

# *Just* perfect, *simply* the best: an analysis of emphatic exclusion.\*

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## 1 Emphatic Exclusives

When used in conjunction with a predicate at the extreme of a scale, the *exclusive* modifiers *just* and *simply* convey a distinctive *emphatic* effect, whereby they strengthen the contribution of the adjacent expression (Lee 1987; Morzycki 2012; Coppock and Beaver 2014; Wiegand 2017; Laparle and Truswell 2018). (1) presents three examples: following Lee (1987), I refer to these uses as Emphatic Exclusives, henceforth abbreviated as EEs.

- (1) a. The essay is *just perfect*.
- b. Implementing real gun control in the US is *just impossible*.<sup>1</sup>
- c. Michael Jordan is *simply the best* basketball player ever.<sup>2</sup>

These uses represent a puzzling case for theories of exclusivity, and for the study of alternative-based meanings more broadly. In particular, EEs’ emphasis seems to be running in the opposite direction from the mitigating flavor conveyed by ordinary exclusives, whose contribution is typically paraphrased as “no more than X” (Coppock and Beaver 2014), and can therefore be construed as putting an upper-boundary to the the strength of the relevant alternatives.

- (2) a. The essay is *just/simply* ok. ≈ no more than ok
- b. Don’t worry, it’s *simply/just* a precaution. ≈ no more than a precaution

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<sup>1</sup>[http://www.huffingtonpost.com/2012/07/22/john-mccain-gun-control\\_n\\_1693433.html](http://www.huffingtonpost.com/2012/07/22/john-mccain-gun-control_n_1693433.html)

<sup>2</sup><https://www.amazon.com/1996-1997-NBA-Championship-Season-Chicago/dp/B00G4E3X82>

The puzzle presented by EEs can be further articulated into two distinct pieces. First, what semantic/pragmatic mechanism underlies the emphatic contribution of these modifiers? Second, how is this contribution linked to the status of the adjacent predicate as denoting the extreme of a scale? In this article, I develop an analysis of EEs that treats them as a special kind of alternative-targeting operator, whereby the speaker signals that more specific descriptions than the one they just asserted – modeled here as *granularity-based* alternatives – are not *assertion-worthy* in the context – i.e., they need not be asserted in order for a complete representation of the facts to be provided. Following Roberts (2012), I implement the notion of a complete representation of the facts as a *complete answer* to the Question Under Discussion, a goal that the interlocutors are under pressure to achieve as early as possible in the conversation to advance in their quest for information.

On this analysis, the emphatic effect of EEs with extreme predicates emerges from the interaction between this particular type of exclusivity and the logical properties of scalar terms: since the only scenario in which granularity-based alternatives are not assertion-worthy is one in which the truth-conditions of an extreme predicate are fully met, the use of an EE amounts to signaling that the scalar extreme is fully reached, as opposed to being merely approximated – hence, the intensification effect.

Looking at the broader picture, the analysis leads us to expand – and revise accordingly – our understanding of the category of exclusivity in at least two different senses. First, it highlights granularity as another possible strength ordering according to which the relevant alternatives can be ranked and ultimately targeted by exclusives; second, it provides further evidence highlighting a split between two broad types of exclusive operators in English and in other languages: one type – exemplified by *only* – necessarily rules out alternatives based on their truth value – i.e., *qua* false; the other type, which includes *just* and *simply*, can additionally rule out alternatives based on a broader variety of pragmatic dimensions – including, but not limited to, their assertion-worthiness in the conversational context.

The paper is divided as follows: §2 discusses the main accounts of exclusive operators proposed in the previous literature; §3 outlines the distinctive properties of EEs; §4 lays out the basic ingredients of the analysis; §5 provides a denotation for EEs; §6 returns to the broader picture, discussing the implication of the analysis for the study of exclusivity; §7 concludes.

## 2 The logical core of exclusivity: an overview

Scalar expressions typically evoke higher-ranked scale mates, which are compatible with the meaning of the original form, and could therefore potentially apply in the context. Describing an essay as *ok*, for example, doesn’t preclude the possibility that the essay could have been *good*, or even *perfect*. I call this set of alternatives  $\text{Alt}(\alpha)$ , where  $\alpha$  indicates the expression whose stronger scale-mates are considered.

(3) The essay is ok.  $\text{Alt}(\text{ok}) = \{ \text{“Good”}, \text{“Perfect”} \}$

Such alternatives, in turn, can be targeted by *exclusive modifiers*, a set of expressions that serve the purpose of excluding them from consideration in the communicative context (see Rooth 1992; Beaver and Clark 2008; Grosz 2011; Coppock and Beaver 2014; Orenstein and

Greenberg 2013; Wiegand 2017, 2020 among others).<sup>3</sup> Among other properties, exclusives have been shown to be able to target alternatives from a wide array of syntactic categories, including adjectives (in (4-a)), verbs (in (4-b)), and quantifiers (in (4-c)). Excluded alternatives are marked with strikethrough.

- |     |    |   |  |
|-----|----|---|--|
| (4) | a. | The essay is <i>just</i> ok.              | Alt(ok)={“good”, “perfect”}                  |
|     | b. | Mary <i>merely</i> skimmed the article.   | Alt(skimmed)={“ <del>read in detail</del> ”} |
|     | c. | Mary ate <i>just</i> some of the cookies. | Alt(Some)={“ <del>many</del> ”, “all”}       |

Furthermore, exclusives can operate over different types of strength-orderings. These include run-of-the-mill logical entailment scales (in (4-a) and (4-c)), as well as scales based on world knowledge (in (5-a)-(4-b)) or subjective evaluation (in (5-b)).

- |     |    |  |                         |
|-----|----|--|-------------------------|
| (5) | a. | Mary is <i>only</i> a freshman.                      | World-knowledge ranking |
|     | b. | Unfortunately, it was <i>only</i> Bill on the phone. | Evaluative ranking      |

Vis-a-vis this space of variation, scholars have been striving to extract a semantic core of exclusivity applicable to the different instantiations of these operators, with two ideas emerging as common to the different proposals. One idea is that exclusives are taken to combine semantically with proposition-level objects, even though they tend to be syntactically embedded within the proposition; the basic idea is that alternative propositions are derived by replacing the material adjacent to the exclusive with contextually relevant expressions of the same syntactic category and semantic type. The resulting alternative set is shown in (6), with the excluded proposition-level alternatives marked with strikethrough.

- |     |   |
|-----|---|
| (6) | The essay is <i>just/simply/merely/only</i> ok. |
|     | a. Alt(ok)={“Good”, “perfect”}                  |
|     | b. Alternative propositions:                    |
|     | • <del>The essay is [good].</del>               |
|     | • <del>The essay is [perfect].</del>            |

As for the mechanism ensuring that the alternative set targeted by the exclusive is properly constrained, different proposals have been suggested, with two emerging as especially prominent. One proposal, formulated by Rooth (Rooth 1985, 1992), is that exclusives associate with *focus*. In this system, exclusives combine with alternatives recursively generated by combining in pointwise fashion the focus value of the constituent in the scope of the exclusive with the ordinary value of the other constituents in the sentence. Crucially, only a subset of the alternatives among those that belong to the focus value enter the composition: this subset is determined by a syntactically covert semantic variable C, which combines with the constituent and yields a subset of the focus value of the constituent containing its ordinary value and at least one other element. An alternative proposal is that exclusives associate with a Question under Discussion, or QUD (Beaver and Clark 2008; Coppock and Beaver 2014),

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<sup>3</sup>Alternatives, of course, can also be excluded in the absence of an overt exclusive operator— e.g., via inferences such as scalar implicatures. Whether this mechanism of exclusion is pragmatic or compositional remains an open issue, which goes beyond the scope of this article. See Chierchia (2017) for a review of the different arguments involved in the debate.

an idea developed within Roberts’ QUD-based discourse framework (Roberts 1996/2012; see also §5 below). On this view, propositional alternatives are assembled via a similar compositional mechanism as in Rooth’s account; however, they are pragmatically constrained by discourse structure, as opposed to a dedicated compositional operator.<sup>4</sup> As a result, an alternative is part of the set targeted by the exclusive only if it represents a potential answer to the QUD; on this view the alternatives targeted by an exclusive are constrained by *Relevance*, the same organizing principle that constrains the felicity of conversational moves at large.<sup>5</sup>

The other idea is that the denotation of an exclusive comes with two essential components: a *prejacent* – i.e., the proposition modified by the exclusive, which is typically presupposed to be true; and a quantificational part, which negates the relevant alternatives – i.e., the “no more than” contribution. Below I provide two possible denotational schemas for exclusives, both of which implement each of these two ideas. (7) reports a Rooth-style proposal from Wiegand (2017a), where an exclusive operator takes as arguments a prejacent proposition  $p$ , an alternative set  $C$ , and an ordering  $\leq$  on  $C$  that is supplied by the context. Different flavors of exclusivity can be accommodated by assigning different values to  $C$  and  $\leq$ .

(7) Wiegand (2017):  

$$\llbracket \text{EXC} \rrbracket = \lambda C_{\leq} \lambda p. \lambda w. \forall q [(q \in C_{\leq} \wedge q(w)) \rightarrow q \leq p]$$

(8) offers a QUD-based proposal by Coppock and Beaver (2014). The template is similar in spirit to Wiegand’s one, but different in the formal implementation in that it combines two separate functions to capture the presupposed and the quantificational component of the exclusive. The quantificational part is captured by the function  $\text{MAX}_S$ . This function takes a proposition  $p$  as argument and requires that every alternative must be ranked lower than  $p$  according to a contextually salient ordering  $\leq_S$ ; as discussed above, a proposition is relevant, and hence part of the target alternative set, if it addresses the Current Question under Discussion (abbreviated here at  $\text{CQ}_S$ ). The presuppositional part (introduced by a colon) is modeled via a  $\text{MIN}$  component requiring that there is a true proposition that addresses the QUD and is at least as strong as  $p$ , which essentially ensures that the prejacent holds true in the context (see Beaver and Clark 2008 for further discussion on this point). Combined together, the two functions lead to the template in (8-c). The possibility of having different flavors of exclusives is accommodated by allowing for variation in the value of  $\text{CQ}_S$  and the value of  $\leq_S$ .

(8) Coppock and Beaver (2014):

- a.  $\text{MAX}_S(p) = \lambda w. \forall q \in \text{CQ}_S [q(w) \rightarrow p \geq_S q]$
- b.  $\text{MIN}_S(p) = \lambda w. \exists q \in \text{CQ}_S [q(w) \wedge q \geq_S p]$
- c.  $\llbracket \text{EXC} \rrbracket_S = \lambda p \lambda w: \text{MIN}_S(p)(w). \text{MAX}_S(p)(w)$

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<sup>4</sup>Specifically, Beaver and Clark (2008) suggest that there must be a *congruence* relationship between the alternative set denoted by the QUD and the alternatives given by the focal meaning of the sentence containing the exclusive, such that the QUD – whether implicit or explicit – denotes a subset of alternatives given by the focal meaning of the sentence. See Beaver and Clark (2008): 37 for further discussion on how such a congruence relationship can be modeled.

<sup>5</sup>Alternative mechanisms for generative alternatives besides the two presented here have been proposed: among others, see von Stechow (1990); Krifka (2001) on *structured propositions*.

Both these proposals are flexible enough to capture a wide array of the observed variants of exclusives in English and other languages. In particular, Coppock and Beaver (2014) argue that the template above is sufficiently powerful to account for the core semantics of as many as 22 uses of exclusive particles, including different variants of *only*, *just*, *simply*, *merely*, *exclusively*, *solely*, capturing the lingering differences between the various variants via a series of type-shifting operations. However, none of these models – and no proposal in the literature more broadly – appears to be amenable to being immediately extended to the analysis of EEs: the behavior of these modifiers diverges from the one of canonical exclusives in several important respects, as I know turn to discuss.

### 3 The empirical properties of EEs

#### 3.1 EEs contribute intensification, not attenuation

The signature property of EEs is their emphatic contribution. As noted above, this effect contrasts with the mitigating effect normally brought about by regular exclusives, where the move of ruling out semantically or pragmatically stronger alternatives imposes an upper-boundary on how high the elements described are on the relevant scale. This difference clearly emerges, for instance, when we consider how exclusives interact with positive evaluative adjectives of different strength. On the one hand, adding an exclusive to a mid-scale adjective such as *ok* suggests that the speaker holds a negative attitude towards the situation (in (9-a)); the exclusive would be instead out of place in a context in which the speaker is expressing enthusiasm (in (9-b)).

- (9) a. Meh! Your essay is *just* ok. I'm a little disappointed.  
 b. #Congrats! Your essay is *just* ok. I'm so proud of you!

No such mitigation effect, however, emerges when the exclusive occurs in the proximity of an extreme predicate; in fact, telling a student that their essay is “just perfect” – as in (10-b) – results in a stronger compliment than uttering the same proposition with the bare, unmodified adjective; similarly, the presence of the exclusive is not compatible with having a negative attitude (in (10-a)).

- (10) a. #Meh! Your essay is *just* perfect. I'm a little disappointed.  
 b. Congrats! Your essay is *just* perfect. I'm so proud of you!

The strengthening contribution of these modifiers can be broken down into two components. First, EEs convey an *anti-hyperbolic* flavor: by using *just* and *simply*, the speaker appears to be signaling that the meaning of the prejacent should be taken *as is*, in a way that maximally adheres to its logical meaning – as opposed to an instance of exaggeration, overstatement, or loose talk. Second, EEs convey a flavor of epistemic certainty: they imbue the description uttered by the speaker with a sense of definitiveness, hindering possible elaborations aimed at providing a more fine-grained picture of the facts. This is shown especially clearly by the fact that, once an EE has been used, it is no longer possible for the speaker to provide further details on the description they just provided (in (11-a)); such elaborations are instead perfectly natural when no EE has been used (in (11-b)).

- (11) a. The essay is *just/simply perfect* – # and by that I mean *absolutely perfect*.  
 b. The essay is *perfect* – and by that I mean *absolutely perfect*.

