrbracket(w) = \{w' \mid \llbracket invited \rrbracket(w')(j)(m) \wedge \llbracket invited \rrbracket(w')(b)(m)\}$
 $answer_2(w) = \{w' \mid answer_1(w') = answer_1(w)\}$
 $= \{w' \mid \llbracket invited \rrbracket(w')(j)(m) \wedge \llbracket invited \rrbracket(w')(b)(m) \wedge \forall x \notin \{j, b\} \neg \llbracket invited \rrbracket(w')(x)(m)\}$

In d’Avis’ approach a wh-exclamative has the same denotation as the underlying wh-clause, and is used felicitously iff two conditions hold: (i) speaker’s expectations entail the negation of $answer_1(w)$; (ii) the speaker knows $answer_2(w)$. In brief, the approach claims that wh-exclamatives express surprise at a particular answer to the wh-clause. For example, (6) is felicitous: (i) holds because the speaker did not expect Maria to invite Bill, (ii) since the speaker knows whom Maria actually invited.

Even though d’Avis does not provide an analysis for (1), I propose that a minimal assumption can make his approach deal with degree readings too. The meaning of a gradable predicate “*tall*” in a world w is taken to be of type $\langle d, \langle e, t \rangle \rangle$, and its meaning is defined as

- (9) $\llbracket tall \rrbracket(w) = \lambda d \lambda x. \text{ the height of } x \text{ in } w \geq d$

This entails that “*tall*” is downward monotone in the following sense:

- (10) $\forall w, x, d, d' (d' < d \wedge \llbracket tall \rrbracket(w)(d)(x) \rightarrow \llbracket tall \rrbracket(w)(d')(x))$

The use of (1) is felicitous in a scenario when the speaker expected John to be not particularly tall (say, not more than 1m80), but John appeared to be 2m tall. This is predicted by the proposal because

- (11) $answer_1(w) = \{w' \mid \llbracket tall \rrbracket(w')(j)(d_{2m})\}$ (worlds where John is at least 2m tall)
 $answer_2(w) = \{w' \mid \llbracket tall \rrbracket(w')(j)(d_{2m}) \wedge \neg \exists d' > d_{2m} (\llbracket tall \rrbracket(w')(j)(d'))\}$
(worlds where John is precisely 2m tall)

$\neg answer_1(w)$ is a set of worlds where John is less than 2m tall, thus the expected proposition is a subset of $\neg answer_1(w)$, so (i) and (ii) are satisfied. This only works when the semantics of a gradable adjective is monotone (Nouwen, 2010). Otherwise, $answer_1(w)$ and $answer_2(w)$ are a set of worlds where John is precisely 2m tall, and the proposal makes an undesirable prediction that (1) is felicitous if the speaker expected John to be around 2m20, but John is “only” 2m tall.

Note, by the way, that in order to apply the reasoning suggested above to wh-exclamatives involving absolute gradable adjectives (Kennedy, 2007), like “*dry*”:

- (12) *How dry the cake was!*

“*dry*” has to be reinterpreted as a relative adjective. Then (12) is correctly predicted to be felicitous when the speaker did not expect the cake to be as dry as it actually is.

The reading of (2) involving degree is also predicted by d’Avis’ approach. Indeed, $answer_1(w)$ says that Mary speaks English, Afrikaans, and Swati, $answer_2(w)$ that Mary speaks only these three languages. The speaker expected that Mary does not speak any exotic language, in particular, not Afrikaans or Swati. Therefore, (i) and (ii) hold.

d’Avis approach does not have the two limitations the degree approach shows. First, it predicts that individual readings of wh-exclamatives are possible. It is undesirable for (2), but a positive side of this is acceptance of an individual reading of (4). Second, contrary to the degree approach, d’Avis’ approach allows wh-exclamatives introduced by wh-words not ranging over degrees like (5), though leaving a similar English example (3) unexplained. Together with the extension for gradable predicates, the approach also predicts readings involving degree ((1) and (2)). Moreover, it does so without need for gradable predicate insertion. Therefore, it has wider cross-linguistic coverage than the degree approach: it covers some data from Russian, German, and Dutch unexplained by the degree approach. However, it overgenerates wh-exclamatives for English.

The proposal raises an interesting question about the reason of the cross-linguistic difference (e.g. between (3) and (5)). Also a further investigation of the felicity conditions is needed. For example, (i) suggests that wh-exclamatives are mirative. Consequently, we have to provide a separate explanation for the use of wh-exclamatives as compliments (Zanuttini and Portner, 2003) like:

(13) *What a nice house you have!*

used when the speaker sees the house for the first time, and the house is as nice as he expected. Here I agree with Rett (2008) that the speaker uses (13) insincerely. Condition (ii) makes wh-exclamatives resemble wh-questions not requiring answers like:

(14) *After all, how tall is John?!*

Time permitting, I will present few initial speculations on similarity between these types of utterances.

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