

A minimal theory of verum focus and context dependent bias in questions

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1. Intro: Is verum focus (VF, [Hö92], e.g. (1)) a kind of focus along the lines of [Ro92], or does it contribute a grammatical operator O ? Most researchers in semantics have pursued operator accounts (OAs) that treat VF as wholly distinct from focus, e.g. [RH04], [Re13], [GHM17]. In this talk, I pursue a focus account (FA, cf. [Sk16]) that explains (i) the discourse congruence effects of VF, and (ii) the context dependency of epistemic bias in VF questions. I argue that my FA offers more parsimonious explanations than OAs.

2. A puzzle: OAs predict O and its semantic and pragmatic effects to be present whenever VF is, but this is not always so. For example, [RH04] predict that positive questions with O always convey an epistemic bias for $\neg p$. This explains the bias implicature of (2), but incorrectly predicts bias in (3) and (4).

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| <p>(1) A: Is Ivy coming?
S: Ivy IS coming.</p> | <p>(2) A: Ivy is coming.
S: IS Ivy coming?
\rightsquigarrow S believed Ivy was not coming</p> |
| <p>(3) S wants to know whether Jill will be at a meeting for members. But S lacks an opinion about whether Jill is a member.
S: Will Jill be at the meeting?
A: If she's a member, she will.
S: IS she a member?
$\not\rightsquigarrow$ S believed she wasn't a member</p> | <p>(4) C is visiting A and B in their new hometown. They are at a diner.
A (to C): I think this place might be open 24 hours.
C: I love 24 hour places.
A (to B): IS it open 24 hours?
$\not\rightsquigarrow$ A believed it wasn't open 24 hours.</p> |

3. Deriving context dependent bias from independent pragmatic principles: In (2), A asserts p , thus believes p and intends S to accept p and update the context set (c , [St78]). Then S asks $?p$. [Rb96] and [Bü03] argue for a necessary but not sufficient condition for felicitously asking $?p$ in c : c must not entail a complete answer to $?p$. Therefore, by asking $?p$, S signals that c does not entail p . Since A believes p , S must not believe p ($\neg \Box p$). However, the epistemic bias inference in (2) is the stronger inference $\Box \neg p$. If the context supports the assumption that S is opinionated about p ($\Box p \vee \Box \neg p$), then combined with $\neg \Box p$, we infer the stronger implicature $\Box \neg p$ (cf. the quantity implicature literature, [Sa05], [Fo07], [Ge10]). Bias depends entirely on conversational pragmatics and is completely independent of VF. Therefore, unbiased VF questions like (3) and (4) are predicted. While VF is licensed in each, two crucial conditions for bias are not met: (i) No one expresses belief in p , and (ii) S is not opinionated about p . Thus no bias is derived.

4. Prediction: Both conditions must be met to derive bias: In (5), S is presumably opinionated about p , but A does not express belief, so no bias is derived. In (6), A expresses a belief in p , but S has no opinion, so there is no bias. OAs predict context insensitive bias, producing the wrong results for (3)-(6).

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| <p>(5) A is on a game show where she has to answer questions about familial relations. S is the host.
S: Does John have any siblings?
H: Well, I think Mary could be his sister, but... [pauses, in thought]
S: IS Mary John's sister? Time's almost up!
$\not\rightsquigarrow \Box \neg p$</p> | <p>(6) A is telling S about a new club she has joined. Both know that S knows little about it.
A: And Jill is a member too.
S: IS she? I didn't know that, that's nice!
$\not\rightsquigarrow \Box \neg p$</p> <p>(7) A: Ivy is not coming.
a. S: # IS Ivy coming?
b. S: IS Ivy not coming? $\rightsquigarrow \Box p$</p> |
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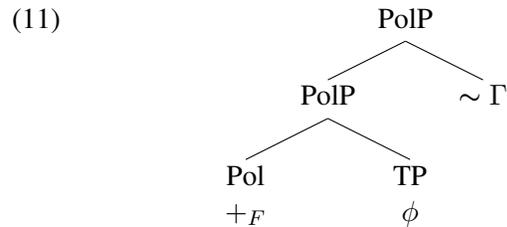
5. Other conditions apply: This derivation of bias provides necessary but not sufficient conditions for biased questions. E.g. (7a) is only infelicitous because it does not meet the evidence condition on polar questions ([BG00] a.o.). (7b) meets the evidence condition, and my account correctly derives the $\Box p$ bias.