The combination of these two effects – lack of hyperbole and resistance to further elaboration – crucially emerges in the paraphrases that are normally provided to characterize the meaning of these modifiers. Specifically, EEs can typically be paraphrased with expressions such as “with no need for further qualification”, or “that’s all that needs to be said” (Wiegand 2017). These paraphrases crucially appear to have an exclusive flavor of sorts: they intuitively invite the listener to refrain from considering possible elaborations on the meaning of the prejacent, suggesting that what the speaker said is somehow sufficient to provide a definitive characterization of the facts. However, they appear to be signaling that possible elaborations/qualifications are not worth exploring in the conversation, rather than that they are false. In this sense, these paraphrases non-trivially differ from the “no more than X” formulation normally suggested to capture the contribution of ordinary exclusives.

(12) **Ordinary exclusives:**

- a. The essay is *just/simply* ok. ≈ no more than ok  
 b. Don’t worry, it’s *simply/just* a precaution. ≈ no more than a precaution

(13) **Emphatic exclusives:**

- a. Implementing real gun control in the US is *just impossible*. ≠ no more than impossible  
 b. The essay is *just perfect*. ≠ no more than perfect

### 3.2 Not all exclusives can be emphatic

Emphatic readings are only available with a subset of exclusive operators – in English, *just* and *simply*. By contrast, other exclusives such as *merely* and *only* aren’t able to license an emphatic interpretation in these contexts, and are only compatible with a canonical reading.

- (14) a. #The essay is *only/merely* perfect.  
 b. #Michael Jordan is *only/merely* the best basketball player ever.

Moreover, the emphatic contribution of EEs is always contingent on the presence of a predicate denoting a scalar extreme. As soon as we plug in a milder, non-extreme counterpart of the predicate, only a regular, non-emphatic reading remains available, as shown in (15); accordingly, the modification with *only* and *merely* becomes available in such environments.

- (15) a. #Congrats! Your essay is *just/simply* good. Emphatic  
 b. Meh. Your essay is *just/simply* good – not *perfect*. Ordinary  
 c. Meh. Your essay is *only/merely* good – not *perfect*. Ordinary

This suggests a picture is one in which *only/merely* and emphatic uses of *just/simply* are effectively in complementary distribution: whenever emphatic uses of *just/simply* are possi-

ble, *only/merely* are not licensed; and whenever *only/merely* are licensed, emphatic uses of *just/simply* are not possible.<sup>6</sup>

Notably, the same split between exclusives that can and cannot take on an emphatic contribution is robustly attested cross-linguistically. (16) shows examples for the equivalents of *simply* in German and Italian; note that, similarly to English, equivalents of *only* cannot have this function instead. Similar patterns are attested in Spanish, French, Polish, Hebrew and Dutch, among many other languages.<sup>7</sup>

- (16) a. Il cibo era *semplicemente*/#*solo* favoloso.  
 The food was simply/only amazing.  
 ‘The food was simply/#only amazing’. Italian
- b. Das Essen war *einfach*/#*nur* wunderbar.  
 The food was simply/only amazing.  
 ‘The food was simply/#only amazing’. German

These empirical observations support two important generalizations. First, the fact that emphatic uses of exclusives are not an idiosyncrasy of English, but are instead widely attested cross-linguistically, indicates that the connection between exclusion and emphasis is conceptually motivated; specifically, there must be something about the semantic and pragmatic profile of exclusives that makes it possible for these operators to combine with extreme predicates and yield the distinctive emphatic effect. Second, the link between exclusion and emphasis does not hold across the board, but is crucially limited to a subset of the exclusives operators available in a language – namely, to those which translate as *simply*, or a version thereof, and not to those which translate as *only*.<sup>8</sup>

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<sup>6</sup>Throughout the article I treat emphatic *just* and *simply* as semantically/pragmatically equivalent, based on the observation that they can both convey the emphatic effects discussed above. Yet, it is important to note that this doesn’t mean that the two modifiers should be seen as fully interchangeable. A distributional difference between them, in particular, can be observed with respect to *simply*’s ability to appear within a Noun Phrase, which *just* doesn’t seem to share; the two, however, can both occur outside the NP.

- (i) a. \*That was a *just* perfect essay.  
 b. That was a *simply* perfect essay.
- (ii) a. That was *just* a perfect essay.  
 b. That was *simply* a perfect essay.

In light of the fact that the two modifiers seem to be providing an equivalent contribution in (ii), I consider the contrast in (i) as being linked to a difference in the morpho-syntactic properties of these two modifiers, as opposed to their semantics. More broadly, the analysis I am going to develop in this paper is geared towards capturing the shared contribution of emphatic *simply* and *just*, and will be based on examples in which the contribution of the two modifiers appear to be similar enough to warrant a unified account. Again, this doesn’t mean that the two modifiers are predicted to have the very same distribution; insofar as their morpho-syntactic properties might not be identical, it is in fact to be expected that, while largely overlapping, their distribution might also not be perfectly identical. I leave an account of these differences to further work.

<sup>7</sup>Note that EEs seem to be formed via different morpho-syntactic strategies across languages. In German, for example, *einfach* can combine with *nur* ‘only’ and still convey an emphatic contribution, even though *nur* ‘only’ cannot convey emphasis per se; in French, *simplement* ‘simply’ can convey emphasis only in combination with universal quantifier *tout* ‘completely’.

<sup>8</sup>Tomaszewicz (2012) discusses a use of Polish *aż* ‘only’ which is paraphrased as ‘no less than’ and resembles EEs in inducing an intensification effect with extreme predicates. However, this use does not show the other

### 3.3 EEs lack truth-conditional content

Canonical exclusive operators typically change the truth-conditions of the sentence: by making the alternatives false, they restrict the range of situations in which a given description can serve as a truthful representation of the world. (17) and (18) illustrate two cases.

- (17) **Fact:** Mary invited Bill and Sam.
- a. Mary invited Bill. True
  - b. Mary invited *just* Bill. False
- (18) **Fact:** The essay is perfect.
- a. The essay is ok. True
  - b. The essay is *just* ok. False

EEs, however, do not align with this pattern. It is indeed very difficult to think of a context in which the sentence with the exclusive and its unmodified counterpart have divergent truth conditions – that is, a context in which the use of *perfect* or *the best* yields a true description, while while the use of *just perfect* or *simply the best* a false one.

- (19) **Fact:** ????
- a. The essay is perfect. True
  - b. The essay is *just* perfect. False
- (20) **Fact:** ????
- a. Michael Jordan is the best. True
  - b. Michael Jordan is *simply* the best. False

A related empirical property of EEs is that they don't appear to interact with logical operators, similar to what is the case for linguistic expressions that don't belong to the at-issue content of the utterance (see Tonhauser et al. 2013 for an overview). Again, ordinary exclusives behave differently in this respect. Let us consider negation as an example. As far as canonical exclusives are concerned, negation straightforwardly interacts with exclusivity, flipping the truth value of the proposition. (21) provides an example.

- (21) **Fact:** The essay is perfect.
- a. The essay is **not** ok. False
  - b. The essay is **not** *just* ok. True

However, this effect is not observed with EEs. To begin with, these modifiers appear to be significantly degraded when occurring in the scope of negation. Second, even leaving the ungrammaticality of (22-b) and (23-b) aside, it seems to be very difficult to make heads or tails with their effects on the truth conditions. As a result, the same uncertainty remains as to what the truth value of these sentences really is.

- (22) a. The essay is **not** perfect. True

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distinctive features of EEs discussed in §3.3-3.4; in particular, it appears to be targetable by negation, and more broadly pattern with expressions that contribute to the at-issue content; as such, I take it to represent a distinct phenomenon from the emphatic exclusion as discussed in this paper.



- (23) b. ?? The essay is **not** *just* perfect. ???  
 a. Michael Jordan is **not** the best. True  
 b. ?? Michael Jordan is **not** *simply* the best. ???

### 3.4 EEs are cross-categorial

A final property of EEs is that they are strongly cross-categorial: they can freely occur with expressions drawn from a variety of syntactic categories besides adjectives, including universal quantifiers, quantifying adverbs, superlatives, nouns, and verbs.

- (24) a. *Simply/just* everybody hates us. Quantifier  
 b. This *simply/just* never happens. Quantifying adverb  
 c. Michael Jordan is *simply the best* basketball player ever. Superlative  
 d. You're *simply/just* a genius. NPs  
 e. I *just/simply* love this feeling. VPs

From the perspective of exclusivity, the promiscuous distribution of EEs is not surprising. Assuming that exclusives typically target propositional alternatives, and considering that there is a compositional mechanism in place able to generate such alternatives from smaller constituents, it follows naturally that the target alternatives can be assembled out of elements with different semantic and/or syntactic properties. However, it is important to highlight the cross-categorial nature of EEs for two reasons.

First, it provides further support to the idea that the distribution of EEs is tied to scalar extremeness in a principled way: while encoding meanings of different types, all these expressions share the property of being scalar terms that relate individuals to the endpoint (or the very final segment) of an ordering, highlighting the role of extremeness as a central licensing factor to the felicity of EEs.

Second, it provides strong evidence against a possible line of analysis for EEs, suggested by Morzycki (2012): that EEs might not actually be exclusives at all, but rather an instance of Extreme Degree Modifiers (henceforth, EDMs) – a natural class of degree expressions that indeed specialize in targeting gradable predicates denoting the extreme region of a scale (see §5.5 for further discussion).

- (25) **Extreme Degree Modifiers (EDMs):**  
*Downright, flat-out, full-on, outright, balls-out*

On this analysis, *just* and *simply* in their emphatic use would be seen as essentially accidentally homophonous with ordinary exclusives: their contribution amounts to boosting the threshold encoded as part of the truth-conditions of a gradable predicate – a meaning that is substantially different from the one of excluding alternatives. As a result, this proposal would offer a straightforward account of the intensifying effects and the distribution of *just* and *simply*, all the while avoiding the task of addressing the puzzling relation between emphatic and regular exclusives. However, their cross-categorial nature, combined with some of the properties previously discussed, present a challenge to this proposal. To begin with, many of the categories targeted by EEs do not license degree morphology. Some of them do

not straightforwardly combine with degree words, such as universal quantifiers; others, such as superlatives, have already been saturated by degree morphology.

- (26) a. \**Very/Extremely* everybody hates us. Quantifier  
b. \*This *very/extremely* never happens. Quantifying adverb  
c. \*Michael Jordan is *very/extremely* the best basketball player ever. Superlative

Moreover, we’ve seen that EEs do not contribute to the truth-conditional content of the utterance. This, however, doesn’t apply to degree modifiers, which can be targeted by truth-conditional operators such as negation, and can be directly denied in discourse. In (27), negation only targets the intensifier, while leaving the adjective unaffected. Note that small caps on *very/extremely* indicates focal stress; throughout the rest of the article, I will systematically place focal stress in constructions of this kind to facilitate the intended contrastive reading.<sup>9</sup>

- (27) The essay isn’t VERY/EXTREMELY good, though it is definitely *good*.

Finally, treating EEs as (a kind of) degree modifiers would amount to positing no semantic or pragmatic link between the two versions of *just* and *simply*. Yet, several observations among those discussed in §2 suggest that there nevertheless seems to be a principled connection between EEs and exclusivity. First, we’ve seen that EEs can typically be paraphrased with expressions which appear to have an exclusive flavor of sorts. The same paraphrases are instead not effective for canonical degree modifiers like *very* or *extremely*, whose effect is better described with an expression like “to a high degree”. Second, we’ve seen that not only are emphatic uses of exclusives robustly attested cross-linguistically, but also that several languages consistently allow only for a subset of their exclusive inventory to take on an emphatic function, suggesting that the connection between the category of exclusivity and EEs is grammatically modulated in a systematic way. Taken together, these observations suggest that a novel analysis for EEs should be developed that accounts for their properties while still capturing their status as exclusive operators.

### 3.5 The empirical profile of EEs: the outlook

This section highlighted different dimensions along which the behavior of EEs diverges from that of regular exclusives: their emphatic effect; their restricted availability within the class of exclusive operators; their paraphrases; their lack of truth-conditional effects; and their status as non-at-issue operators. At the same time, EEs are found above and beyond environments that license degree modification, which provides evidence against the idea of treating them as degree words homophonous with exclusives. Taken together, these considerations present a challenge: EEs’ contribution should still be modeled as the one of a genuine exclusive operator; and yet it can hardly be captured through a straightforward application of extant

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<sup>9</sup>This is necessary in that, when embedded under negation, *very* tends to give rise to an enriched interpretation known as *negative strengthening*: if a person is described as “not very tall”, for example, we tend to infer that they are “not tall” in the first place, rather than that they fail to largely exceed the standard for “tall” (see in particular Leffel et al. 2018 for recent discussion of this phenomenon). Focal stress serves the purpose of avoiding this particular reading, and forcing one in which negation specifically targets the intensifier.

templates for exclusivity discussed in §2. To address this problem, in particular, two basic components of EEs’ meaning need to be spelled out. One revolves around the nature of the alternatives and the ordering according to which they are ranked, which cannot be taken to be based on semantic strength in the traditional sense. The other revolves around the nature of the quantificational element encoded by EEs, which doesn’t seem to be amenable to being modeled as targeting the truth-value of the alternatives.

## 4 The proposal: Laying the groundwork

I now turn to outline a novel analysis of EEs as exclusive operators that differ from canonical ones in two respects. First, they operate over *granularity-based* alternatives – alternative descriptions that the speaker could have used to describe the relevant state of affairs at a higher level of detail. Second, they rule out such alternatives not because they are false, but because they are not assertion-worthy – in the sense that they need not be asserted in order for a complete representation of the facts to be provided. It is this core contribution, I argue, that underlies both EE’s restriction to extreme predicates and their emphatic effect.

The current section introduces the crucial ingredients of the proposal: §4.1 sketches out the core idea behind the proposal; §4.2 introduces and defines the notion of granularity-based alternatives; §4.3 discusses the logical relationship between scalar expressions and their granularity-based alternatives; §4.4 highlights extreme predicates as a crucially special case with regards to this property. A proposal for the meaning of EEs is then outlined in §5.

