

# Anaphoricity and contrast in free focus\*

January 12, 2023

## Abstract

The sensitivity of focus to context has often been analyzed in terms of anaphoric relations between sentences and surrounding discourse. Data from Wagner (2006) and Katzir (2013) challenge earlier anaphoric accounts, but recent work by Schwarzschild (2020) and Goodhue (2022) proposes to overcome the challenge within an anaphoric framework and highlights potential advantages of maintaining anaphoricity. I argue against these recent proposals and in favor of a non-anaphoric view in which the felicity profile of focus arises from the ability of focus to feed exhaustification and question formation.

## 1 Cheap convertibles and where to find them

Free focus is the name sometimes used to refer to focus that does not have an overt associating operator (such as ‘only’). The following illustrates (with context-setting sentences in parentheses here and below):<sup>1</sup>

- (1) (She brought an expensive convertible.) No, she brought a [CHEAP]<sub>F</sub> convertible

The felicity of free focus depends heavily on the surrounding discourse. In the context provided in (1) focusing ‘cheap’ is acceptable. If the context had been “She brought a book” instead, the same response would have been odd.

---

\*Acknowledgments: To be added.

<sup>1</sup>See Halliday (1967), Chomsky (1969), Bolinger (1972), Dretske (1972), Jackendoff (1972), von Stechow (1981), Selkirk (1984), Rochemont (1986), Rooth (1992), Williams (1997), and Schwarzschild (1999), among many other works. For recent overviews and further developments see Büring (2016) and Wagner (2020). Following Jackendoff (1972) and much later work I will consider focus to be mediated by a syntactic feature, notated as *F*, that can appear on constituents in the sentence. Prosodically, F-marking often results in prominence. Semantically, F-marked constituents can be replaced with various substitutions, giving rise to a set of alternatives. In (1), for example, the only F-marking is on the adjective ‘cheap’. This leads to the placement of accent on the adjective and to its having alternatives such as “She brought an expensive convertible”. (I sometimes refer to focus alternatives as syntactic objects, but nothing in the present discussion hinges on that.) Where needed I will follow Jacobs (1991), Kratzer (1991), and others in indexing F-marks, but where this is not necessary I will avoid doing so and often omit notating F-markers altogether.

According to a long tradition, free focus is governed by an anaphoric condition. Roughly, if we treat F-marked elements as wildcards, the sentence should match a previous sentence in discourse. In (1), for example, we have *She brought a  $x$  convertible* (with  $x$  marking the wildcard status of the F-marked ‘cheap’), which matches the discourse-given “She brought an expensive convertible”. I will refer to this view as ANAPHORICITY.<sup>2</sup>

Wagner (2006, 2012) noted a challenge to ANAPHORICITY:

- (2) (She brought an expensive convertible.) # No, she brought a [RED]<sub>F</sub> convertible

From the perspective of ANAPHORICITY, (1) and (2) seem identical. Why then is the former good and the latter bad?

Wagner suggests that the appearance of formal identity between (1) and (2) is misleading and that in (2) the sentence does not, in fact, satisfy the requirements of ANAPHORICITY. This is so because, according to Wagner, ANAPHORICITY requires not just anaphoric matching but also very local *contrast*: in the configuration [ $A_F B$ ], the context must provide a salient antecedent [ $A' B$ ] that contradicts it in some sense. Specifically, [cheap convertible] successfully contrasts with [expensive convertible], so ANAPHORICITY is satisfied in (1), but [red convertible] fails to contrast with [expensive convertible], so ANAPHORICITY is not satisfied in (2).<sup>3</sup>

A different, non-anaphoric account of Wagner’s observations is provided in Katzir (2013, 2014). According to this alternative explanation, what makes (1) good and (2) bad is that the former constitutes coherent discourse while the latter does not. Specifically, “She brought a [CHEAP]<sub>F</sub> convertible” can be understood exhaustively, meaning that she brought a cheap convertible and did not bring an expensive convertible. The inference denies the context-setting sentence, and the result is a coherent discourse move. On the other hand, “She brought a [RED]<sub>F</sub> convertible” cannot be understood as denying the context-setting sentence: even when understood exhaustively, it implies nothing about whether she brought an expensive convertible (though it can easily be understood, for example, as implying that she did not also bring a blue convertible).

As noted by Katzir (2013), this pattern of inference is exactly as expected given current theories of exhaustification, on the common assumption that exhaustification is a focus-sensitive operation.<sup>4</sup> In particular, exhaustification has been argued by Fox (2007) to avoid making arbitrary choices (see also Groenendijk and Stokhof 1984 and Sauerland 2004).

<sup>2</sup>ANAPHORICITY has sometimes been implemented in terms of focus alternatives, by requiring that a sentence have a focus alternative in discourse. Of the works discussed below, Schwarzschild (2020) implements ANAPHORICITY directly while Goodhue (2022) implements it in terms of focus alternatives. To keep the presentation simple I will gloss over this distinction. I will also set aside various other choice points in anaphoric accounts, as well as other factors that have been argued to play a role in the distribution of F-marking, such as focus minimality (see Schwarzschild 1999 and many others).

<sup>3</sup>For early observations regarding contrast and a proposal that incorporates a contrastive requirement on focus see Jackendoff (1972, pp. 242–5).

<sup>4</sup>This assumption is in line with early observations by Dretske (1972) and is developed more explicitly by Rooth (1992), Spathas (2010), Fox and Katzir (2011), Fox and Spector (2018), and Bade and Sachs (2019), among others.

