

# Verum focus IS VERUM, but not always focus

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# Verum accent

- Placing a pitch accent on the finite auxiliary in English (German, etc.) emphasizes the truth of the prejacent (Höhle 1992).
  - (1) Oliver IS from Australia.  
     $\rightsquigarrow$  *It is true that Oliver is from Australia.*
- We call this phenomenon **verum accent** (a.k.a. “verum focus”).

# Polarity focus or epistemic operator?

- Analyses of verum accent come in two main forms:
  - ① **Polarity Focus:** Verum accent is focus on a syntactically represented polarity head (Laka 1990; Wilder 2013; Samko 2016; Goodhue 2018).
  - ② **Epistemic Operator:** Verum accent is the spelling out of an otherwise covert epistemic (or common ground) operator (Romero & Han 2004; Gutzmann et al. 2020).
- We will side with the operator approach.

# Core proposal

- Verum accent spells out a VERUM operator that has no truth-conditional import, but which introduces a **conflicting evidence presupposition**.

$$(2) \quad \llbracket \text{VERUM} \rrbracket(p) = p,$$

provided there is conflicting evidence about  $p$

- Additional claims:
  - We do not deny the existence of polarity focus. But we posit that polarity focus is independent from VERUM!
  - We propose that polarity focus is generated when a pitch accent is placed on a lexical polar element (e.g., negation, epistemic *really*, or VERUM itself).

# Empirical coverage

- Our analysis captures the occurrence of verum accent in declaratives.
- In conjunction with polarity focus, our analysis also explains the epistemic bias properties of the following question forms:
  - 1 Polar questions with a verum accent (VrmQs).
  - 2 Polar questions with epistemic *really* (RlyQs).
  - 3 Negative polar questions (NPQs).

# Outline

- 1 VERUM: Our analysis
- 2 Polarity focus and question bias
- 3 VERUM and polarity focus co-occurring
- 4 Prior accounts of verum accent

- A verum accent occurs in two main contexts: *contradiction* and *affirmation* (Gutzmann et al. 2020).

(3) **Contradiction:**

A: Oliver is not from Australia.

B: No, he IS from Australia.

(4) **Affirmation:**

A: Paula is an amazing linguist.

B: Yes, she IS an amazing linguist.

- A verum accent is infelicitous in a neutral (or non-conflicted) context.

(5) **Neutral:**

A: Is it raining?

B: # It IS raining.

- Important: A neutral context is not necessarily an out-of-the-blue context. Rather, it is a context without an epistemic conflict about the prejacent.



# Our analysis

- We analyze verum accent as the overt manifestation of an epistemic VERUM operator.
- This operator has no truth-conditional import but presupposes the existence of conflicting evidence about the prejacent:

$$(6) \quad \llbracket \text{VERUM} \rrbracket(p) = p,$$

provided there is conflicting evidence about  $p$

- Conflicting evidence about  $p$  involves two pieces of evidence about  $p$  that are incompatible/contradictory (cf. Büring & Gunlogson 2000).
- We now show how the distribution of VERUM follows from this simple semantics.

## Verum in contradiction contexts

- In contradiction contexts the relevant proposition is contested.  

(7) A: Oliver is not from Australia.  
B: No, he IS from Australia.
- Here the conflicting evidence presupposition is satisfied and verum accent (signalling the presence of VERUM) is felicitous.
  - The evidence against the prejacent comes from A's initial utterance.
  - The evidence for the prejacent comes from yet a previous utterance (A's negative sentence is a reaction to a prior positive claim) or from the norm of assertion in B's utterance (through accommodation).

## Verum in affirmation contexts

- Affirmation contexts are those in which the speaker and the addressee agree on the prejacent.
  - (8) A: Paula is an amazing linguist.  
B: She IS an amazing linguist.
- Such contexts involve **extreme adjectives** (e.g. *amazing*), which make use of the far end of the scale of the respective regular adjective (i.e. *good*) (Cruse 1986; Morzycki 2012).
- Extreme adjectives create an implicit contradiction:
  - The evidence for the prejacent comes from A's initial utterance.
  - Since  $\langle \textit{good}, \textit{amazing} \rangle$  forms a Horn scale, A's utterance naturally invokes the respective *good*-alternative. The latter gets strengthened to *Paula is a good but not amazing linguist*, which serves as evidence against the prejacent.
- The combination of A's (extreme) utterance and the rejected (regular but strengthened) alternative satisfies the conflicting evidence presupposition, so verum accent is licit.