### 4.1 The core idea

Suppose I utter (28) in the following context: I intend to describe the quality of an essay I just graded; I have no intention to deceive the interlocutor; and the lexicon of English affords only three adjectives to accomplish this task: *ok*, *good*, and *perfect*.

(28) The essay is *perfect*.

Let us now consider two slightly different variants of this scenario.

(29) **Scenario 1:** The essay has been executed to perfection. All sections are superbly written; no errors or issues are present.

In this case, (28) is obviously a viable description of the relevant state of affairs: the quality of the essay reaches the threshold of perfection; as such, *perfect* is a fully adequate descriptor to characterize the situation. Let us now consider a slightly different scenario, outlined in (30).

(30) **Scenario 2:**  
The essay in question is extremely well done; it only features a couple of typos. As such, its status can be thought of as approximating perfection very closely.

In this context, the truth conditions of (28) are not fully met: since there is a minor error in the essay, the performance does not reach the threshold of perfection, even though it comes

very close to it. Practically speaking, however, it is possible to conceive of (28) as a *pragmatically admissible* description in a context like Scenario 2: since the discrepancy between the quality of the essay and perfection is considerably narrow, under most circumstances it would not be sufficient to disqualify the description as being false or misleading.

The possibility of using (28) to represent Scenario 2 reflects a broader property of linguistic communication: interlocutors routinely use linguistic expressions in a way that doesn't fully adhere to their truth-conditions – a phenomenon that is known in the literature as *imprecision*, and which has been modeled in different ways across research in semantics and the philosophy of language (see, among others, Pinkal 1995; Lasersohn 1999; Krifka 2002, 2007; Kennedy 2007; Sauerland and Stateva 2011; Cobreros et al. 2012; Burnett 2014; Solt 2014; Klecha 2018; Aparicio 2017). For example, it is normal to describe near-impossible events as “impossible”, or assert that “everyone” instantiates a particular property in the presence of some marginal exception. In fact, it's been suggested that speaking imprecisely comes with a range of benefits that can compensate for the loss in descriptive accuracy, especially when it involves using predicates at the extreme of a scale: it makes for briefer, more succinct descriptions (Krifka 2002, 2007); it allows speakers to imbue their utterance with an additional emotive/affective charge, which could in turn heighten the involvement and attention of the interlocutor (Bergen 2016; Feinmann 2020); and it presents a variety of processing benefits for the listener – e.g., it makes it easier to fixate on the referent of the description (Franke 2012).

When we consider the broader dynamics whereby meanings are interpreted and conveyed, the very possibility of using scalar predicates in a less-than-precise fashion entails a crucial consequence for linguistic communication: the use of unmodified extreme adjectives such as *perfect* opens up a space of uncertainty around the interpretation of the sentence. Specifically, the listener has no way of knowing, on the basis of the speaker's description alone, whether the object in question is squarely located at the end of the scale, as in Scenario 1; or whether it is merely in its vicinity, as in Scenario 2. In other words: because a predicate like *perfect* can be truthfully used in a situation in which the truth-conditions of the predicate are not fully met, assertions like (28) raise the issue as to where exactly the object in question is located with respect to the scalar extreme.

As a matter of fact, this uncertainty often goes under the radar in conversation, as interlocutors can indeed be happy to proceed further in discourse without resolving the issue of whether the object in question reaches the scalar extreme or not: for instance, listeners can live without knowing exactly where a “perfect” essay is located on the quality scale, and speakers, as a consequence, do not feel compelled in investing time and resources to fine-tune their statements. However, the fact that this issue can be harmlessly left aside in many circumstances doesn't mean that it is not present, or that interlocutors are not aware of it. In fact, it is possible to observe a variety of strategies that can be used by conversational partners to eliminate, or at least manage, the uncertainty introduced by the use of scalar terms. For instance, speakers can decide to spontaneously follow up on the description they just uttered with an additional statement that can help the listener zero in on the relevant facts. (31) provides an example: note that in neither case does the continuation appear to entail a retraction of the the first assertion, but rather provides further specification of the facts that are being described.

- (31) a. The essay is *perfect* – and by that I mean absolutely perfect.  
 b. The essay is *perfect* – there are only a couple of typos.

Alternatively, listeners can take the initiative, explicitly asking the speaker to provide further details. This can be observed in the exchange in (32). Again, note that B’s response is not challenging or taking issue with A’s initial description; rather, it can be seen as a request for further details that can guide them in the interpretation of the previous statement.

- (32) a. A: The essay is perfect.  
 B: Wow! Not even a minor imperfection?  
 A: Absolutely perfect!  
 b. A: The essay is perfect.  
 B: Wow! Not even a minor imperfection?  
 A: Well, actually just a couple typos, but really nothing relevant.

In the remainder of the paper, I argue that *just* and *simply* can be seen as yet another strategy for addressing this issue, and thus dissipate the lingering uncertainty about the state of affairs that is being described. They do so by signaling that the predicate used by the speaker already provides a complete characterization of the facts, making further specifications unnecessary – or, according to the specific notion I will develop in the analysis, not *assertion-worthy*.

- (33) The essay is *just* perfect. *Informal characterization*  
 ≈ No further specification is necessary to provide a definitive picture of the facts.

Crucially, as the analysis will make clear, this situation is uniquely distinctive of contexts like Scenario 1: only in such scenarios, in fact, more specific descriptions than the asserted one are either false or superfluous – in the sense that they are already logically entailed by the asserted predicate, and are thus inferrable from it. As a result, the use of an exclusive will signal to the listener that *perfect* is being used in a situation in which the scalar extreme is reached, as opposed to approximated, thus resolving any remaining indeterminacy and engendering the emphatic effect typically observed in connection with EEs.

## 4.2 Granularity-based alternatives

As a first step, I proceed to spell out in greater detail the nature of the alternatives targeted by EEs – that is, what I called “further specifications” in the informal definition provided in (33), and what I will call *granularity-based* alternatives through the remainder of this article. The core idea behind the existence of these alternatives is that scales are continuous objects that can be linguistically segmented at different levels of *granularity*, a proposal originally developed in the literature on measure expressions (Sauerland and Stateva 2011; Krifka 2007; Solt 2014). Someone describing an object’s length, for example, can resort to different degrees of detail, ranging from very fine-grained representations – e.g., *the rope is 49.42 meters long* – to coarser-grained ones – e.g., *the rope is 49 meters long* or, even more, *the rope is 50*

*meters long*.<sup>10</sup> More broadly, I assume that any non-linguistic dimension can be divided up by scalar expressions in non-overlapping sub-intervals of different granularity. On this view, bare lexical items – e.g., adjectives – represent the coarsest level of granularity: they cover a relatively large interval of the scale, failing to specify any further difference between the points contained therein. Modified lexical items represent a more fine-grained level, which gives us a tool to discriminate between subsections of the interval covered by the adjective. Finally, adding further specifications affords the opportunity of reaching even more fine-grained representations, allowing us to make further (and potentially infinite) distinctions between sub-intervals.

Applying this idea to the the example above, *ok*, *good* and *perfect* can be construed as the coarsest options to segment a quality scale, each of which is associated with different, non-overlapping segments. In turn, modified expressions divide up the segment associated with these adjectives in more granular non-overlapping segments; and further modifiers can be added to achieve even more finer-grained levels of granularity. Combined together, these ideas yield the picture represented in Figure 1 below. The line above the picture represents a pre-linguistic continuous dimension, on which the standards for the three adjectives have been marked. The grid below the continuous line represents the different linguistic options that the speaker has to segment the scale in different intervals. Each such interval is modeled as a pair  $\langle \alpha, I \rangle$ , where  $I$  indicates a portion of the scale and  $\alpha$  designates the linguistic form used to cover it. Finally, individuals can be represented as a pair  $\langle x, s \rangle$ , where  $x$  represents the individual proper, and  $s$  represents the point on the continuous dimension to which it is mapped. Figure 1 represents three levels of granularity and two distinct individuals:  $x$ , which is mapped onto the point  $s1$  located at the scalar extreme proper, and  $y$ , which is mapped on the point  $s2$  located in its proximity.<sup>11</sup>

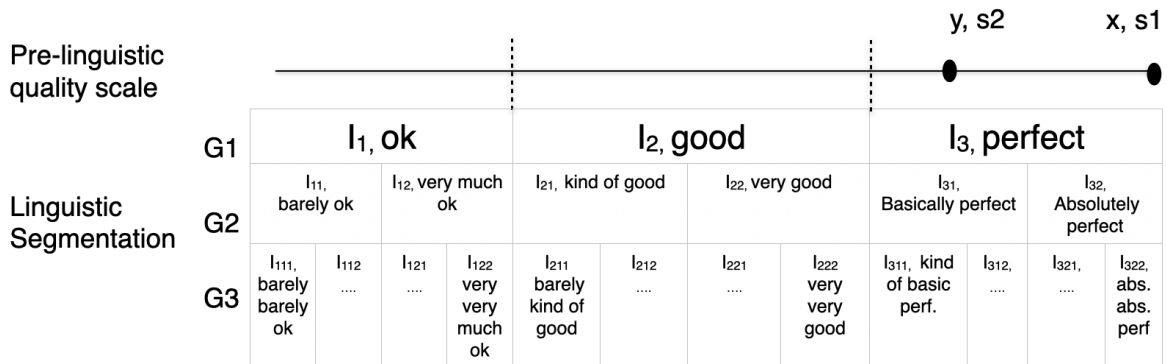


Figure 1: Granularity levels for describing quality

<sup>10</sup>Solt (2014) illustrates this with the metaphor of a ruler: a continuous extent on which a discrete structure is imposed on it via a hierarchical system of markings (inches, half inches, quarter inches, etc.). Such markings make it possible not only to perform measurement, but also, crucially, to report it by using the closest mark to the object at the chosen level of precision.

<sup>11</sup>Note, moreover, that the modifiers used in this example are largely arbitrary – both in terms of the choice of using these particular modifiers and the choice of positing two modifiers as partitioning each subinterval. The same idea could have been implemented with a different set of modifiers, and with a higher number of modifiers within each subinterval.

Each granularity level can thus be represented in terms of a sequence of tuples  $S_g$ , where  $g$  fixes the granularity level.<sup>12</sup>

- (34) Quality scale:
- a.  $S_{Coarse} = \{ \langle I_1, \text{Ok} \rangle, \langle I_2, \text{Good} \rangle, \langle I_3, \text{Perfect} \rangle \}$
  - b.  $S_{Middle} = \{ \langle I_{11}, \text{Barely ok} \rangle, \langle I_{12}, \text{very much ok} \rangle, \langle I_{21}, \text{kind of good} \rangle, \langle I_{22}, \text{very good} \rangle, \langle I_{31}, \text{basically perfect} \rangle, \langle I_{32}, \text{absolutely perfect} \rangle \}$
  - c.  $S_{Fine} = \{ \langle I_{111}, \text{Barely kind of ok} \rangle, \langle I_{112}, \dots \rangle, \langle I_{121}, \dots \rangle, \langle I_{122}, \dots \rangle, \langle I_{211}, \dots \rangle, \langle I_{212}, \dots \rangle, \langle I_{221}, \dots \rangle, \langle I_{222}, \dots \rangle, \langle I_{311}, \dots \rangle, \langle I_{312}, \dots \rangle, \langle I_{321}, \dots \rangle, \langle I_{322}, \text{absolutely absolutely perfect} \rangle \}$

It is important to note that the illustration above – and the general perspective on scalar terms underlying this discussion – rests upon a pragmatically enriched perspective on the meaning of these expressions. In other words, the non-overlapping intervals with which expressions of the same granularity are associated should not be taken to represent the actual logical denotation of these expressions, but rather the different ranges within which it is pragmatically permissible to predicate such expressions of an individual.<sup>13</sup> More specifically, I suggest that the use of a scalar term is pragmatically permissible if the individual that it describes corresponds to a point on the scale that is comprised in the interval with which the predicate is associated.<sup>14</sup>

(35) **Pragmatic Permissibility:**

Let  $\alpha$  be a scalar expression and  $x$  and individual.  $\alpha(x)$  is permissible iff  $s: \langle x, s \rangle \in I: \langle I, \alpha \rangle$

The upshot is that for each expression that represents a pragmatically permissible strategy to describe a point on the scale, there are multiple, *possibly* permissible alternative descriptions, each of which would afford the possibility of providing a more specific description of the facts: I label such alternative descriptions *granularity-based* alternatives (henceforth,  $\text{Alt}_G$ ). More formally, I propose that an expression  $\alpha$  covering interval  $I$  evokes as granularity-based alternatives all those expressions that are associated with an interval  $I'$  such that  $I'$  is a (proper) subinterval of  $I$ .

<sup>12</sup>The idea of defining different granularity levels in terms of sequences takes inspiration from Sauerland and Stateva (2011) and Solt (2014).

<sup>13</sup>From a logical standpoint, instead, the truth-conditions of these expressions are normally modeled in terms of exceeding a standard on the scale (Kennedy and McNally 2005; Kennedy 2007 i.a.); as such, from the perspective of their denotations, these adjectives do cover overlapping segments of the ordering.

<sup>14</sup>I choose to characterize the relation between scalar terms and individuals in terms of permissibility, as opposed to truth, to reflect the idea that scalar intervals are related to the pragmatic norm of use of these terms, as opposed to their logical truth conditions. Throughout the rest of the paper, I take the notion of pragmatic permissibility as essentially corresponding to compliance with Grice's Quality Maxim: uttering a description that is pragmatically permissible amounts to uttering a description that is an adequate linguistic representation of the facts – one that is consistent with the assumption that the speaker is behaving truthfully and cooperatively. What makes permissibility different from truth is the fact that, in the case of permissibility, descriptive adequacy is computed in terms of the relevant scalar interval associated with the expression, as opposed to the logical truth conditions. As will become clear in the next section, maintaining the notion of truth and permissibility distinct is especially important in light of the fact that these two dimensions diverge when it comes to the behavior of extreme predicates, licensing the use of EEs.