In the case of (1) this poses no problem. Assuming that the focus alternatives are {“She brought a cheap convertible”, “She brought an expensive convertible”, “She brought a red convertible”, “She brought a blue convertible”}, we can safely negate “She brought an expensive convertible” consistently with the assertion and without deciding the truth of the other alternatives: in Fox (2007)’s terms, “She brought an expensive convertible” is *innocently excludable* given the assertion and the set of alternatives. Things are different for (2): given the same set of focus alternatives — and assuming that every convertible is either cheap or expensive — negating either of the two cost-related alternatives would affirm the other, which would be arbitrary, while negating both would lead to contradiction given the assertion. That is, neither alternative is innocently excludable given the assertion. Exhaustification, then, does not help the assertion in (2) deny the context-setting sentence, and the discourse move is correctly predicted to be odd.

Katzir (2013)’s evidence for the exhaustification-based account and against Wagner (2006)’s modified ANAPHORICITY-based account comes from contexts that maintain the anaphoric profile of (1) and (2) and the absence of local contrast in (2) but in which the potential alternatives for the purposes of exhaustification *are* innocently excludable, as in the case of embedding under a universal operator. In such cases, accent on ‘red’ is no longer odd:

- (3) (It is required that she bring an expensive convertible.) No, it is required that she bring a ✓CHEAP/✓RED convertible.

The felicity of placing accent on either ‘cheap’ or ‘red’ in (3) is as expected by the exhaustification-based approach: the sentence (with either ‘cheap’ or ‘red’) can be understood, exhaustively, as denying that she is not required to bring an expensive convertible. As before, this inference is predicted given Fox (2007)’s theory of exhaustification. This is so since the alternative “It is required that she bring an expensive convertible” is innocently excludable both given the assertion that she is required to bring a cheap convertible and given the assertion that she is required to bring a red convertible: the universal operator ‘require’ ensures that given either assertion, all of the three remaining focus alternatives can be negated consistently with the assertion. Consequently, the result of exhaustification successfully denies the context-setting sentence. On the other hand, the pattern challenges Wagner’s account, since the felicity of the assertion suggests that there is no inherent problem with [red convertible] in the context of [expensive convertible].

We are left with the following picture. The exhaustification-based approach accounts for (1)–(3) without making reference to ANAPHORICITY. The account is based on exhaustive inferences that contradict the context-setting sentence (in (1) and (3)) or the absence of such inferences (in (2)), and the presence or absence of these inferences is directly detected in the examples above and readily predicted in terms of current theories of exhaustification. ANAPHORICITY, on the other hand, does not account for (1)–(3) on its own: the original version that does not rely on contrast fails to derive the oddness of (2), and Wagner (2006)’s notion of locally-checked contrast fails to derive the acceptability of (3). I believe that the picture we just saw is indicative of a more general problem for ANAPHORICITY, and

that even on implementations such as Schwarzschild (2020) and Goodhue (2022) discussed below that incorporate aspects of the exhaustification-based approach and that are designed to overcome the challenge of (1)–(3), ANAPHORICITY turns out to be not just unhelpful but in fact harmful. To show this, however, I will start by an important component that is still missing from the exhaustification-based approach and that will motivate situating this approach within a broader context.

## 2 QUESTIONS, and do we still need ANAPHORICITY?

The exhaustification-based account fails to predict the placement of focus in the following:

- (4) (It was an expensive convertible.) No, it was a CHEAP convertible
- (5) (She is outside the convertible.) No, she is INSIDE the convertible

In both (4) and (5), the context-setting sentence is already denied by the assertion regardless of exhaustification, leaving exhaustification with no work to do. What is the role of the F-marking on ‘cheap’ in (4) and on ‘inside’ in (5), then?

One possibility is that F-marking serves the purposes of ANAPHORICITY (with or without a contrast requirement), possibly as an addition to the exhaustification-based account. This might seem like a reason to maintain ANAPHORICITY.

However, there is an alternative explanation for the F-marking on ‘cheap’ in (4) and on ‘inside’ in (5) that the exhaustification-based account could appeal to, one that does not make reference to focus anaphoricity. This alternative explanation relies on the much-studied connection between focus and questions. Specifically, a suitably-chosen subset of the focus alternatives of a sentence can be taken to correspond to a question. By F-marking ‘cheap’ in (4), the speaker indicates that they are addressing the question of whether it was an expensive or a cheap convertible. Similarly, by F-marking ‘inside’ in (5), the speaker indicates that they are addressing the question of whether she is outside the convertible or inside of it. These seem like sensible questions to address given the context. More generally, we can add to the exhaustification-based account the requirement — proposed by Katzir and Singh (2015) and Büring (2019a), with roots going back at least to Jackendoff (1972, p. 246) and including much later work on focus and questions (see Rooth 1992, Roberts 1996, and Beaver and Clark 2008, among many others) — that a question induced by the assertion be a good question in the given context. For convenience I will refer to the combination of the exhaustification-based account from the previous section and the requirement that a focus-induced question be a good question as QUESTIONS.<sup>5</sup>

---

<sup>5</sup>Obviously much needs to be said about what constitutes a good question (and a good discourse move more generally). The question under discussion (QUD; Roberts 1996, Beaver and Clark 2008, and many others) is presumably a good question; on the present account this can help explain why focus often has the appearance of being anaphoric to a salient target. However, QUESTIONS (as in Katzir and Singh 2015 and Büring 2019a,b, as well as in the present paper) makes it possible in principle for other, non-salient questions to be good as well. For example, in correcting an utterance in previous discourse, as in the examples above, questioning a

I believe that there are both conceptual and empirical reasons to adopt QUESTIONS and reject ANAPHORICITY.