## Verum in neutral contexts

- Neutral contexts are those in which there has been no explicit (or easily accommodated) prior discussion regarding the truth of the prejacent.

(9) A: Is it raining?

B: # It IS raining.

- In such a context, the conflicting evidence presupposition is clearly not satisfied, so the production of a verum accent is infelicitous.

## Verum in polar questions

- A verum accent may occur not only in declaratives but also in polar questions. VrmQs have been claimed to convey a (negative) **speaker bias** (Romero & Han 2004).

(10) DID Karl kick the dog?

↪ *The speaker doubts that Karl kicked the dog.*

- However, the bias in VrmQs is optional (Goodhue 2019; Gutzmann et al. 2020). E.g., VrmQs are compatible with the neutrality marker *by any chance* (Sadock 1971).

(11) By any chance, DID Karl kick the dog? Because some say he did, others say he didn't.

- The conflicting evidence presupposition does not derive a bias. When a bias is present, we will claim that there is (polarity) focus on VERUM.

# Rooth's Alternative Semantics for focus (Rooth 1985; 1992; 1997)

- Every linguistic expression  $\alpha$  has an **ordinary** and a **focus** semantic value.
  - When  $\alpha$  is not focused marked, its focus value is the singleton set comprised of the ordinary value of  $\alpha$  (e.g.  $\llbracket \text{Mary} \rrbracket^f = \{\llbracket \text{Mary} \rrbracket^o\} = \{\text{Mary}\}$ ).
  - When  $\alpha$  is focus marked, its focus value is the set comprised of all alternative objects that are of the same semantic type (e.g.  $\llbracket \text{Mary}_F \rrbracket^f = \{\text{Mary}, \text{Jane}, \text{Susan}\}$ ).
  - Focus semantic values are composed in a pointwise fashion.
- Focus can be **semantic** (associating with an operators like *only* or *even*) or **pragmatic** (presentational or contrastive).
  - **Presentational focus:**  
 $\phi \sim Q$  iff  $Q \subseteq \llbracket \phi \rrbracket^f$ ,  $\llbracket \phi \rrbracket^o \in Q$ , and  $\exists p \in Q : p \neq \llbracket \phi \rrbracket^o$
  - **Contrastive focus:**  
 $\phi \sim p$  iff  $p \in \llbracket \phi \rrbracket^f$  and  $p \neq \llbracket \phi \rrbracket^o$

## Polarity focus basics

- **Polarity focus** is regular focus marking on a (lexical) polar element.
- A polar element (negation, epistemic *really*, emphatic *so*, *definitely*, etc.) determines the polarity of a sentence, i.e. it entails the prejacent or its negation.
- When such an element is focused, its focus value includes both polar values. Example:

- (12) a.  $[[so_F]]^o = \lambda p.p$ ,  $[[not_F]]^o = \lambda p.\neg p$   
b.  $[[so_F]]^f = [[not_F]]^f = \{\lambda p.p, \lambda p.\neg p\}$

## Polarity focus interpretation

- Polarity focus can be presentational or contrastive.
- A presentational interpretation arises in cases where both polar alternatives are present in the antecedent question.

(13) A: Did Sarah pass the test yesterday?

B: No, she did NOT pass the test.

$[\text{not}_F [\text{she pass the test}]]_\phi \sim Q$

$Q = \{pass, \neg pass\}, \llbracket \phi \rrbracket^o = \neg pass, \llbracket \phi \rrbracket^f = \{pass, \neg pass\}$

- A contrastive interpretation is possible in contexts where the opposite polarity alternative is present.

(14) I thought Sarah passed but she did NOT pass.

$[\text{not}_F [\text{Sarah pass}]]_\phi \sim p$

$p = pass, \llbracket \phi \rrbracket^o = \neg pass, \llbracket \phi \rrbracket^f = \{pass, \neg pass\}$



## Polarity focus in negative questions

- Questions containing accented/high negation have been associated with a positive bias.

(15) Did Jane NOT win? / Didn't Jane win?