- (36) Let  $\alpha$  and  $\beta$  be scalar expressions.  $\alpha \in \text{Alt}_G(\beta)$  iff:  
 $\text{I: } \underline{\text{I} \in \langle \text{I}, \alpha \rangle} \subset \text{I': } \underline{\text{I}' \in \langle \text{I}', \beta \rangle}$

Concerning the scenario in Figure 1 above, for instance, a non-exhaustive set of the granularity alternatives  $\text{Alt}_G(\alpha)$  evoked by each adjective can be represented as follows:

- (37) a.  $\text{Alt}_G(\text{perfect}) = \{ \text{“basically perfect”}, \text{“absolutely perfect”}, \text{“practically basically perfect”}, \text{“absolutely absolutely perfect”}, \dots \}$   
 b.  $\text{Alt}_G(\text{good}) = \{ \text{“somewhat good”}, \text{“very good”}, \text{“barely somewhat good”}, \dots \}$   
 c.  $\text{Alt}_G(\text{ok}) = \{ \text{“Barely ok”}, \text{“very much ok”}, \text{“Barely, narrowly sort of ok”}, \dots \}$

Against this background, granularity-based alternatives can be ranked based on how fine-grained a representation of the facts they provide. More specifically, an expression is at least as fine-grained as another if it is associated with an interval that coincides with or is a subinterval of the interval associated with the other. Since granularity-based alternatives always single out a subinterval of the one associated with their prejacent, it follows that they are by definition always more fine-grained than the prejacent. (38) provides a definition of the relationship, along with several examples.

- (38)  $\geq_{\text{Gran}} := \{ (\alpha, \beta) \text{ I: } \underline{\text{I} \in \langle \text{I}, \alpha \rangle} \subseteq \text{I': } \underline{\text{I}' \in \langle \text{I}', \beta \rangle} \}$   
 a. “Absolutely perfect”  $\geq_{\text{Gran}}$  “Perfect”  
 b. “Basically perfect”  $\geq_{\text{Gran}}$  “Perfect”  
 c. “Absolutely absolutely perfect”  $\geq_{\text{Gran}}$  “Absolutely perfect”

Finally, consistent with the general behavior of alternatives, I assume that proposition-level granularity-based alternatives can be derived by replacing a scalar predicate in a proposition with one of its predicate-level granularity based alternative; and that they can be ranked based on the relative ranking of the predicate-level alternatives. The two steps are formalized below.

- (39) Let  $p[\alpha]$  be a proposition containing a scalar term  $\alpha$ .  
 a. **Generation of proposition-level granularity-based alternatives**  
 If  $\beta \in \text{Alt}(\alpha)$ , then  $q \in \text{Alt}(p)$ , where  $q = p[\beta/\alpha]$ .  
 b. **Ranking of proposition-level granularity-based alternatives**  
 If  $\beta \geq_{\text{Gran}} \alpha$ , then  $q \geq_{\text{Gran}} p$ , where  $q = p[\beta/\alpha]$ .

Applied to our running example, the rule yields the following result.

- (40) The essay is perfect.  
 a.  $\text{Alt}_G(\text{perfect}) = \{ \text{“absolutely perfect”}, \text{“basically perfect”}, \text{“absolutely absolutely perfect”}, \dots \}$   
 b.  $\text{Alt}_G(\text{The essay is } \underline{\text{perfect}}) = \{ \text{“The essay is absolutely perfect”}, \text{“The essay is basically perfect”}, \text{“The essay is absolutely absolutely perfect”}, \dots \}$

As a final note, it is important to observe that a similar architecture, and the concept of granularity-based alternatives more broadly, is general enough to be applied to any scale, regardless of the lexical semantics of the expressions that are involved. Figure 2 below shows



three possible granularity levels for quantification adverbs, a category of expression that has been modeled as involving quantification over situations or events (Lewis 1975; Heim 1990; de Swart 1993 among others), rather than degrees.

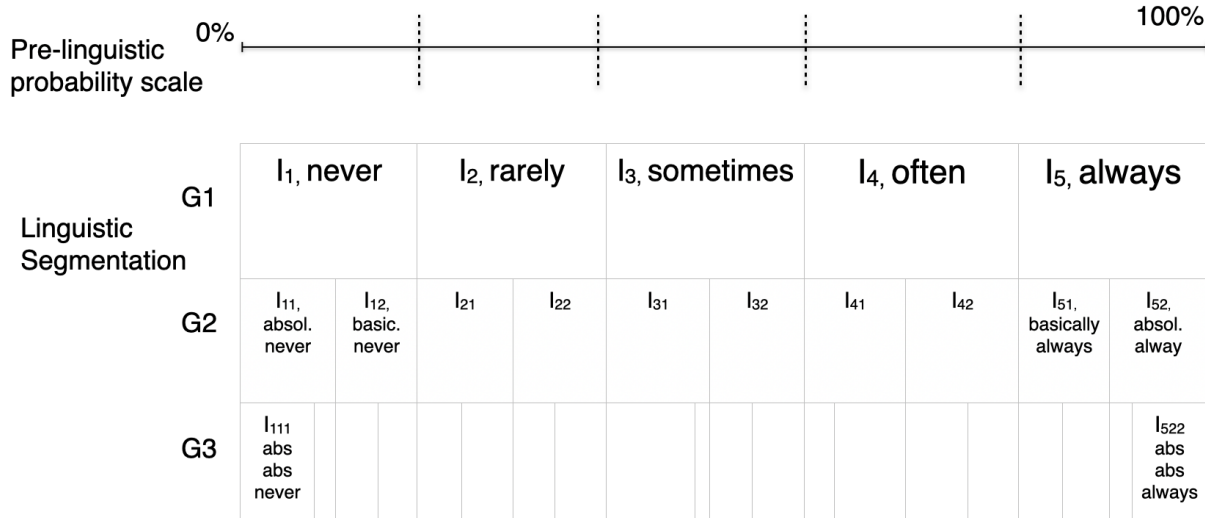


Figure 2: Granularity levels for describing frequency

As the next step to build the proposal, I proceed to consider in greater detail how granularity-based alternatives relate to their prejacent in terms of semantic and pragmatic strength, comparing their behavior to the one of the canonical alternatives discussed in the literature. The discussion will show that the granularity-based alternatives evoked by extreme predicates feature a distinctive strength asymmetry that is not found for those evoked by non-extreme predicates – one that will turn out to be central to deriving the contribution of EEs.

### 4.3 Granularity, strength and entailment

Having introduced the notion granularity-based alternatives and defined a way of ranking them, we can now consider a crucial question for developing the analysis of EEs: what is the strength relationship between a prejacent and its granularity-based alternatives? To begin with, let us first briefly consider the corresponding issue with respect to alternatives most commonly discussed in the literature – i.e., those targeted by scalar implicatures and ordinary exclusives. In the standard cases, alternatives are understood to be *stronger*, or more informative, than the prejacent, in the sense that they are true in a subset of scenarios in which the prejacent is. In such cases, strength is normally intended in terms of an asymmetric entailment relation: each alternative asymmetrically entails the prejacent, while the prejacent doesn't entail any of the alternatives. (41) provides an example, reproduced from §2.

- (41) The essay is ok.
- $\text{Alt}_S(\text{ok}) = \{ \text{“The essay is good”}; \text{“The essay is perfect”} \}$
  - $\llbracket \text{The essay is good} \rrbracket \subseteq \llbracket \text{The essay is ok} \rrbracket$

- c.  $\llbracket \text{The essay is perfect} \rrbracket \subseteq \llbracket \text{The essay is ok} \rrbracket$

In a similar way, a granularity-based alternative can also be construed as more informative than the prejacent: by virtue of being associated with a subinterval of the interval associated with the prejacent, the use of the alternative will be pragmatically permissible only in a subset of scenarios in which the prejacent is pragmatically permissible. For example, while *perfect* is admissible in both Scenario 1 and Scenario 2 above, granularity-based alternatives such as *basically perfect* and *absolutely perfect* are only permissible in Scenario 1 and Scenario 2 respectively. However, contrary to what is the case for canonical alternatives, the notion of strength crucially diverges from the notion of logical entailment. In fact, given a prejacent, it is possible to think of both granularity-based alternatives that logically entail it, as well as granularity-based alternatives that do not. For instance, *absolutely perfect* logically entails *perfect*, as shown by the fact that asserting the latter while negating the former yields a contradiction (as in (42-a)); but *basically perfect*, despite being also part of its granularity-based alternatives, does not entail *perfect*, as shown by the fact that it is possible to assert the former while negating the latter (in (42-b)). The same contrast holds for *sort of good* vs. *very good* (in (43-b)-(43-a)).

- (42) a. # The essay is not *perfect*; it's *absolutely perfect* though.  
 b. The essay is not *perfect*; it's *basically perfect* though.
- (43) a. # The essay is not *good*; it's *very good* though.  
 b. The essay is not *good*; it's *sort of good* though.

The fact that, from a logical perspective, granularity-based alternatives do not homogeneously logically entail their prejacent follows from the very nature of these alternatives. Since they are designed to divide up the interval associated with the prejacent, and since this interval is designed to include both an area of the scale in which the truth-conditions of the prejacent are met and one in which they are not (i.e., in which they are merely approximated), further specifications can proceed in either direction of the scale. They can involve the use of an alternative associated to a subinterval in which the truth-conditions of the prejacent are also met, resulting in entailment from the prejacent to the alternative; or they can involve the use of an alternative linked to a subinterval in which the truth-conditions of the prejacent are not met, resulting in lack entailment from the alternative to the prejacent. Throughout the rest of the article, I relabel granularity-based alternatives that entail the prejacent as *intensifying* the prejacent; and granularity-based alternatives that do not entail the prejacent, by contrast, as *hedging* the prejacent. Specifically:

- (44) **Intensifying vs. hedging alternatives:**  
 For  $p, q$ :  $q \in \text{Alt}_G(p)$ :  
 a.  $q$  intensifies  $p$  iff  $\llbracket q \rrbracket \subseteq \llbracket p \rrbracket$   
 b.  $q$  hedges  $p$  in all other cases

#### 4.4 Introducing the Extreme Predicate Generalization

Against this background, a further, fundamental distinction must be observed: from a logical standpoint, prejacentes containing extreme vs. non-extreme predicates are linked to their

intensifying alternatives in a different way. For non-extreme predicates such as *good*, the entailment relation between an intensifying alternative and the prejacent is always *asymmetric*: the intensifying alternative entails the prejacent, while the prejacent doesn't entail the intensifying alternative. For extreme predicates such as *perfect*, however, the entailment relationship is exceptionally *symmetric*: not only is the prejacent containing an extreme predicate entailed by its intensifying alternatives; it is also the case that the prejacent *entails* its intensifying alternatives. Again, this contrast can be observed by comparing the behavior of intensifying alternatives under negation: while it is possible to negate the alternative and assert the predicate for non-extreme predicates in ((45-a)), the same construction leads to a contradiction with extreme predicates ((46-a)), where the only possible reading is one in which *perfect* is interpreted imprecisely – and hence as *not* adhering to its truth conditions.

- (45) Non-extreme predicates: **asymmetric entailment**
- |    |   |                           |
|----|---|---------------------------|
| a. | The essay is <i>good</i> , though it's not VERY good. | Pred. $\not\subseteq$ Alt |
| b. | # The essay is not good, though it's VERY good.       | Alt $\subseteq$ Pred.     |
- (46) Extreme predicates: **symmetric entailment**
- |    |   |                       |
|----|---|-----------------------|
| a. | # The essay is <i>perfect</i> , though not ABSOLUTELY perfect.      | Pred. $\subseteq$ Alt |
| b. | # The essay is not <i>perfect</i> , though it's ABSOLUTELY perfect. | Alt $\subseteq$ Pred. |

Notably, this asymmetry is not an idiosyncrasy of *perfect*; it can in fact be observed with predicates located at the end of a scale – and, crucially, with all predicates that license emphatic uses of *just* and *simply*. Below I offer examples from q-adverbs, modals and superlatives: again, the only reading in which these constructions would not yield a contradiction is one in which the asserted predicate is interpreted pragmatically, as opposed to logically – that is, in a way that doesn't fully adhere to its truth-conditions.

- (47)
- |    |  |  |
|----|--|--|
| a. | #This thing <i>always</i> happens, though not ABSOLUTELY always.                                     |  |
| b. | #Michael Jordan is <i>the best</i> basketball player ever, though not the VERY BEST.                 |  |
| c. | #Implementing gun control in the US is <i>impossible</i> , though not ABSOLUTELY <i>impossible</i> . |  |

Note that, for these categories as well, non-extreme predicates do not feature this behavior: they can be asserted without contradiction while the intensifying alternatives is being negated.

- (48)
- |    |   |  |
|----|---|--|
| a. | This thing happens <i>often</i> , though not VERY often.                          |  |
| b. | Implementing gun control in the US is <i>hard</i> , though not VERY <i>hard</i> . |  |

I recast the special behavior of the intensifying alternatives of extreme predicates in terms of the following **Extreme Predicates Generalization**, henceforth abbreviated as **EPG**: given an extreme predicate, that is, a predicate that denotes a scalar endpoint, every granularity-based alternative that logically entails the predicate is also logically entailed by the predicate.

- (49) Extreme Predicates Generalization:  
 Let  $p$  a proposition containing an extreme predicate:  
 $\forall q[q \in \text{Alt}_G(p) \wedge \llbracket q \rrbracket \subseteq \llbracket p \rrbracket \rightarrow \llbracket p \rrbracket \subseteq \llbracket q \rrbracket$

This generalization follows from the fact that extreme predicates, in virtue of denoting scalar extremes, are, from a logical standpoint, the strongest expressions available on the scale. This means that other expression relating individuals to the same scale – including the granularity-based alternatives evoked by the predicate – can at most be as logically strong as extreme predicates, but not logically stronger.