6. VF behaves like focus: VF is similar to other focus phenomena in that it requires an antecedent in order to be felicitous. (8a) is a canonical example of question-answer congruence. Responses with VF appear to be congruent to polar questions, (9b), not WH-questions, (8b). Prominence shifting to other positions, e.g. (9a), is infelicitous. (2) compared with (10) shows that VF questions require the right antecedent as well.

- (8) A: Who is coming?
 a. S: IVY is coming.
 b. S: # Ivy IS coming.

- (9) A: Is Ivy coming?
 a. S: # IVY is coming.
 b. S: Ivy IS coming.

- (10) S: Is Dinah coming to the party?
 A: Yes.
 S: What about Ivy...
 a. S: Is SHE coming to the party too?
 b. S: # IS she coming to the party too?



7. VF is polarity focus: These discourse congruence requirements follow straightforwardly from analyzing VF as F-marking on the polarity head (+ or −, [La90], see the VF structure in (11)). I assume positive polarity is identity and negative polarity is negation. The set of focus alternatives are produced by replacing + with other natural language expressions f that denote functions from propositions to propositions, and calculating the results via pointwise composition. The resulting set will contain p , $\neg p$, and other propositions, e.g. $\diamond p$. Focus (the \sim operator) presupposes that a contextually given antecedent Γ is either a subset or member of the set of alternatives ([Ro92]). This requirement explains why VF is anaphoric to preceding context. In (8b), (9a), and (10b), there is no antecedent that is a subset or member of the focus semantic values of the VF utterances. A’s polar question in (9), which denotes $\{p, \neg p\}$, provides the antecedent for (9b). A’s assertion in (2) provides the antecedent for S’s VF question. The protasis of A’s conditional in (3) and the prejacent of *might* in (4) provide the antecedents for their corresponding VF questions.

8. Evidence from overt operators? [GHM17] raise several criticisms of FAs, primary among them that “VF” is orthogonal to focus-marking in many languages. In response, I note that just because languages sometimes employ other grammatical means to serve VF-like functions does not mean the two should be analyzed as contributing the same operator O underlyingly. E.g. English *really* performs VF-like functions while nevertheless being distinct from VF (pace [RH04]). (12) is infelicitous without a previous dispute over p , while (1) is fine. (13) necessarily conveys bias and seems to require A to have asserted p , unlike (3).

- (12) A: Is Ivy coming?
 S: # Ivy really is coming.

- (13) [Context from (3)]:
 S: # Is she really a member? $\rightsquigarrow \square \neg p$

9. Conclusion: The FA I propose relies entirely on independently motivated grammatical mechanisms and pragmatic principles (+/−, \sim , c , [Ro96]/[Bü03], opinionatedness) to explain the discourse congruence and context dependent bias of VF. OAs need to motivate silent operators, and do not explain context dependent bias. However, the debate between FAs and OAs cannot be settled in such a short space. I will point out further asymmetries in the bias arising from VF and high negation questions. I will also consider other criticisms of FAs raised by [GHM17], so as to contribute to a larger discussion on FAs and OAs of VF.

References: [Bü03] **Büring**, On D-Trees... [BG00] **Büring & Gunlogson**, Aren’t positive and negative polar questions the same?. [Fo07] **Fox**, Free choice... [Ge10] **Geurts**, Quantity Implicatures. [GHM17] **Gutzmann, Hartmann & Matthewson**, Verum focus is verum, not focus. [Hö92] **Höhle**, Über verum-fokus im deutschen. [La90] **Laka**, Negation in syntax. [Re13] **Repp**, Common ground management. [Rb96] **Roberts**, Information structure in discourse. [RH04] **Romero & Han**, On negative YNQs. [Ro92] **Rooth**, A theory of focus interpretation. [Sk16] **Samko**, Syntax & Information Structure. [Sa05] **Sauerland**, The epistemic step. [St78] **Stalnaker**, Assertion.