Conceptually, QUESTIONS is based on ingredients that are arguably needed anyway and would presumably be part also of anaphoric accounts. ANAPHORICITY, meanwhile, amounts to a special grammar of prosodic prominence with its own stipulations and would require clear empirical motivation.

The conceptual claim is quite straightforward for the ingredients related to exhaustification discussed in the previous section. As mentioned above, current accounts of exhaustification already derive the pattern in (1)–(3) once coupled with the commonsensical requirement that denials actually deny. As far as that pattern of prominence is concerned, then, independently-needed ingredients of QUESTIONS already account for the facts, making an anaphoric grammar of prominence superfluous at best.<sup>6</sup>

For the additional assumption from the present section that the focus alternatives of an assertion feeds question formation (and that the result must be a good question) things are more complicated. Here it is perhaps less obvious that the assumption is independently needed: differently from the case of exhaustification, it is perfectly imaginable that an anaphoric grammar of prominence would derive the connection between focus and questions, rendering a separate stipulation connecting questions and focus unnecessary. Indeed, one of Schwarzschild (1999)’s key accomplishments is showing what a derivation of this kind could look like. However, Schwarzschild also notes nontrivial challenges for any attempt to reduce the dependence of questions on focus to anaphoricity (pp. 165–6). For example, he discusses cases such as the following:

- (6) (Did the red convertible win or did the blue convertible win?) The RED convertible won

---

node in the structure seems to be good even if that question has not been previously raised. More broadly, a non-salient question about something is often good if that something is itself salient. One central way to make something salient is to mention it in the immediate linguistic context (see especially Büring 2019a,b’s discussion of a residual role for anaphoric reference in deaccenting). However, I believe that examples by Chafe (1974), Stevens (2014), and Büring (2019a), among others, show that a question about something that is contextually salient but has not been explicitly mentioned linguistically can also be good. For example, if a third convertible in a row zooms by, you may felicitously say “I HATE convertibles,” (see Chafe 1974), and if we both know that you are a car thief, you may felicitously say “Last week I surprised myself and actually BOUGHT a convertible,” (see Büring 2019a), in both cases without prior mention of convertibles.

Questions have also been argued to be subject to formal conditions on their denotations; see especially Büring (2019a), Fox (2019), and Bar-Lev and Fox (2022), and see Anvari (2021) for a particular view on how a sentence addresses a question that it defines.

In what follows I will for the most part rely on an intuitive notion of good questions, hoping that the conclusions of the discussion will hold also on a more precise notion of what makes a question good.

<sup>6</sup>Rooth (1992) famously argued for an anaphoric mechanism mediating between the focus alternatives of a sentence and operations such as exhaustification. (See von Stechow 1994, Krifka 2004, and Beaver and Clark 2008, among others, for further discussion of this proposal.) Rooth’s proposal, even if correct, does not affect my point. My claim that ANAPHORICITY is redundant does not concern the general availability of anaphoric mechanisms relating to focus but rather the more specific point that, at present, an anaphoric *grammar of prosodic prominence*, with its additional stipulations, does not seem to be needed.

In (6), accent on ‘red’ is called for even though the context-setting question makes the entire answer given. This seems unremarkable if the focus alternatives constrain question formation: F-marking on ‘red’ induces a question that is identical to the one provided in the context in (6) and is therefore good in that context, while F-marking anywhere else would result in questions that are not as good. On the other hand, deriving the accent on ‘red’ seems less straightforward for a question-agnostic grammar of prominence. Indeed, Schwarzschild (1999)’s discussion of (6) indicates a special role for questions in the distribution of focus, and the same is true for Sauerland (2005) and Schwarzschild (2020) who also consider such cases. I will follow these works in treating questions as special, which I implement by the stipulation that F-marking must induce a good question.

If the above reasoning is correct, then, the ingredients of QUESTIONS are all independently supported and are not reducible to an anaphoric grammar of prominence. This means that the real choice is not between QUESTIONS and ANAPHORICITY but rather between QUESTIONS on its own and a combination of QUESTIONS and ANAPHORICITY.

So is there empirical reason to adopt the extra stipulations of ANAPHORICITY? I will argue that, at least as currently implemented in the literature, the answer is no.

I will do so by considering what I take to be the main motivation for ANAPHORICITY: the fine control over prominence offered by its additional stipulations, which allows it on the one hand to license otherwise unmotivated prominence shifts (e.g., through local anaphoric deaccenting) and on the other hand to block otherwise acceptable prominence shifts (e.g., through additional conditions of contrast). This control over prominence has been capitalized on by many different works in the anaphoric tradition. For concreteness I will focus here on two recent proposals — Schwarzschild (2020) and Goodhue (2022) — that incorporate elements from QUESTIONS into an anaphoric framework and showcase the empirical possibilities of ANAPHORICITY just mentioned. Specifically, Schwarzschild (2020), discussed in section 3, illustrates the possibilities of local anaphoric deaccenting; and Goodhue (2022), discussed in section 4, illustrates the possibilities of additional contrast conditions blocking deaccenting. At first blush, these enhanced anaphoric systems will indeed seem to have an empirical advantage over the simpler non-anaphoric baseline of QUESTIONS. If correct, this would argue for ANAPHORICITY and justify the additional stipulations that it involves. Upon closer inspection, however, we will see that the anaphoric machinery does not, in fact, help. Moreover, I will show that it does real harm. In other words, as far as current anaphoric implementations are concerned, an account of accent placement is better off with just the non-anaphoric baseline of QUESTIONS, not just conceptually but also empirically.