## 4.5 Interim summary

In this section, I’ve laid out the notion of granularity-based alternatives – descriptions that the speaker could use to present a more detailed characterization of the relevant facts. Specifically, I argued the following: (i) each scalar term evokes multiple more fine-grained and potentially permissible alternatives; (ii) such alternatives are more informative than the pre-jacent in the sense that they are pragmatically permissible in a subset of scenarios in which the pre-jacent is; (iii) while in general granularity-based alternatives can either logically entail (i.e., intensify) or not entail (i.e., hedge) the pre-jacent, the alternatives evoked by extreme predicates form a natural class in the sense that they never asymmetrically entail the predicate, not even when they are intensifying it. With these basic ingredients in place, it is now possible to return to the puzzle posed by EEs and propose an account of their meaning.

## 5 The proposal: Assembling the pieces

Let us return to the contrast between Scenario 1 and Scenario 2, which served as the starting point the informal characterization of EEs suggested in §4.1. The two scenarios are repeated below.

(50) The essay is *perfect*.

a. **Scenario 1:**

The essay is executed to perfection. All parts are superbly written; no errors or issues are present.

b. **Scenario 2:**

The essay in question is extremely well done; it only features a couple of typos. As such, it can be thought of as approximating perfection very closely.

In §4.1, I suggested the following: a description such as (50) can be used – i.e., it is pragmatically permissible – in each of these scenarios; as a result, the assertion of (50) creates a space of uncertainty as to where exactly the object being described is mapped on the relevant scale – i.e., at the extreme, vs. in its proximity. In the remainder of this section, I outline an analysis of EEs as devices that dissipate this uncertainty by signaling that the scenario being described is one in which the scalar extreme is reached – i.e., Scenario 1. The analysis proceeds into two main steps. First, building on Roberts (1996/2012) discourse framework, I ground the uncertainty introduced by asserting propositions containing scalar predicates in the fact that such propositions normally provide only a *partial answer* to the Question Under Discussion – i.e., one that doesn’t afford the possibility of assessing the permissibility of more fine-grained possible answers. Second, I argue that EEs signal that, in the context of utterance, none of the granularity-based alternatives evoked by the predicate is *assertion-worthy*

– in the specific sense that permissible granularity-based alternatives need not be introduced via further discourse moves, since they can be computed on the basis of the prejacent alone. Since this contribution is uniquely felicitous in a scenario in which the the individual being described is located at the extreme of the scale – as opposed to its proximity – the use of the EE leads to the inference that pragmatically admissible alternatives in the context are all those that intensify the prejacent, deriving EEs’ distinctive emphatic effect and the rest of their empirical properties.

The section is organized as follows: in §5.1 I introduce the parts of Roberts (1996/2012)’s discourse model that are going to be central to the analysis of the exclusives, and in particular the notions of *complete* vs. *partial* answer; in §5.2 I apply this system to capture the uncertainty associated with the use of scalar terms in discourse; in §5.3 I introduce the notion of assertion-worthiness to characterize the difference between the permissible granularity-based alternatives in scenarios in which a scalar extreme is reached vs. merely approximated; in §5.4 I provide a denotation for EEs; in §5.5 I argue that this denotation also applies to non-logically extreme predicates such as *amazing*; in §5.6 I discuss how the proposed account helps us solve the puzzle raised by EEs.

## 5.1 The framework: QUD, complete answers, partial answers

Let us begin by spelling out the basic discourse mechanisms whereby interlocutors use language to describe, inquire and learn about reality. In what follows, I largely adopt the discourse framework developed by Roberts (1996/2012)<sup>15</sup>, in which conversation is seen as a game whose ultimate goal is to allow the interlocutors to zero in on the state of the current world. This game, specifically, can be advanced via two basic moves: *questions*, on the one hand, guide common inquiry by proffering a set of alternative propositions; *assertions*, on the other, choose among the alternatives proffered by questions, and in so doing allow us to discard alternatives that should no longer be considered as candidates for the actual world. In this perspective, the ultimate goal of the game can be reframed as the goal to answer the overarching question “What is the way things are?”, also known as *the Big Question* (Stalnaker 1978): more specific questions, as well as the assertions used to resolve them, can be seen as substrategies that interlocutors can adopt to make the task of answering the Big Question more manageable. Such questions are represented in discourse as a *stack* of Questions under Discussion (abbreviated as QUD); the question atop of the stack represents the most immediate question in discourse that the interlocutors are attempting to resolve – that is, the question that is maximally salient at a particular moment of the conversation. Following Coppock and Beaver (2014) I will refer to such a question as the *current* Question under Discussion, abbreviated as CQ (see also §5.4).

Before seeing how this system can be applied to capture the behavior of granularity-based alternatives in conversation, let us briefly consider the mechanism whereby a simple question-answer pair can help interlocutors further the goals of the conversational game, building on Roberts (1996/2012). In particular, let us consider a moment in a conversation in which the relevant domain of individuals is  $D = \{\text{Mary, Alice, Grace}\}$  and the QUD is “Who did Mary invite?”

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<sup>15</sup>This model, in turn, largely builds on insights from Stalnaker (1978).

I follow Roberts (1996/2012) in assuming a Hamblin style semantics for questions, which are taken to denote a set of alternative propositions called the *q-alt(ernative)* set; and in assuming that such propositions are obtained by permitting the variables of abstraction to vary freely over entities of the appropriate sort in the model. The result is as follows.

- (51)  $Q = \text{Who did Mary invite?}$   
 $q\text{-alt}(Q) = \{\text{Mary invited Alice, Mary invited Grace}\}$

In turn, the *q-alt* allows us to compute the space of possible answers to the question. Two kinds of answers are possible.

- (52) A **partial** answer to a question is a proposition which contextually entails the evaluation – either true or false – of at least one element of  $q\text{-alt}(Q)$ :

Partial answers to (51):

- a. Mary invited Alice
- b. Mary invited Grace
- c. Mary did not invite Alice
- d. Mary did not invite Grace

- (53) A **complete** answer to a question is a proposition which contextually entails the evaluation – either true or false – of each element of  $q\text{-alt}(Q)$ :

Complete answers to (51):

- a. Mary invited Alice and Mary invited Grace
- b. Mary invited Alice and Mary did not invite Grace
- c. Mary did not invite Alice and invited Grace.
- d. Mary did not invite Alice and did not invite Grace.

On this view, following the idea that pursuing the Big Question entails resolving each sub-question as soon as possible, and following the general maxims of Relevance and Quantity, I assume that a complete answer is always preferable to a partial one (see also Roberts 1996/2012: 6) – that is, that interlocutors addressing a question face the pressure to provide a complete answer as soon as they can; and that, if they are not in the position or doing so, they should nevertheless strive to provide as complete an answer as possible. As will become clear shortly, it is precisely the pressure to provide a complete answer, combined with the fact that propositions containing scalar predicates are systematically amenable to being interpreted as partial ones, that motivates the use of emphatic exclusives in the conversational game. As the next step to appreciate this contribution, I move to discuss how granularity-based alternatives fit into this system, especially in terms of their relationship to the QUD and the broader conversational game.

## 5.2 Granularity-based alternatives and answerhood

How can propositions containing scalar predicates be modeled within this framework? In general, I assume that every proposition of the form “[Obj] is X”, where X is a scalar predicate and [Obj] is object that the predicate is relating to a scale, addresses a question of the form “How is X?”, with X ranging over properties from individuals to truth values. For example,

I assume that the proposition asserted in (54) addresses the QUD “How is the essay?”, and that, following Roberts, this question generates q-alternatives of the form “The essay is X”.<sup>16</sup>

(54) The essay is *perfect*.

Consistent with the assumption made in §4.1 that there are three contextually salient property-denoting expressions of English that can be used to fill this variable – *ok*, *good*, and *perfect* – a first stab at capturing the space of possible answers induced by this question could be as follows. When a speaker asserts (54), the assertion can be construed as a proffer to eliminate *good* and *ok* from contention, leaving *perfect* as the only option under consideration.

(55) a. Q: How is the essay?  
 b.  $q\text{-alt}(Q) = \{\text{The E is perfect, The E is good, The E is ok}\}$   
 c. Proposed effect of asserting “The essay is perfect”:  
 $q\text{-alt}(Q) = \{\text{The E is perfect, ~~The E is good, the E is ok~~\}$

Yet, this cannot be empirically adequate. Following this partition, we would expect statements such as (54) to provide a fully conclusive characterization of the state of the essay – that is, to provide a complete answer to the QUD. Yet, this would crucially fail to capture the uncertainty that the use of such terms raise with respect to where the individual that they are describing stands with respect to the scale. In particular, since (54) is pragmatically permissible in non-trivially different scenarios, a predicate like *perfect* doesn’t automatically allow us to discriminate between between scenarios in which propositions such as “The essay is *absolutely* perfect” vs. “The essay is *basically* perfect” are pragmatically permissible. To express these distinctions, we need to bring granularity-based alternatives back into the picture – that is, we must allow for these propositions to be part of the set of possible answers to the question, so that they can serve as tools for the interlocutors to advance towards solving the QUD. I implement this idea by positing that, if a variable X can be filled by a scalar term to generate the q-alt set of a question, the same variable can also be filled by the

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<sup>16</sup>While I will be working through the bulk of the analysis by relying on examples such as (54), it is important to note that, more broadly, I assume that propositions containing scalar predicates associate with a question with structure “[Obj] is X” regardless of the form in which this proposition is instantiated in discourse, and regardless of whether this question coincides with the main issue that the assertion is addressing. Consider the following example, in which two scalar terms are used: *perfect* and *impeccable*.

(i) John turned in a *perfect* essay with *impeccable* handwriting.

I treat an assertion of this sort as containing, among others, two distinct propositions – one for each scalar term, and each associating with a dedicated QUD: (i) “The essay is *perfect*”, associated with “How is the essay?”; (ii) “The handwriting is *impeccable*”, associated with “How is the handwriting”. Note that the fact that these questions are available doesn’t mean that they coincide with the main question that the assertion is addressing – i.e. the main point of the utterance (e.g., “What did John do?”; see Tonhauser et al. 2013). However, they can be pursued as inquisitive sub-strategies to advance towards solving this question, and they can be elaborated on in subsequent moves.

(ii) John turned in a *perfect* essay with *impeccable* handwriting – and I mean an *absolutely* *perfect* essay.

(iii) John turned in a *perfect* essay with *impeccable* handwriting – and I mean *absolutely* *impeccable* handwriting.

granularity-based alternatives of the scalar term: just like  $X$  in “The essay is  $x$ ” can be filled by *ok*, *good* and *perfect*, it can also be filled by *sort of ok*, *very good*, *absolutely perfect* etc.. Accordingly, granularity-based alternatives can be modeled as inducing further partitions within the worlds in which the prejacent is pragmatically admissible – that is, as subcells of the cells covered by their prejacent. Specifically, each cell associated with a proposition containing a predicate at a coarse granularity level can be construed as being partitioned in further subcells by the propositions containing the corresponding granularity-based alternatives at the medium and fine level. Against this background, the effect of an assertion such as (54) can be broken down into two parts: it proposes to discard all the cells in the partition that are not compatible with the chosen one – these include the alternative propositions at the same level of granularity and the relative granularity-based alternatives; and it leaves open the cells corresponding to the granularity-based alternatives of the asserted proposition. Discarded cells are represented with gray background and strikethrough; cells left open are preceded by a question mark.

	$G_{Coarse}$	$G_{Medium}$	$G_{Fine}$
The E is...	perfect	? absolutely perfect	? absolutely absolutely perfect
			? kind of absolutely perfect
		? basically perfect	? very much basically perfect
			? kind of basically perfect
	good	very good	<del>very very good</del>
		kind of good	<del>basically very good</del>
			<del>very much kind of good</del>
	ok	very much ok	<del>barely kind of good</del>
			<del>very very much ok</del>
		kind of ok	<del>basically very much ok</del>
		<del>pretty much kind of ok</del>	
		<del>barely kind of ok</del>	

Table 1: Proposed effect of asserting “The essay is perfect” for QUD = “How is the essay?”

Building on this system, we are now in the position of characterizing the uncertainty introduced by predicates like *perfect* (see §4.1) in a more precise way: the assertion of a proposition containing a scalar predicate of this sort only provides a *partial* answer to the question it addresses – one that eliminates most of the cells in the QUD partition, but nevertheless leaves some open. This, in turn, suggests that asserting a proposition containing a scalar term appears to have a two-fold effect from the perspective of the conversational game. On the one hand, it contributes to answering the QUD that it addresses – and thus allow interlocutors to advance in the process of answering the Big Question. On the other hand, it raises the issue of which propositions – among those left open – would instead be able to represent a complete, definitive answer to the QUD.

### 5.3 Extreme predicates, answerhood, and assertion-worthiness

Let us now now apply this framework to recast the contrast between Scenario 1 and Scenario 2. While in both cases the proposition “The essay is perfect” is permissible – the individual



being described falls within the interval associated with *perfect*, as defined in (35) – the permissible granularity-based alternatives that can be used to refine the description will be crucially different across the two scenarios: *absolutely perfect* and *absolutely absolutely perfect* would be the permissible alternatives for Scenario 1; and *basically perfect* and *kind of basically perfect* those for Scenario 2. I use red to mark the description of choice at each level of granularity for Scenario 1, and blue for marking the alternatives of choices in Scenario 2.