$\rightsquigarrow$  *I suspected she would.*

$[Q [\text{not}_F [\text{Jane win}]]_\phi \sim p]$

$p = \text{win}, [[\phi]]^o = \neg \text{win}, [[\phi]]^f = \{\text{win}, \neg \text{win}\}$

- A presentational interpretation here would be redundant (it would repeat the regular question partition).
- A contrastive interpretation results in the presupposition of a positive antecedent ( $p = \text{win}$ ).
- The production of a question with such a presupposition generates a sense that the speaker favors the positive question alternative (hence the positive epistemic bias).

## Polarity focus in positive questions

- Questions containing a positive polar element have been associated with a negative bias.

(16) Does Susan REALLY drink?

$[Q [\text{really}_F [\text{Susan drink}]]_\phi \sim p]$

$p = \neg \text{drink}, \llbracket \phi \rrbracket^o = \text{drink}, \llbracket \phi \rrbracket^f = \{\text{drink}, \neg \text{drink}\}$

- A presentational interpretation here would be redundant (for the same reason as above).
- A contrastive interpretation results in a negative antecedent, and, in the same manner as its positive counterparts, in a negative epistemic bias.

## VERUM and polarity focus in questions

- The neutral interpretation of VrmQs is generated by unfocused VERUM.

(17) By any chance, DID Karl kick the dog? Because some say...

[Q [VERUM [Karl kick dog]]]<sub>ϕ</sub>

[[ϕ]]<sup>o</sup> =  $\lambda w.kick_w(karl, dog)$ , provided there is conflicting evidence about  $\lambda w.kick_w(karl, dog)$

- When VrmQs do convey bias, this is because VERUM is focused. It generates a bias in the same way as focus on any other positive polar element (e.g. *really*).

(18) [Q [VERUM<sub>F</sub> [Karl kick dog]]]<sub>ϕ</sub> ~ *p*

- Not clear if the same ambiguity (VERUM vs. VERUM<sub>F</sub>) is found or needed in declaratives, which cannot be neutral.

## Goodhue's 2018 polarity focus account

- Verum accent is polarity focus or (on this view) focus on a syntactic polarity head.
- This approach can straightforwardly capture the felicity of a verum accent in *contradiction* and *affirmation* contexts.
- However, it struggles to explain why verum accent is infelicitous in *neutral* contexts (without additional assumptions):

(19) A: Did Sarah pass the test yesterday?

B: # Yes, she DID pass the test.

B': No, she did NOT pass the test.

- In order to explain the infelicity of (19B) (against the felicity of (19B')), this account would need to stipulate (i) that polarity focus is always contrastive and (ii) that only pronounced question alternatives can serve as focus antecedents.

## Romero & Han's 2004 epistemic operator account

- A verum accent signals the presence of a meta-conversational operator conveying certainty that the prejacent  $p$  should be added to the common ground, i.e.  $ForSureCG(p)$ .
- This account can explain the distribution of verum accents in declaratives across *contradiction*, *affirmation*, and *neutral* contexts.
- However, it does not explain (i) the existence of unbiased VrmQs and (ii) the lack of predicted modality in the answers to such questions.

(20) By any chance, DID Karl kick the dog?

(21) A: DID Karl kick the dog?

B: No.  $\rightsquigarrow \neg p$  ( $\not\rightsquigarrow \neg ForSureCG(p)$ )

## Gutzmann et al.'s 2020 epistemic operator account

- This account is the most similar to ours. It claims that a verum accent conveys the following use condition:

$$(22) \quad \llbracket \text{VERUM} \rrbracket(p) = p,$$

provided that the speaker wants to prevent that the question under discussion is downdated with  $\neg p$

- This account can explain the distribution of verum accents in *contradiction*, *affirmation*, and *neutral* contexts.
- However, it struggles to capture VrmQs. Without additional machinery, the account incorrectly predicts a positive bias (as the speaker is pushing against  $\neg p$ ) and also does not capture unbiased VrmQs.

# Summary

- Verum accent and polarity focus are independent phenomena (also crosslinguistically; Gutzmann et al. 2020).
- Verum accent is the overt manifestation of a presuppositional VERUM operator.
- Polarity focus is narrow focus on a lexical polar element.
- The two phenomena can occur alone and in concert, with each contributing to the final meaning, e.g. in biased question.

Thank you!