### 3 Local anaphoric deaccenting?

As just mentioned, one putative advantage of ANAPHORICITY is its ability to handle so-called local anaphoric deaccenting: the deaccenting of material that is available in discourse but does not, intuitively, correspond to the background of a contextually-relevant question. The following illustrates:

- (7) (She has many expensive convertibles. Guess what she brought. . . )
- a. She brought a CHEAP convertible
  - b. # She brought a cheap CONVERTIBLE

Differently from (1), where the context includes a sentence of the form *She brought an x convertible*, here the contextually provided question — of the form *She brought x* — seems to require F-marking on the entire direct object in the answer, which in terms of prosodic realization would correspond to the odd accent on the noun ‘convertible’ in (7b) rather than the acceptable accent on the adjective ‘cheap’ in (7a).

A common intuition reported in the literature (see Chafe 1974, Allerton 1978, Ladd 1980, and many others) and implemented formally within a comprehensive anaphoric framework of prominence by Schwarzschild (1999, 2020) is that the presence of ‘convertible’ in the discourse allows it to be deaccented. For concreteness I will assume Schwarzschild’s approach, which avoids imposing a contrast requirement and (in its 2020 version) explicitly embraces exhaustification and is therefore well-positioned to handle the examples discussed above (simply by letting QUESTIONS derive the distinction between acceptable and unacceptable prominence patterns). In terms of this system, it is not only the DP that is F-marked (due to the contextually-provided question) but also the adjective (due to the presence of ‘convertible’ in the context), which accounts for the deaccenting of ‘convertible’. Schematically, [She brought [a cheap<sub>F</sub> convertible]<sub>F</sub>].

For ANAPHORICITY, then, the perceived mismatch between the (adjective-level) question that the assertion seems to answer and the actual (DP-level) question provided by the context seems unproblematic. For QUESTIONS, on the other hand, mismatches of this kind pose a clear challenge given that QUESTIONS cannot avail itself of local anaphoric deaccenting. Such mismatches, then, appear to justify the addition of ANAPHORICITY to QUESTIONS.<sup>7</sup>

As already noted by Wagner (2006) and discussed further by Büring (2019b), the benefits of non-contrastive local anaphoric deaccenting are only apparent: minimal variants of (7) in fact pose a nontrivial problem for any such notion of deaccenting. The present section provides a brief reminder of the challenge. It also shows how QUESTIONS can account for examples such as (7), building on Büring (2015)’s account of second-occurrence focus.

I start by sketching an account of (7) in terms of QUESTIONS. As a first step, I note that Büring (2019a,b) — who the current discussion follows in rejecting local anaphoric

---

<sup>7</sup>A different and much-discussed illustration of apparent local anaphoric deaccenting is Rooth (1992)’s *farmer-example*:

- i. An AMERICAN/American farmer met a CANADIAN farmer

This example is certainly challenging for QUESTIONS. However, as far as I can see the support it offers to ANAPHORICITY is considerably weaker than it seems. An anaphoric approach, as outlined by Rooth (1992), could let the subject and the direct object be each other’s anaphoric antecedents (possibly with material internal to each of these arguments serving as antecedents to material in the other). But if that were possible, consider what would happen if ‘American’ and ‘Canadian’ were absent. In that case, the two arguments would be identical, so if mutual antecedence were possible, each argument would be given by virtue of the other, and the sentence should have the accent pattern #“A farmer MET a farmer” (cf. “He SAW you”), contrary to fact.

deaccenting — discusses ways in which such mismatches can be taken at face value by identifying a non-anaphoric question. Applied to the present case, it is conceivable that one simply reconstructs the narrow (adjective-level) question of what kind of convertible she brought, perhaps with the expectation that she brought an expensive one.

However, I believe that (7a) can also be understood as attempting to address the broader, context-given question of what she brought, with the exhaustive inference that she did not bring anything (not a book, not a yacht) other than a cheap convertible. These inferences suggest focus-marking at the level of the direct object (feeding exhaustivity), which raises the question of why the prosody of the sentence is as in (7a) rather than as in (7b). In other words, the mismatch returns.

I propose that what accounts for the mismatch is the combination of two foci: focus on the entire direct object, which feeds exhaustivity (and is responsible for negating a book, a yacht, etc.); and narrow focus on the adjective, which helps define a good question, as I discuss shortly. I believe that this combination of foci is due to the accommodation of an answer to the contextually-provided question, which the response in (7a) then corrects. In particular, suppose that the context included explicitly the answer that is already implied by it, namely  $\phi = [Exh \text{ She brought [an expensive convertible]}_F]$ .<sup>8</sup> If that were the case, (7a) would be an instance of so-called second-occurrence focus and would be understood as a correction of  $\phi$ . My proposal, then, is that the context in (7) licenses the accommodation of  $\phi$  and that the placement of prominence is the same as if  $\phi$  were actually there.<sup>9</sup> Building on Büring 2015 (whose analysis of second-occurrence focus, while couched in an anaphoric framework, translates directly into QUESTIONS), I take the parse of the responses in (7a), with an explicit or accommodated  $\phi$ , to be  $\psi = [Exh_1 \text{ She brought [a [cheap]}_{F2} \text{ convertible}]_{F1}]$ , where  $Exh_1$  binds the broad  $F1$  on the direct object but not the narrow  $F2$  on the adjective.  $F2$ , in turn, serves to define a question that includes both  $\phi$  and its attempted correction  $\psi$ . The question —  $\{\phi, \psi\}$ , did she bring an expensive convertible and nothing else or did she bring a cheap convertible and nothing else? — is good, and  $\psi$  answers it well and succeeds in negating  $\phi$ .<sup>10</sup>

What happens if we change ‘cheap’ to ‘red’ in (7)? To see what QUESTIONS predicts in this case we need to examine several potential parses. A first parse to consider, a direct counterpart to  $\psi$  above, would be  $\psi' = [Exh_1 \text{ She brought [a [red]}_{F2} \text{ convertible}]_{F1}]$ . Like  $\psi$ ,  $\psi'$  offers both an answer to the DP-wide question and an attempt to deny the accommodated  $\phi$ , through the narrow focus on the adjective. But the narrow focus is problematic.