	$G_{Coarse}$	$G_{Medium}$	$G_{Fine}$
The E is...	perfect	<del>absolutely perfect</del>	<del>absolutely absolutely perfect</del>
			kind of absolutely perfect
		<del>basically perfect</del>	very much basically perfect
			kind of basically perfect
	good	<del>very good</del>	<del>very very good</del>
		<del>kind of good</del>	<del>basically very good</del>
		<del>very much ok</del>	<del>very much kind of good</del>
	ok	<del>very much ok</del>	<del>barely kind of good</del>
		<del>kind of ok</del>	<del>very very much ok</del>
			<del>basically very much ok</del>
		<del>pretty much kind of ok</del>	
		<del>barely kind of ok</del>	

Table 2: Permissible alternatives for **Scenario 1** (red) vs. **Scenario 2** (blue)

Note, however, that the difference between these two scenarios runs deeper than the fact that each context warrants the use of different granularity-based alternatives to solve the QUD. Specifically, the alternatives of choice in Scenario 1 share a property that is not shared by the alternatives in Scenario 2 – and more broadly all scenarios in which the individual being described is not located at the extreme: they are *not* logically independent of the prejacent; in fact, they are logically entailed by it. This property directly stems from the EPG discussed in §4.4, according to which predicates denoting a scalar endpoint logically entail all their intensifying alternatives. Since intensifying alternatives are indeed the alternatives of choice to refine the description in scenarios in which the scalar extreme is reached, it follows that, in contexts of this type, the prejacent entails all the more fine-grained alternatives that would be permissible in the context.

This special property of extreme scenarios, in turn, crucially reflects on the strategies whereby the interlocutors navigate the conversational game. In Scenario 2, because the alternatives of choice bear no logical relation to what has been asserted before, evaluating all the possible answers to the QUD is only possible if the speaker engages in further discourse moves to communicate what more fine-grained alternatives are permissible. By contrast, in Scenario 1, an alternative path – a *shortcut*, one might say – is also available. Since the permissible granularity-based alternatives *do* bear a logical relationship to the asserted prejacent, they are, in principle, inferrable from what has already been asserted. All is necessary is that the speaker makes it clear to the listener that such an inferential path is indeed available in the context.

To characterize the contrast between the status of the permissible alternatives in Scenario 1 vs 2, I introduce the notion of *assertion-worthiness*. Informally, a proposition is assertion-

worthy if the move of proffering the proposition with a dedicated assertion is justified in order to solve the QUD and advance in the conversational game; a proposition is not assertion-worthy, by contrast, if there is a path to solve the QUD without asserting the proposition. More specifically, building on the discussion in the previous section, I posit that two conditions need to simultaneously hold for a proposition  $q$  to be assertion-worthy. First, the proposition must be pragmatically permissible; if it weren't, it would be obviously at odds with the goal of the conversational game to zero in on the state of the actual world. Second, the proposition must be logically independent from what has been asserted in discourse. If this weren't the case, there would be an inferential path in place that would make it possible for the listener to infer the proposition without a dedicated discourse move. I represent these two conditions as follows. Concerning the first one, I abbreviate the permissibility of  $q$  as  $\text{PERM}(q)$ , defined as in (35). Concerning the second one, I propose that, given an information state  $S$ , there can be no proposition  $p$  addressing the same QUD as  $q$  such that  $p$  has already been asserted in previous discourse and  $p$  logically entails  $q$ . Following Roberts (1996/2012), I represent assertion moves as  $a$ , and the move of asserting  $p$  as  $a(p)$ ; I likewise follow Roberts (1996/2012) in assuming that the set of assertions made in prior discourse is part of the representation of the information state, labeled as  $A_S$  below. On this view, an assertion that has been made in previous discourse can be taken to be part of  $A_S$ .

$$(56) \quad \text{ASSERTION-WORTHY}_S(q) = 1 \text{ iff}$$

- $\text{PERM}(q)$
- $\nexists p[q, p \in \text{QUD}]$ :
  - $a(p) \in A_S$
  - $\llbracket p \rrbracket \subseteq \llbracket q \rrbracket$

Applying the notion of assertion-worthiness to the contrast between Scenario 1 vs. 2 yields the following result: permissible alternatives to “The essay is perfect” in Scenario 2 are assertion-worthy;<sup>17</sup> the permissible alternatives in Scenario 1, however, are crucially *not*, since they are already logically entailed by an assertion made in previous discourse.<sup>18</sup>

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<sup>17</sup>Because the notion of assertion-worthiness is defined with respect to the discourse state, it is not the case that expressions associated with an interval including the extreme of the scale – e.g., *absolutely perfect* or *absolutely absolutely perfect* – will always turn out to be non-assertion-worthy. For instance, if a speaker utters (i) right away in a context such as Scenario 1 – e.g., without first uttering “The essay is perfect” – the uttered proposition will indeed qualify as assertion-worthy, since there is it is not entailed by any previously asserted proposition.

(i) The essay is *absolutely perfect*.

<sup>18</sup>This does not mean that they are unassertable tout court, nor that they are conversationally useless in an absolute sense: as discussed in §4.3, both *absolutely perfect* and *absolutely absolutely perfect* are indeed more informative than *perfect* from a pragmatic standpoint, in that they are permissible only in a subset of the contexts in which the latter is. As a result, their assertion would still allow the interlocutors to advance in the conversational games and eliminate competing possibilities from the QUD. However, because such alternatives are not logically independent from what has been asserted before, they are not worth the effort of being proffered with a dedicated discourse move: they can also be computed from the proposition that has been proffered already by the speaker, thus affording the possibility of solving the QUD without further discourse moves.

Looking at the broader picture, the upshot is that the distinction between assertion-worthy and non-assertion-worthy propositions is one that matters for the conversational game. Considering that interlocutors are under pressure to find a complete answer to the QUD as early as possible, it is indeed highly beneficial to signal that, in a particular scenario, there are no assertion-worthy alternatives left. It would essentially indicate to the listener the availability of a shortcut to compute a complete to the QUD with minimal effort – and thus settle any lingering uncertainty about the status of the relevant facts. In the final part of the analysis, I argue that this contribution is precisely the one afforded by EEs: these modifiers convey that there are no assertion-worthy alternatives left in the answer space, signaling that the prejacent alone is sufficient to compute a complete answer to the QUD.

## 5.4 Modeling emphatic exclusives

Let us consider again Coppock and Beaver (2014)’s template (see §2.1), where the contribution of an exclusive requires two crucial ingredients for an information state  $S$ :

- A C(urrent) Q(uestion), representing the most salient question within the QUD, and modeled as the set of (at least partial) possible answers to the CQ;
- A contextually determined strength ranking over the alternatives  $\geq_S$  modeled as a binary relation over the answers  $\geq_S = \{ \langle x, y \rangle, \dots \}$ , where  $p \geq_S q$  iff  $\langle p, q \rangle \in \geq_S$

Let us now consider how these two components can be used to characterize the context in which (57) is uttered.

(57) The essay is *perfect*.

As far as the CQ is concerned, we’ve seen in §5.2 that it can be modeled as “How is the essay?”, with possible answers of the form “The essay is  $X$ ”. Considering that asserting (57) rules out all the alternatives at the same granularity level (e.g., “good”, “ok”), what remains in the CQ are the granularity based alternatives to what has been asserted. To keep things manageable, I only include the granularity-based alternatives for the mid-grained level in the current set: *absolutely perfect* and *basically perfect*. Considering how these two alternatives are impacted by EEs will indeed be sufficient to show how the analysis works. As far as the ordering over these answers is concerned, we’ve seen in §4.2 that such alternatives can be ranked in terms of the size of the interval that they single out (see definition in (38)). If we take  $\geq_S$  to correspond to such a granularity-based ordering, the parameters in  $S$  can be represented as follows.

(58) The essay is perfect.

- a. CQ: {**p** = E is perfect, **ap** = E is absolutely perfect; **bp** = E is basically perfect}
- b.  $\geq_S = \{ \langle ap, p \rangle, \langle bp, p \rangle, \langle ap, ap \rangle, \langle bp, bp \rangle, \langle p, p \rangle \}$

As can be seen, this setup captures the uncertainty introduced by propositions containing scalar predicates: even after eliminating all the possible answers that can be evaluated by *perfect* – i.e., *good* and *ok* – (at least) two non-trivially different answers remain in contention,

both of which are compatible with the prejacent being permissible, and both of which are ranked higher than the prejacent on the granularity ordering.

Let us now consider how EE operate on such alternatives. As can be recalled, Coppock and Beaver (2014)’s basic exclusive function  $\text{EXC}_S$  consists of two functions: a presupposition that there is a true possible answer to the CQ that is as strong as the prejacent – which essentially ensures that the prejacent is true; and an assertion that every true possible answer must be ranked lower than the prejacent – that is, that no possible answer ranked higher than the prejacent is true. The two sub-functions are represented as  $\text{MAX}(p)$  and  $\text{MIN}(p)$  respectively.

(59) Coppock and Beaver (2014): basic exclusive template

- a.  $\llbracket \text{EXC} \rrbracket_S = \lambda p \lambda w: \text{MIN}_S(p)(w). \text{MAX}_S(p)(w)$
- b.  $\text{MAX}_S(p) = \lambda w. \forall q \in \text{CQ}_S [q(w) \rightarrow p \geq_S q]$
- c.  $\text{MIN}_S(p) = \lambda w. \exists q \in \text{CQ}_S [q(w) \wedge q \geq_S p]$

As it stands, and again taking  $\geq_S$  to correspond to granularity, all the necessary ingredients are in place to compositionally apply this function to (58). Yet, this would not yield the intended meaning of emphatic *just* and *simply*: its contribution would amount to asserting that *perfect* is a true descriptor for the essay, but that both *basically* nor *absolutely* perfect are false. From a compositional perspective, this would be, in principle, an admissible outcome: however, it would lead us to rule out the truthfulness of an intensifying alternative of the prejacent such as *absolutely perfect*, generating a conflict with the intuition that the use of *just* and *simply* requires that intensifying alternatives also hold. The issue would still persist even if truth was replaced with the more flexible notion of pragmatic permissibility, as defined in (35): the outcome would still be one in which the pragmatic permissibility of *absolutely perfect* wouldn’t hold, and thus the contribution of EEs isn’t adequately captured.

(60)  $p =$  The essay is *just/simply* perfect. To be rejected

- $\text{MAX}_S(p) = \lambda w. \forall q \in \text{CQ}_S [q(w) \rightarrow p \geq_S q]$
- $\text{MIN}_S(p) = \lambda w. \exists q \in \text{CQ}_S [q(w) \wedge q \geq_S p]$
- True propositions in CQ:  $\{\mathbf{p} = \text{E is perf.}\}$
- False propositions in CQ:  $\{\mathbf{ap} = \text{E is abs. perfect}; \mathbf{bp} = \text{E is basic. perfect.}\}$

What is needed is a more flexible quantificational component of the exclusive: one that rules out higher-ranked alternatives not because they are false, but because, more broadly, they are not worthy of being pursued in discourse – in the specific sense that they are not assertion-worthy. Once we plug this function into the basic template of exclusivity in lieu of negation, we obtain the denotation in (61), where  $\text{MIN}_S^{EE}$  component presupposes that there exists a proposition as fine-grained as the prejacent that is assertion-worthy; and  $\text{MAX}_S^{EE}$  asserts that no proposition more fine-grained than the prejacent is assertion-worthy. Following Coppock and Beaver (2014)’s formal convention, the column  $:$  introduces the presupposed material.

- (61)
- a.  $\llbracket \text{EE} \rrbracket_S = \lambda p: \text{MIN}_S^{EE}(p). \text{MAX}_S^{EE}(p)$
  - b.  $\text{MAX}_S^{EE} = \lambda p. \forall q \in \text{CQ}_S [\text{A.WORTHY}(q) \rightarrow p \geq_S q]$
  - c.  $\text{MIN}_S^{EE} = \lambda p. \exists q \in \text{CQ}_S [\text{A.WORTHY}(q) \wedge q \geq_S p]$

Applied to our working example, the function would yield the following, where “E is perf.” is an abbreviation for “The essay is perfect”: it is presupposed that there is a proposition

as strong (i.e., as fine-grained) as “The essay is perfect” that is assertion-worthy; and it is asserted that no stronger (i.e., more fine-grained) proposition than “The essay is perfect” is assertion-worthy in S.

$$(62) \quad \begin{aligned} \text{a.} \quad & \llbracket \text{EE} \rrbracket_S(E \text{ is perf}) = : \text{MIN}_S^{EE}(E \text{ is perf}). \text{MAX}_S^{EE}(E \text{ is perf}) \\ \text{b.} \quad & \text{MAX}_S^{EE}(E \text{ is perf}) = \forall q \in \text{CQ}_S [\text{AW}(q) \rightarrow E \text{ is perf} \geq_S q] \\ \text{c.} \quad & \text{MIN}_S^{EE}(E \text{ is perf}) = \exists q \in \text{CQ}_S [\text{AW}(q) \wedge q \geq_S E \text{ is perf}] \end{aligned}$$

The resulting effect on the CQ is represented as follows, where strikethrough indicates non-assertion-worthy alternatives.<sup>19</sup>

$$(63) \quad \begin{aligned} \text{a.} \quad & \text{CQ: } \{\mathbf{p} = \text{E is perfect}, \mathbf{ap} = \text{E is absolutely perfect}; \mathbf{bp} = \text{E is basically perfect}\} \\ \text{b.} \quad & \geq_S = \{ \langle ap, p \rangle, \langle bp, p \rangle, \langle ap, ap \rangle, \langle bp, bp \rangle, \langle p, p \rangle \} \\ \text{c.} \quad & \text{A-Worthy prop in CQ: } \{\text{E is perf.}\} \\ \text{d.} \quad & \text{Non-A-Worthy prop in CQ: } \{\text{E is abs. perfect}; \text{E is basic. perfect.}\} \end{aligned}$$

It is now possible to appreciate why this contribution is only felicitous in a context in which the individual being described reaches the scalar extreme – e.g., such as Scenario 1. In this situation, and crucially *only* in this situation, all granularity-based alternatives fail to meet the criterion for assertion-worthiness: *basically perfect* or other hedging alternatives are not pragmatically permissible, since the essay fails to fall into the relative scalar interval they cover; and *absolutely perfect* and other intensifying alternatives (e.g., *absolutely absolutely perfect*) are permissible, but not logically independent of the prejacent. By contrast, in a scenario in which the extreme is merely approximated – and, more broadly, in any scenario in which the permissible alternatives are not entailed by the prejacent – the use of an EE cannot be felicitous. In this particular context, *absolutely perfect* and other intensifying alternatives would be impermissible, and thus not assertion-worthy; however, *basically perfect* and the other permissible alternatives at higher granularity levels would be logically independent from the prejacent, and thus qualify as assertion-worthy, in conflict with the contribution

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<sup>19</sup>Building on the idea that each proposition containing an object [Obj] and scalar term X associates with the question “[Obj] is X?” (see footnote 16), this denotation can also be used to capture the use of exclusives in assertions containing multiple scalar terms, such as (i).

- (i) John turned in a perfect essay with impeccable handwriting.

Since each proposition containing a scalar term is associated with its own question, it is predicted that an EE can associate with each of these questions – and possibly with both.

- (ii) John turned in a simply perfect essay with impeccable handwriting.

- (iii) John turned in a perfect essay with simply impeccable handwriting.

- (iv) John turned in a simply perfect essay with simply impeccable handwriting.

The interpretive differences between these three assertions are that granularity-based alternatives remain open about the essay and the handwriting respectively in the first two respectively – the handwriting could be basically or absolutely impeccable in (ii); and the essay could be basically or absolutely perfect in (iii). No granularity-based alternatives remain open in (iv). I thank an anonymous reviewer for inviting me to clarify this issue.

of the exclusive. The contrast is summarized in Table 3, where the double horizontal line separates the prejacent from its alternatives.

Proposition	Scenario 1: extreme reached			Scenario 2: extreme approx.		
	Perm	L-Ind	A-W	Perm	L-Ind	A-W
The E is perfect	✓	✓	✓	✓	✓	✓
The E is absolutely perfect	✓	X	X	X	✓	X
The E is basically perfect	X	✓	X	✓	✓	✓
The E is abs. abs. perf.	✓	X	X	X	✓	X
The E is pract. abs. perf.	X	✓	X	X	✓	X
The E is very m. bas. perf.	X	✓	X	X	✓	X
The E is kind of bas. perf.	X	✓	X	✓	✓	✓

Table 3: Assertion-worthiness across contexts. Abbreviations: Perm = pragmatic permissibility; L-Ind = logically independent; A-W = assertion-worthy

As the table suggests, the contrast in assertion-worthiness between Scenario 1 and 2, and ultimately the licensing of EEs, is grounded in the fact that extreme predicates are subject to the EPG discussed in §4.4: it is precisely the fact that the intensifying alternatives to these predicates – i.e., the permissible ones in Scenario 1 – are entailed by the prejacent that makes them not logically independent – and ultimately not worthy of assertion. Before seeing how this denotation allows us to capture all the properties of EEs, however, it is important to take into examination an environment in which EEs are licensed, and which appears to present a counterexample to the analysis presented here.<sup>20</sup>

## 5.5 *Non-logically* extreme predicates also conform to the EPG

We’ve seen that EEs are found not only with predicates that denote the logical extreme of a scale, but also with a special class of gradable predicates known as *extreme adjectives* (Morzycki 2012; see also §3). To distinguish these predicates from logically extreme predicates such as *perfect* and the others consider above, I’ll refer to them as *non-logically* extreme predicates.

- (64) a. The meal was *just amazing*.  
 b. The pharmaceutical industry in Germany is *just huge*.  
 c. The dessert was *simply delicious*.

<sup>20</sup>The denotation of EEs proposed in this section is fully compatible with a Rooth style account that treats exclusives as associating with focus, as opposed to the QUD. On this view, the contextual constraints on the alternative set would be fixed by the value of C. A possible denotation along these lines in the spirit of Wiegand (2017) is proposed below.

(i)  $[[\text{EE}]] = \lambda C_{\leq} \lambda p. \forall q [(q \in C_{\leq} \wedge \text{A.Worthy}(q)) \rightarrow q \leq p]$

See Coppock and Beaver (2014): 26 for further discussion on the relationship between QUD-based and focus-based approaches to exclusivity, and in particular on the idea that the two approaches are by-and-large based on similar premises.

Contrary to logically extreme predicates, non-logically extreme ones do not denote the end-point of a scale proper: it is perfectly possible, for example, to ascribe the property *amazing* to object A, and think of another object B that instantiates the property to a higher degree. As a result, the availability of EEs with such predicates seems to pose a problem to the analysis, as it calls into question the link between the felicity conditions of EEs and the prejacent’s compliance with the EPG. For instance, one could conceive of a granularity-based alternative to *amazing* that would be logically true of object A but not of object B – that is, that would asymmetrically entail *amazing* and would therefore turn out to be assertion-worthy, thus contradicting the contribution of the exclusive. Yet, I argue that this scenario, while in principle available, hardly ever materializes. First, most intensifiers that seemingly affect the truth-conditions of these predicates do not actually do so. Second, those intensifiers that *do* create asymmetric entailment configurations are normally not salient to the interlocutors, and thus fail to be part of the alternative set evoked by the predicate.

Before elaborating on these points, let us briefly consider the semantics of non-logically extreme adjectives, following Morzycki (2012) proposal. Morzycki suggests that these predicates, similar to regular gradable adjectives, denote relations between individuals and degrees. What distinguishes them from regular gradable adjectives is that the degree to which the property holds is “off the scale” – i.e., such a degree must exceed the portion of the scale that the interlocutors would reasonably consider in the context. More precisely, Morzycki argues that the region on the scale associated with extreme adjectives constitutes a *zone of indifference* – it is so high that differences between individuals comprised in that range become irrelevant, even though these individuals will still instantiate a property to different degrees.<sup>21</sup>

Let us now consider two sets of modifiers that can be used to intensify these predicates, and could therefore be seen as generating alternatives that asymmetrically entail the bare adjective. One type of modifier is the subclass of degree words that Morzycki calls *Extreme Degree Modifiers*, already introduced in §3 and repeated below.<sup>22</sup>

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<sup>21</sup>On Morzycki’s analysis, this property is captured by the requirement that the standard of the adjective be located in the range of degrees that exceeds  $\text{Max}(C)$ , the maximal salient degree in  $C$ .

- (i) a.  $\llbracket \text{BIG}_C \rrbracket_{\langle e, dt \rangle} = \lambda x \lambda d. d \in C \wedge \text{Big}(x)(d)$
- b.  $\llbracket \text{GIGANTIC}_C \rrbracket_{\langle e, dt \rangle} = \lambda x \lambda d. \underline{d} > \text{Max}(C) \wedge \text{Big}(x)(d)$

<sup>22</sup>An anonymous reviewer also suggests *in every respect* as a possible candidate for a granularity-based alternative that provide a more granular description while shifting towards the extreme of the scale. Yet, this doesn’t appear to provide a counterexample to the idea that adjectives like *amazing* conform to the EPG. To begin with, this modifier doesn’t appear to be qualify as a granularity-based alternative, in the sense that it doesn’t pick out a sub-interval or a super-interval of the bare adjective; in fact, it appears to be quantifying on dimensions according to which the predicate applies (see, among others, Sassoon 2012). In this respect, it is important to note that the bare form of *amazing*, based on Sassoon’s discussion, appears to behave similarly to expressions whose bare form requires that the property already applies to all contextually relevant dimensions – i.e. adjectives such as *healthy*. This is shown by the fact that they can be modified by exceptive phrases, which are normally taken to combine only with predicates encoding universal quantification (von Stechow 1993; Moltmann 1995). This yields a contrast with adjectives such as *sick*, which instead only require that the property apply along at least one relevant dimension.

- (i) The meal was *amazing*, except for its presentation on the plate.

- (65) **Extreme Degree Modifiers (EDMs):**  
*Downright, flat-out, full-on, outright, balls-out...*

Morzycki suggests that EDMs, similarly to ordinary degree words such as *very*, boost the standard of the modified adjective; as such, on this analysis, they are expected to effectively impact the truth-conditions of the predicate, and would therefore be able to yield an alternative that asymmetrically entails the bare adjective.

Yet, upon further scrutiny, this prediction is hardly empirically substantiated: similar to the intensifying alternatives of logically extreme predicates, EDMs do not seem to have a truth-conditional effect on non-logically extreme predicates – an observation which, incidentally, questions their status as degree modifiers in the first place. To begin with, the canonical test for entailment suggests that negating an EDM-modified extreme predicate while asserting the predicate also leads to a contradictory effect, similar with what we observed for *perfect*, *impossible* and other logically extreme predicates; while this effect is ostensibly milder than it is for logically extreme predicates, it is especially clear when extreme adjectives are compared to their mid-scale counterparts (in (67-a)).

- (66) Non-logically extreme predicates:  
a. #The meal was *amazing*, though not DOWNRIGHT amazing.  
b. #The pharmaceutical industry in France is *huge*, though not FLAT-OUT huge.
- (67) Mid-scale predicates:  
a. The meal was *good*, though not VERY good.  
b. The pharmaceutical industry in France is *big*, though not VERY big.

The lack of truth-conditional effects of EDMs is confirmed by the observation that it is odd to use the combination of an EDM and a non-logically extreme adjective in contrastive focus with a bare occurrence of the adjective: in particular, the deviance of contrasts such as those in (68) seems to be rooted in the fact that they pit against one another two elements that are not different enough from one another to be juxtaposed. Similar constructions are instead considerably more felicitous when they involve mid-scale adjectives such as *good*.

- (68) Non-logically extreme predicates:  
a. #The meal I had yesterday was *amazing*. But this one is even better: it's DOWNRIGHT amazing.  
b. #The pharmaceutical industry in Germany is *huge*; but the cheese industry in France is even bigger: it's FLAT-OUT huge.

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(ii) Our dog is *healthy*, except for its intestine.

(iii) #Our dog is sick, except for its intestine.

This suggests that, in its bare form, the denotation of *amazing* implicitly requires that the property hold for all (contextually relevant) dimensions. It is indeed possible to think of scenarios in which the predicate is used without this requirement being satisfied; but these scenarios can be seen as similar to scenarios in which *perfect* is used without the property reaching the endpoint of the scale. Accordingly, adding *in every respect* forces an interpretation of awesome that adheres to its denotation, rather than one in which the standard for awesomeness is shifted upwards.



- (69) Mid-scale predicates:
- a. The meal I had yesterday was *good*. But this one is even better: it is VERY good.
  - b. The pharmaceutical industry in Germany is *big*; but the cheese industry in France is even bigger: it's VERY big.

Taken together, these observations suggest that EDMs, while a productive strategy to refine description containing non-logically extreme adjectives, do not generate intensifying alternatives that asymmetrically entail the unmodified form of the predicate.<sup>23</sup> As a result, the availability of these modifiers remains fully compatible with the idea that non-logically extreme predicates are also subject to the EPG.

Let us now consider another type of intensifying alternative: the one represented by modifiers such as *super* or *incredibly*. At first glance, these seem to indeed generate a situation of asymmetric entailment, as shown by the fact that they are considerably more felicitous than EDMs in contrastive constructions.

- (70) a. The meal was *amazing*, though not SUPER amazing.  
 b. The pharmaceutical industry in Germany is *huge*, though not INCREDIBLY huge.
- (71) a. The meal I had yesterday was *amazing*. But this one is even better: it is SUPER amazing.  
 b. The pharmaceutical industry in Germany is *huge*; but the cheese industry in France is even bigger: it's INCREDIBLY huge.

Yet, while these modifiers appear to be indeed affecting the truth-conditions of these predicates, it remains doubtful that they are indeed discursively *salient* candidates to refine the

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<sup>23</sup>More broadly, the lack of truth-conditional effects of EDMs correlates with a series of other properties that are not expected for degree words, and which question the idea that EDMs should be treated as degree words in the first place. For instance, EDMs don't seem to interact with logical operators in general and are not naturally challenged by denials – two properties that crucially distinguish them from well-established degree words such as *very* and *extremely* (see Beltrama 2016 for further discussion, as well as for further diagnostics).

- (i) a. ??The meal isn't {downright/flat-out} amazing.  
 b. A: The meal was {downright/flat-out} amazing.  
 B: No! # It was certainly amazing, but not {DOWNRIGHT/FLAT-OUT} amazing.

Moreover, EDMs are widely attested in combination with predicates that are not gradable, and thus should make no degree slot available for degree modification. Again, degree words such as *very* and *extremely* are ungrammatical in such environments.

- (ii) a. *Flat-out/Downright* everybody hates us. Quantifier  
 b. She *flat-out/downright* said that! Verb
- (iii) a. \**Very/Extremely* everybody hates us. Quantifier  
 b. \*She *Very/Extremely* said that! Verb

While it is in principle possible that the uses of *downright* and *flat-out* in (iii) encode a different meaning than the uses next to *huge* and *amazing*, the cross-categorial versatility of these modifiers, combined with the observation that they have an intuitively similar effect across all these environments, is much easier to be accounted for under a view that doesn't treat them as degree words in the first place.

descriptions containing non-logically extreme adjectives. As can be recalled from Morzycki’s analysis, predicates such as *amazing* represent a point on the scale beyond which no more granular specifications are pragmatically relevant. This suggests that – under normal discourse circumstances – granularity-based alternatives containing intensifiers like *super* or *incredibly* should not be salient to the interlocutors as options to zero in on the facts that are being described. In other words, refinements of descriptions containing predicates such as *amazing* or *huge* are pragmatically expected to involve the lower portion of the interval associated with the adjective; by contrast, refinements involving the higher portion of the interval, while in principle possible, are not expected to be conversationally relevant – unless this range of the scale is pragmatically made salient in the conversation.

This idea is supported by an important empirical observation. If alternatives such as *super* or *incredibly* are indeed made salient in discourse (as in (72-a)), the felicity of an EE in combination with bare non-logically extreme predicates appears to be considerably diminished. In particular, the source of the problem seems to be rooted in the observation that, once *incredibly* is inserted in discourse, the only possible reading of *just* is a canonical “no more than X” one, as opposed to an emphatic one – which in turn generates a conflict with the presupposition introduced by “too”. No comparable degrading, instead, is observed if the previous description only contains the bare adjective, as in (72-b).