<sup>8</sup>Here and below I use *Exh* to notate a focus-sensitive exhaustivity operator that is subject to the restriction of innocent exclusion (see Fox 2007, Chierchia, Fox, and Spector 2012, and Bar-Lev and Fox 2017).

<sup>9</sup>Evidence supporting the idea that  $\phi$  can indeed be accommodated in the present case was pointed out to me by Raj Singh (p.c.), who notes that after the material in the context of (7) has been uttered, the hearer may respond with the presuppositional “Again!”, which in turn can be interpreted with reference to the implied  $\phi$ . See also Wagner (2006) and Goodhue (2022) for discussion of accommodation in such contexts.

<sup>10</sup>Note that  $\psi$  is very similar to Schwarzschild (1999, 2020)’s parse. The difference is that, while the F-markers in Schwarzschild’s parse are only used as wildcards (exempting specific nodes from the need to have an anaphoric antecedent), those in  $\psi$  serve semantic purposes:  $F1$  feeds *Exh*, and  $F2$  feeds question formation.



For one thing, the question —  $\{\phi, \psi'\}$ , did she bring an expensive convertible and nothing else or did she bring a red convertible and nothing else? — seems intuitively bad and is indeed predicted to be bad by the proposal of Fox (2019).<sup>11</sup> Second,  $\psi'$  fails to negate the accommodated  $\phi$ .  $\psi'$ , then, is predicted to be unacceptable. A second parse to consider is  $\psi'' = [Exh_1 \text{ She brought a [red]}_{F1} \text{ convertible}]$ . Differently from  $\psi$  and  $\psi'$ ,  $\psi''$  ignores the DP-wide question and only attempts to deny  $\phi$ . Ignoring the question might perhaps be acceptable, as mentioned above, but (similarly to  $\psi'$  and for the same reason) the attempt of  $\psi''$  to deny  $\phi$  fails. A third parse to consider is  $\psi''' = [Exh_1 \text{ She brought [a red convertible]}_{F1}]$ . This parse ignores  $\phi$  and only addresses the DP-wide question. While the context, as discussed, makes the accommodation of  $\phi$  possible and perhaps preferable, I see no reason to think that the accommodation should be obligatory. We would expect  $\psi'''$  to be an acceptable parse, possibly with some residual oddness due to the ignoring of  $\phi$ . The problematic parses  $\psi'$  and  $\psi''$  result in pitch accent on ‘red’. The acceptable parse  $\psi'''$  results in accent on ‘convertible’. The prediction of QUESTIONS, then, is that only pitch accent on ‘convertible’ will be possible. This prediction is borne out, as the original observation by Wagner (2006) shows:<sup>12</sup>

- (8) (She has many expensive convertibles. Guess what she brought. . . )
- a. # She brought a RED convertible
  - b. She brought a red CONVERTIBLE

We just saw that the possibility of accommodating  $\phi$  offers the baseline, non-anaphoric version of QUESTIONS a handle on (7) and (8). If we adopt local, non-contrastive ANAPHORICITY, however, we lose the ability to predict the accent pattern, as already noted by Wagner (2006, p. 300) and discussed further by Büring (2019b, p. 145). In terms of the current discussion, the problem is as follows. We already saw that  $\psi'''$  corresponds to a reasonable discourse move (which, on pure QUESTIONS corresponds to the acceptable prominence pattern in (8b)). The further local anaphoric deaccenting of ‘convertible’ — in implementations such as Schwarzschild (1999, 2020)’s, where deaccenting is not subject to a contrast requirement — should not change that. This, in turn, incorrectly predicts that (8a) should be acceptable.<sup>13</sup>

<sup>11</sup>Fox argues that the elements of a question denotation, when exhausted, must partition the context set, which the elements of  $\{\phi, \psi'\}$  fail to do, given that they overlap and remain overlapping after exhaustification. Clearly any superset of  $\{\phi, \psi'\}$  will be bad as well.

<sup>12</sup>What accounts for the difference between the oddness of DP-level focus in (7b) and its acceptability in (8b)? It is conceivable that an economy principle rules out a broader question-feeding focus in (7b) given that a narrow one is available, a consideration that does not apply for (8b). However, it is also possible that the different answers (cheap vs. red) make a difference for the accommodation of  $\phi$ . I will not attempt to say more about this matter here.

<sup>13</sup>Within the literature that allows for local anaphoric deaccenting, all the responses to (8) that I am familiar with involve subjecting deaccenting to a contrast requirement in one way or another. We already saw Wagner (2006)’s response, which made all deaccenting contrastive. A different response is due to Stevens (2014), who maintains both contrastive focus and non-contrastive anaphoric deaccenting (similarly to Féry and Samek-Lodovici 2006 and Selkirk 2007, among others) but specifically requires contrast when prominence shifts