- (72) a. **Zone of indifference made salient:**  
 A: How was Mary’s performance?  
 B: Oh, man. It was *incredibly* amazing!  
 A: And how about Charles’?  
 B: # Just amazing too!
- b. **Zone of indifference not made salient:**  
 A: How was Mary’s performance?  
 B: Oh, man. It was amazing!  
 A: And about Charles’?  
 B: Just amazing too!

Notably, the emphatic effect of *just* can be retained if the exclusives target the whole combination of *super/incredibly* + Adjective (in (73)).

- (73) A: How was Mary’s performance?  
 B: Oh, man. It was *incredibly* amazing!  
 A: And about Charles’?  
 B: Just *incredibly* amazing too!

Taken together, these observations suggest that the felicity of EEs with non-logically extreme adjectives is also crucially tied to the EPG, in line with the analysis outlined above. Once logically stronger descriptions are made conversationally available, thus defying the EPG, EEs cease to be felicitous, and become only amenable to an interpretation as canonical exclusives.

## 5.6 Back to the puzzle

We can now return full circle to the puzzle presented in the beginning of the article: how can we explain EEs' dual, seemingly paradoxical nature as exclusive operators – which typically rule out higher ranked elements on a scale – and intensifiers – which typically invite us to consider such elements? On the current analysis, these two seemingly incompatible elements can be crucially reconciled via the idea that EEs' exclude propositions based on their assertion-worthiness. In particular, as a result of the interaction between granularity and scalar extremeness, ruling out more fine-grained alternatives as non-assertion-worthy essentially amounts to signaling that intensifying alternatives are permissible refinements of the description, while hedging ones are not. Hence, the intensification effect. Needless to say, the type of intensification induced by EEs is different from the one typically brought forward by intensifiers in that emerges indirectly, rather than compositionally: specifically, it is the result of the interaction between extremeness and exclusiveness, rather than the outcome of a modifier that directly boosts the degree of a property or the attitude of the speaker – as canonical intensifiers normally do (Beltrama and Trotzke 2019 for an overview).

By the same token, it is also possible to capture the anti-hyperbolic flavor and the sense of epistemic certainty, the other two intuitive effects of EEs that normally surface when trying to paraphrase their contribution (see §2.2). Anti-hyperbole is part and parcel of the core contribution of these modifiers – and in particular of the fact that deploying *just* and *simply* conveys that an extreme predicate is being used in a way that fully adheres to its truth-conditions – as opposed to a case of loose talk, exaggeration, or any other liberal (yet, still pragmatic admissible) use. As for epistemic certainty, the effect can be linked to the fact that, by putting the listener in the position of inferring which granularity-based alternatives are permissible and which ones are not, they eliminate the space of uncertainty surrounding the scalar predicate, highlighting a path to compute a complete answer to the QUD. Hence, the sense of definitiveness brought about by the modifier, along with the effect of redundancy generated by the move of further elaborating on a statement containing an EE (see (11a) in §3.1).

In a similar way, we can also appreciate how the current account captures the remaining signature properties of EEs: their lack of truth-conditional content and their lack of interaction with logical operators. As for the lack of truth-conditional effects, this property follows from the fact that EEs, contrary to their canonical counterparts, do not assert the falsehood of the alternatives to the prejacent; in fact, they indicate that permissible refinements of the prejacent are logically entailed by the prejacent itself – that is, they are true in all scenarios in which the prejacent is also true. This explains why, contrary to ordinary uses, it is impossible to conceive of a contrast between a scenario in which a proposition without the exclusive has a different truth value from its counterpart with the exclusive: if the former is true, the latter will also be true. The lack of truth-conditional effects of EEs similarly allows us to capture their inability to interact with logical operators such as negation, or to be targeted by direct denials to the exclusion of the rest of the utterance content. To the extent that negation and denials target the truth-conditional dimension of the propositional content, and to the extent that a proposition with an EE is truth-conditionally equivalent to one without it, it is predicted that EEs cannot be targeted in isolation from the rest of the propositional content.

## 6 The landscape of exclusivity revised

Let us conclude by briefly considering the implications of the analysis for the study of exclusivity at large. On the current proposal, the basic ingredients to the denotation of EEs are the same that have been posited to capture the meaning of exclusives in general: a set of pragmatically constrained alternatives (here, by a Question Under Discussion); an ordering (here, grounded in granularity<sup>24</sup>

); and a quantificational operator that excludes alternatives ranked higher than the prejacent. The one substantive change from the template involves allowing for the possibility of an exclusion mechanism – implemented via the notion of assertion-worthiness – ensuring that alternatives can be ruled out for reasons other than being false. While this modification successfully captures the contribution of EEs, it also raises the question of how applicable it can be to capture further patterns of variation within the category of exclusive operators. Specifically, is the idea that true alternatives can be ruled out by an exclusive a quirk of EEs, or is it shared by some non-emphatic uses as well? And if the latter is the case, can the notion of assertion-worthiness provide a viable analytical tool to model these cases as well? While providing an exhaustive answer to these questions would go beyond the scope of this article, I suggest that a brief comparison between EEs and two other varieties of exclusives – *minimal sufficiency* exclusives and *indifference-marking* exclusives – could serve as a guide for further research on the topic.

### 6.1 Minimal sufficiency exclusives

The first variety I consider is *minimal sufficiency* exclusives (Grosz 2011; Coppock and Beaver 2014; Coppock and Lindahl 2015; Panizza and Sudo 2020), shown in (74).

- (74) a. *Just* the thought of you sends shivers down my spine.  
b. *Just* a letter from her makes me happy.

Informally stated, the contribution of these exclusives is that something ranked as low as the prejacent – i.e., “the thought of you” – is sufficient to instantiate a particular causal effect, with excluded higher ranked alternatives corresponding to things that are normally more likely to bring about the effect than the prejacent – e.g., “the sight” or “the smell”. At first sight, these uses appear to be obviously distinct from EEs: to begin with, the alternatives are

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<sup>24</sup>The idea that exclusives can target alternatives related to granularity has been also recently, and independently, suggested by Thomas and Deo (2020) to capture the occurrence of exclusives in equative and comparative constructions:

- (i) Miniature amaryllis are apt to be *just* as tall as hybrid amaryllis.  
(ii) Fafen, the daughter *just* older than Siri, had done the family duty and become a monk

The authors argue that this use, which they call “approximative”, is characterized by two distinctive effects: it conveys that its prejacent is true at a high level of precision; and it conveys that its prejacent is not true at any lower level of precision that would make a stronger claim. They model this contribution by implementing precision via a notion of granularity similar in spirit to the one adopted in the analysis developed in this article, and likewise grounded in Sauerland and Stateva (2011)’s system. I leave an exploration of the connection between emphatic and approximative uses of *just* to future work.

ranked according to a more canonical world-knowledge based strength ranking, rather than granularity; second, no extreme predicate appears to be involved – if anything, the prejacent is ranked low on the relevant scale (see Grosz 2011 on this point). Yet, there is a crucial similarity between the two: similar to EEs, minimal sufficiency exclusives do not entail that the excluded alternatives are false; quite the contrary, they signal that stronger alternatives would still make the sentence in (74-a) true, as shown by the fact that it is infelicitous to negate them once the exclusive has been used. A further parallel is that, similar to EEs, minimal sufficiency exclusives are unavailable with *only*.<sup>25</sup>—

- (75) a. *Just* the thought of you sends shivers down my spine – # but not the sight of you.  
 b. *Just* a letter from her makes me happy – # but not a hug.
- (76) #*Only* the thought of you sends shivers down my spine. On MS reading

These properties raise the question as to whether the analysis outlined for EEs could be extended to shed light on such uses well. On the one hand, it has been suggested that these uses can still be captured via a template for exclusivity where alternatives are excluded qua false – although at the price of considerably complicating the analysis. For example, Coppock and Beaver (2014) propose that minimal sufficiency exclusives have nominal, as opposed to propositional scope, and come with the exclusive operator embedded under an existential quantifier<sup>26</sup>; Panizza and Sudo (2020) claim that minimal sufficiency exclusives are embedded under a scalar operator *even*, which is silent in English but overtly realized in other languages (e.g., Italian).<sup>27</sup> On the other hand, it can be observed that an analysis along the lines of the one outlined for EEs appears to be on the right track to capture these cases as well – and without making the semantic composition more complex by positing silent quantifiers or scalar particles. There is indeed a sense in which, similar to what is the case for EEs, the alternatives of choice in the case of minimal sufficiency exclusives are already inferrable from the prejacent. More specifically, using *just* in the context of (74-a) signals that the proposition “the *thought* of you sends shivers down my spine” contextually entails, though not in a logical sense, that the proposition that e.g. “the *sight* of you sends shivers down my spine”, as well as all the stronger alternatives. It follows that these alternatives need not be introduced by an independent assertion, and that a complete answer to the QUD “What sends shivers down my spine?” can already be computed on the basis of the prejacent – along the same lines of what I proposed for EEs.

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<sup>25</sup>Minimal sufficiency readings of exclusives are also available for *only* in the scope of goal-oriented necessity modals, as in the following example (from von Stechow and Iatridou 2007)

- (i) To get good cheese (in Boston), you *only* have to go to the North End!

See von Stechow and Iatridou (2007) for a detailed analysis of these constructions.

<sup>26</sup>On this view, a paraphrase for (74-a) is that “there is an  $x$  such that  $s$  is ranked as low as – and no higher than – the thought of you and  $x$  sends shivers down my spine”, where the semantic composition at the propositional level is made possible via a series of type shifting operations (see Coppock and Beaver 2014: 399 for details)

<sup>27</sup>See Coppock and Lindahl 2015 for the sketch of yet a different analysis.

## 6.2 Indifference-marking exclusives

Let us now consider the case of *indifference-marking* exclusives, a usage that is typically found in conjunction with DPs embedded under free relatives (Rawlins 2015; in (77)). In the example below, the use of the exclusive signals that, in light of the subject’s goals, handiness was the main relevant reason in determining what tool they chose to use; more referentially precise description than the one used by the speaker – e.g., “the hammer”, “the black hammer” etc. – while potentially able to identify the correct referent, would not have adequately characterized the subject’s choice as related to their goals.

(77) Alfonso *just/simply* grabbed whatever tool was handy.

Indifference-marking uses resemble EEs in three respects. First, they target alternatives that appear to be somewhat similar to granularity-based alternatives. Second, they do not entail the falsehood of the excluded alternatives. For instance, in a scenario in which Alfonso effectively grabs a black hammer, it would be perfectly felicitous to assert (77) and at the same time maintain that the excluded alternatives remain true – e.g., “Alfonso grabbed the hammer”; “Alfonso grabbed the black hammer”. Third, they cannot be conveyed by *only*, for which the sole possible reading is one in which Alfonso grabbed no other tool besides the one that was handy (see Rawlins 2015: 279 for further discussion).

(78) #Alfonso *only* grabbed whatever tool was handy.

Despite these similarities, applying the notion of assertion-worthiness to this usage appears to be less straightforward than it was for minimal sufficiency exclusives. In particular, there seems to be no inferential path that makes it possible to compute what specific alternatives apply in the context on the basis of the prejacent. In fact, only a novel assertion can clarify the matter, making more specific propositions assertion-worthy.

(79) Alfonso *just/simply* grabbed whatever tool was handy – namely the black hammer.

Though assertion-worthiness cannot be particularly helpful here, it remains the case that an exclusion mechanism based on logical negation cannot work either here: more specific alternatives must be ruled out on the basis of a criterion other than truth, possibly a met-linguistic one – e.g., the pragmatic appropriateness of deploying a particular descriptor in light of the subject’s goals (see Rawlins 2015: 284 for several informal suggestions).

## 6.3 The outlook going forward

The comparisons above highlight two observations, both of which can serve as a promising starting point for future research. First, other instantiations of exclusives besides EEs feature the ability to rule out alternatives without entailing their falsehood; this, in turn, indicates that the mechanism whereby alternatives are ruled out should be seen as another parameter of variation among exclusives, which can fall in one of two broad classes: strictly logical exclusion mechanisms, which necessarily entail the falsehood of the excluded alternatives; and exclusion mechanisms that exclude alternatives based on criteria orthogonal to their truth-value – e.g., assertion-worthiness, pragmatic appropriateness etc. Second, this parameter of

variation appears to be lexically restricted, as it correlates with the particular lexical item with which an exclusive is realized: on the one hand, lexical items such as *only* or *merely* appear to be exclusively able to encode the former type of mechanism; on the other hand, lexical items such as *simply* and *just* are flexible enough to be able to encode either type, and can therefore be used both in a canonical or in a non-truth-conditional fashion.

Looking at the broader category of exclusivity, the emerging picture can be described as follows: on the one hand, there are intriguing premises to continue developing the endeavor of capturing the remarkable inventory of uses of these modifiers via a limited set of core semantic mechanism(s); on the other hand, there remains an extensive range of lexical and contextual variability between such uses, not of all of which is likely to be amenable to being accounted for in a unified way. In this perspective, the most productive strategy seems to be to develop a flexible enough template within which different denotations can be related, rather than a fully unified, maximally general denotation able to derive all exclusive uses. To achieve this goal, two steps seem to be especially important: providing a more precise characterization of the array of mechanisms that give rise to non-truth-conditional exclusion; and shedding light of how lexical vs. contextual constraints inform the space of variation in which exclusivity is embedded. In particular, while there seems to be robust evidence of a lexical split between *only*-type and *just*-type exclusives along the lines discussed above, the question remains as to whether, within each category, further distinctions can be found that are driven by the specific lexical item with which exclusivity is conveyed (e.g., *just* vs. *simply*, see footnote 6 above), and which cannot therefore be entirely captured by positing a unified meaning across such items.

## 7 Conclusion

In this paper, I have outlined an analysis of emphatic uses of *simply* and *just* which allows us to capture the distinctive empirical properties of these specific uses, as well as their deeper conceptual and compositional link to exclusive operators at large. Besides solving the puzzle around the distribution and pragmatic effects of emphatic exclusives, the proposal outlined in the paper can afford a jumping off point for further work exploring the interaction between scalarity, exclusion and discourse structure, highlighting a number of intriguing lines of future research across semantics and pragmatics.

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