## 4 Focus in additive contexts

Goodhue (2022) provides an argument for contrast that illustrates the potential of ANAPHORICITY to impose exclusion-like restrictions on deaccenting in the absence of actual exclusion. Of course, in light of (3), which showed the futility of making [expensive convertible] and [red convertible] incompatible, he needs to relax Wagner (2006, 2012)’s contrast requirement. First, in line with Büring (2019a,b) and Wagner (2020), he weakens the locality of the contrast requirement: rather than checking strictly at the level of the sister node (as in Wagner 2006, 2012), Goodhue allows for the contrast requirement to be satisfied anywhere in the structure. This change is not on its own sufficient: as discussed in Katzir 2013, in the absence of exhaustification the acceptable response “It is required that she bring a red convertible” in (3) does not contrast with the context-setting sentence “It is required that she bring an expensive convertible” at *any* level in the structure. Goodhue (2022) therefore makes a second modification to the notion of contrast itself. Rather than requiring that contrasting elements contradict each other, he requires only that the anaphoric antecedent be innocently excludable given the assertion. In other words, when a sentence is uttered, there must be an innocently excludable alternative to it that is salient in the discourse. This allows ANAPHORICITY to mimic the effects of exhaustification in (1)–(3): in (1) and (3) the context-setting sentence is innocently excludable given the assertion, so it counts as a good anaphoric target, while in (2) the context-setting sentence is not innocently excludable given the assertion, so it does not count as a good anaphoric target.<sup>14</sup>

Since, as discussed in section 2, the ingredients of QUESTIONS seem independently needed, bringing back ANAPHORICITY and writing innocent exclusion into it might seem superfluous. However, Goodhue suggests that QUESTIONS misses an important generalization covering both denials and additives and that a suitable version of ANAPHORICITY can help. The generalization is that alternatives that are not innocently excludable can lead to deviance even when no *actual* exclusion takes place. The following illustrates:

- (9) (What kinds of convertible do you have? Well, . . . )
- a. I have EXPENSIVE convertibles and I have CHEAP convertibles
  - b. I have RED convertibles and I have BLUE convertibles
  - c. # I have EXPENSIVE convertibles and I have RED convertibles
  - d. # I have RED convertibles and I have EXPENSIVE convertibles

onto an adjunct. While such responses avoid the problem of (8), they do so at the cost of further stipulations. And if the discussion above is correct, the problem these stipulations attempt to address do not arise for QUESTIONS in the first place. Moreover, by relying on contrast such proposals become vulnerable to the argument against contrast discussed in section 4.

---

<sup>14</sup>A different revival of contrastive ANAPHORICITY is due to Wagner (2020), who maintains the strict notion of contrast-as-contradiction in Wagner (2006, 2012) but evaluates it with respect to structures that may have been exhausted (presumably subject to innocent exclusion; see Büring 2019a,b). Differently from his earlier implementation of contrast and similarly to Goodhue (2022)’s proposal, Wagner (2020)’s version is compatible with the original paradigm discussed in section 1. The argument from (11) below against Goodhue (2022)’s notion of contrast applies equally well to Wagner (2020)’s notion.

Above we saw that QUESTIONS explained the felicity of (1) and the oddness of (2) by the ability of the former and the inability of the latter to deny the target sentence. The failure of (2), in turn, was attributed to exhaustification being subject to a condition of innocent exclusion (along with limitations of context's ability to eliminate alternatives). The contrast between the felicity of (9a) and (9b) on the one hand and the oddness of (9c) and (9d) on the other hand seems similar to the contrast between (1) and (2), but now an explanation in terms of denial seems unlikely: the context here is additive, with the second conjunct in each example adding to the first conjunct rather than denying it. Goodhue concludes that while focus is sensitive to innocent exclusion, it does not always require the actual exclusion of alternatives. This is exactly what his modified version of ANAPHORICITY, which checks for innocent exclusion but does not require actual exhaustification, accomplishes.

I believe that rather than supporting contrastive ANAPHORICITY, the broader picture arising from additive contexts in fact argues against it. Note, first, that the additive context in (9) is a very specific one: it is a context in which the speaker offers a menu of possible choices. As far as I can tell, such contexts require a partitioning of the space of choices by the items on the menu. The items form such a partition in (9a) and (9b). In the case of the former, the set of expensive convertibles and the set of cheap convertibles are disjoint. In the case of the latter, the set of red convertibles and the set of blue convertibles are disjoint. In (9c) and (9d), on the other hand, the items fail to form a partition, since the set of expensive convertibles and the set of red convertibles are not, generally, disjoint.<sup>15</sup> This property of menus of choices would of course require an explanation, but I see no reason to think that an anaphoric account of focus would have an advantage in this respect.

Going beyond menus, simple variants of (9) show that contrastive anaphoricity faces serious challenges in accounting for focus in additive contexts. For example, note that (9c) and (9d) do not improve if we maintain the overlap between the items (so that the menu does not form a partition) but extend the menu so that every item has a contrasting anaphoric target:<sup>16</sup>

- (10) (What kinds of convertible do you have? Well, ...) # I have EXPENSIVE convertibles, I have RED convertibles, I have CHEAP convertibles, and I have BLUE convertibles

The variant in (10) is no better than the ones in (9c) and (9d), even though in (10) every conjunct has a salient contrastive alternative. This is consistent with the partition requirement on menus of choices but is surprising for an account of (9c) and (9d) in terms of a contrastive anaphoric requirement.

---

<sup>15</sup>Note that 'red convertibles' cannot be strengthened by exhaustification to mean red but not expensive. This is so because, analogously to the case of (2), 'expensive convertibles' is not innocently excludable for the assertion 'red convertibles' given the alternative 'cheap convertibles'. Similarly, 'expensive convertible' cannot be strengthened by exhaustification to mean expensive but not red.

<sup>16</sup>When the price-related items are adjacent and the color-related items are adjacent (e.g., if the order is expensive-cheap-red-blue), I believe it is possible to read the sentence as offering two distinct partitions (see also note 17). I have interleaved the price-related conjuncts and the color-related ones in (10) in order to make this kind of double-partition reading less accessible.

Note further that if we move to additive contexts that do not involve menu items, focus on ‘expensive’ and ‘red’ becomes perfectly acceptable:

- (11) (Tell me more about this convertible.) Well, it is a RED convertible. And it is an EXPENSIVE convertible.

For an attempt to derive the pattern of oddness above from modifications of ANAPHORICITY, the felicity of (11) is puzzling: if ‘red’ and ‘expensive’ cannot serve as anaphoric targets for one another in denials (2) or menu-based additives (9c)/(9d), why is it that they can do so in (11)?

For QUESTIONS, on the other hand, the felicity of (11) is unsurprising. As in earlier examples, focus defines a good question, or rather two good questions: what color the convertible is and what its price range is, both of them sub-questions of the contextually-suggested question of what kind of convertible it is.<sup>17</sup> And — in stark contrast with the earlier cases of denial — the fact that exhaustification of ‘red’ cannot entail either the truth or the falsity of ‘expensive’ and that exhaustification of ‘expensive’ cannot entail either the truth or the falsity of ‘red’ in (11) does not hurt the discourse coherence of the current additive sentences in any way.<sup>18</sup>

Additive contexts, then, show that a contrastive anaphoric condition is not just unnecessary; it is actually harmful.

## 5 Conclusion

I conclude that the felicity of focus in discourse depends on the felicity of the questions and answers that focus feeds. Anaphoric conditions on focus, at least as currently understood in the literature, are unhelpful at best and often damaging.

## References

- Allerton, D.J. 1978. The notion of givenness and its relations to presupposition and to theme. *Lingua Amsterdam* 44:133–168.  
Anvari, Amir. 2021. Cell effability and apparent redundancy effects. Ms., June 2021.

---

<sup>17</sup>In principle, as pointed out to me by Moysh Bar-Lev (p.c.), one could try to rescue (9c) and (9d) above by understanding them as responding to two sub-questions. However, I believe that the menu context of those sentences makes such an understanding difficult. Specifically, the speaker will be implying two separate menus, one based on color and the other based on price, each having just one menu option. To the extent that single-option menus are odd, the understanding of these examples in terms of two sub-questions can be expected to be dispreferred. If the answer offers multiple options for each sub-menu, the answer can be expected to improve (see also note 16).

<sup>18</sup>This is not to say that exhaustification is entirely inert in the present case. Specifically, obligatory and very local exhaustification has recently been argued to be responsible for the inference that a red convertible is totally red (Paillé 2021, 2022).

- Bade, Nadine, and Konstantin Sachs. 2019. EXH passes on alternatives: A comment on Fox and Spector (2018). *Natural Language Semantics* 27:19–45.
- Bar-Lev, Moshe E, and Danny Fox. 2017. Universal free choice and innocent inclusion. In *Semantics and Linguistic Theory*, ed. Dan Burgdorf, Jacob Collard, Sireemas Maspong, and Brynhildur Stefánsdóttir, volume 27, 95–115.
- Bar-Lev, Moshe E., and Danny Fox. 2022. On fatal competition and the nature of distributive inferences. Ms., TAU and MIT, December 2022.
- Beaver, David, and Brady Clark. 2008. *Sense and sensitivity: How focus determines meaning*. Oxford: Blackwell.
- Bolinger, Dwight. 1972. Accent is predictable (if you’re a mind-reader). *Language* 48:633–644.
- Büring, Daniel. 2015. A theory of second occurrence focus. *Language, Cognition and Neuroscience* 30:73–87.
- Büring, Daniel. 2016. *Intonation and meaning*. Oxford University Press.
- Büring, Daniel. 2019a. Focus, questions and givenness. In *Questions in discourse*, ed. Klaus von Heusinger, Edgar Onea, and Malte Zimmermann, volume 36 of *Current Research in the Semantics / Pragmatics Interface*, 6–44. Holland: Brill.
- Büring, Daniel. 2019b. Topless and salient—convertibles in the theory of focus. In *The semantics of plurals, focus, degrees, and times*, ed. Daniel Altshuler and Jessica Rett, 137–155. Cham: Springer International Publishing.
- Chafe, Wallace L. 1974. Language and consciousness. *Language* 50:111–133.
- Chierchia, Gennaro, Danny Fox, and Benjamin Spector. 2012. Scalar implicature as a grammatical phenomenon. In *Semantics: An international handbook of natural language meaning*, ed. Paul Portner, Claudia Maienborn, and Klaus von Heusinger, volume 3, chapter 87, 2297–2331. Mouton de Gruyter.
- Chomsky, Noam. 1969. *Deep structure, surface structure, and semantic interpretation*. Indiana University Linguistics Club.
- Dretske, Fred I. 1972. Contrastive statements. *The Philosophical Review* 81:411–437.
- Féry, Caroline, and Vieri Samek-Lodovici. 2006. Focus projection and prosodic prominence in nested foci. *Language* 82:131–150.
- von Fintel, Kai. 1994. Restrictions on quantifier domains. Doctoral Dissertation, University of Massachusetts, Amherst, MA.
- Fox, Danny. 2007. Free choice disjunction and the theory of scalar implicatures. In *Pre-supposition and implicature in compositional semantics*, ed. Uli Sauerland and Penka Stateva, 71–120. Palgrave-Macmillan.
- Fox, Danny. 2019. Partition by exhaustification: Comments on Dayal 1996. In *Proceedings of Sinn und Bedeutung*, ed. Uli Sauerland and Stephanie Solt, volume 22, 403–434.
- Fox, Danny, and Roni Katzir. 2011. On the characterization of alternatives. *Natural Language Semantics* 19:87–107.
- Fox, Danny, and Benjamin Spector. 2018. Economy and embedded exhaustification. *Natural Language Semantics* 26:1–50.
- Goodhue, Daniel. 2022. All focus is contrastive: On polarity (verum) focus, answer focus,

- contrastive focus and givenness. *Journal of Semantics* 39:117–158.
- Groenendijk, Jeroen, and Martin Stokhof. 1984. Studies in the semantics of questions and the pragmatics of answers. Doctoral Dissertation, Universiteit van Amsterdam, Amsterdam.
- Halliday, Michael A. K. 1967. Notes on transitivity and theme in English, Part II. *Journal of Linguistics* 3:199–244.
- Jackendoff, Ray. 1972. *Semantic interpretation in generative grammar*. Cambridge, MA: MIT Press.
- Jacobs, Joachim. 1991. Focus ambiguities. *Journal of Semantics* 8:1–36.
- Katzir, Roni. 2013. A note on contrast. *Natural Language Semantics* 21:333–343.
- Katzir, Roni. 2014. On the roles of markedness and contradiction in the use of alternatives. In *Semantics, pragmatics, and the case of scalar implicatures*, ed. Salvatore Pistoia Reda, 40–71. Palgrave-Macmillan.
- Katzir, Roni, and Raj Singh. 2015. Economy of structure and information: Oddness, questions, and answers. In *Proceedings of Sinn und Bedeutung 19*, ed. Eva Csipak and Hedde Zeijlstra, 302–319.
- Kratzer, Angelika. 1991. The representation of focus. In *Semantics: An international handbook of contemporary research*, ed. Arnim von Stechow and Dieter Wunderlich, 825–834. Berlin: Walter de Gruyter.
- Krifka, Manfred. 2004. Focus and/or context: A second look at second occurrence expressions. In *Context-dependence in the analysis of linguistic meaning*, ed. Hans Kamp and Barbara Partee, 187–207. Elsevier.
- Ladd, Robert D. 1980. *The structure of intonational meaning*, chapter 3–4. Indiana University Press.
- Paillé, Mathieu. 2021. The distribution of controlled exhaustivity. In *Semantics and Linguistic Theory*, volume 30, 843–860.
- Paillé, Mathieu. 2022. Strengthening predicates. Doctoral Dissertation, McGill University, Montreal, Quebec.
- Roberts, Craige. 1996. Information structure in discourse: Towards an integrated formal theory of pragmatics. In *Papers in semantics*, ed. Jae-Hak Yoon and Andreas Kathol, volume 49 of *Working Papers in Linguistics*, 91–136. The Ohio State University.
- Rochmont, Michael. 1986. *Focus in generative grammar*. Amsterdam, The Netherlands: John Benjamins Publishing Company.
- Rooth, Mats. 1992. A theory of focus interpretation. *Natural Language Semantics* 1:75–116.
- Sauerland, Uli. 2004. Scalar implicatures in complex sentences. *Linguistics and Philosophy* 27:367–391.
- Sauerland, Uli. 2005. Don’t interpret focus! Why a presuppositional account of focus fails, and how a presuppositional account of givenness works. In *Proceedings of Sinn und Bedeutung 9*, ed. Emar Maier, Corien Bary, and Janneke Huitink, 370–384. Nijmegen: University of Nijmegen.
- Schwarzschild, Roger. 1999. GIVENness, AvoidF and other constraints on the placement

- of accent. *Natural Language Semantics* 7:141–177.
- Schwarzschild, Roger. 2020. The representation of focus, givenness and exhaustivity. In *Making worlds accessible. essays in honor of Angelika Kratzer*, ed. Rajesh Bhatt, Ilaria Frana, and Paula Menendez Benito, 167–192.
- Selkirk, Elisabeth. 1984. *Phonology and syntax : the relation between sound and structure*. Cambridge, Mass.: MIT Press.
- Selkirk, Elisabeth. 2007. Contrastive focus, givenness and the unmarked status of “discourse-new”. In *Interdisciplinary Studies on Information Structure*, ed. Caroline Féry, Gisbert Fanselow, and Manfred Krifka, volume 6, 125–146.
- Spathas, Giorgos. 2010. Focus on anaphora: Accent placement and the syntax and semantics of anaphors. Doctoral Dissertation, Universiteit Utrecht.
- von Stechow, Arnim. 1981. Topic, focus and local relevance. In *Crossing the boundaries in linguistics*, ed. Wolfgang Klein and Willem J.M. Levelt, 95–130. Springer.
- Stevens, Jon Scott. 2014. Against a unified analysis of Givenness and Focus. In *Proceedings of WCCFL 31*, ed. Robert E. Santana-LaBarge, 438–446.
- Wagner, Michael. 2006. Givenness and locality. In *Proceedings of SALT 16*, ed. Jonathan Howell and Masayuki Gibson, 295–312. Ithaca, NY: CLC Publications.
- Wagner, Michael. 2012. Focus and givenness: a unified approach. In *Contrasts and positions in information structure*, ed. Ivona Kučerová and Ad Neeleman, 102–147. Cambridge: Cambridge University Press.
- Wagner, Michael. 2020. Prosodic focus. In *The Wiley Blackwell companion to semantics*, ed. Gutzmann Daniel, Lisa Matthewson, Cécile Meier, Hotze Rullmann, and Thomas Ede Zimmermann. Wiley-Blackwell.
- Williams, Edwin. 1997. Blocking and anaphora. *Linguistic Inquiry* 28:577–628.