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"It was just so hard": ineffability *just* as a mixed expressive

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A highly productive debate has arisen over the past two decades concerning the division of labor between semantics and pragmatics in building meaning (Potts 2005; Kennedy and McNally 2005; Sauerland 2012; Roberts 2012; Coppock and Beaver 2014; Gutzmann 2019 i.a.). In this article we illustrate the depth of integration of context-independent and context-dependent meaning through a close analysis of the exclusive operator (EO) *just*. Recent accounts of the many distinct guises of EO *just* have proposed a unified shared function: quantification over sets of alternatives (Horn 2000; Orenstein 2015; Wiegand/Windhearn 2017; 2021; Beltrama 2021). We identify here an entirely new surface manifestation of *just* in the StoryListening Corpus (a set of bereavement narratives elicited during the COVID-19 pandemic), which we term 'ineffability *just*' and argue it serves as a mixed expressive (McCready 2010; Gutzmann 2012; Beltrama and Lee 2015). It encodes both descriptive content as a new flavor of exclusive operator (Beltrama 2021), and simultaneously expressive content (Potts 2005; 2007) signaling that the speaker is at a loss for words in the moment to describe an experience more completely because of their affective response to its profound nature.

1 Introduction

Recent work has provided an increasingly unified semantics for exclusive operators quantifying over sets of alternatives such as *only* and *merely* (Beaver & Clark 2008; Orenstein & Greenberg 2010; Coppock & Beaver 2014; Orenstein 2015). While the exclusive operator *just* might appear to have a number of superficially distinct uses with distinct interpretations, Wiegand/Windhearn (2017; 2021), and Beltrama (2021) have successfully proposed a core shared function (for non-exclusive *just*, see Thomas and Deo 2020).

In this paper we identify a new, previously unobserved variant of *just* which came to our attention in the StoryListening Corpus, a corpus of bereavement narratives elicited during the COVID-19 pandemic. We term this instantiation of the operator 'ineffability' *just*, and it is exemplified in (1)–(2).[1]

(1)   They like, they- they made it so we could go in and look at him behind a window. [1] xxx xx viewing – like we could come in, in small groups, and look behind the window a-and say goodbye. But like [.] that's not – that's, it's *just* – *just* sad. It's *just* sa:d. (Participant 07, 14:10)

(2)   So then, you know, I took care of having the dog cremated. It was all *just* like [.] I-I just am saying this as way of background because it was *just* such: [1] I – I swear to God, I think I aged like ten years in a year. And it was *just* emotional. It was *just* so emotionally- *just* – *just* so ha::rd. And so so sad. And *just* [2] hh anyway to get to the point about my mother dying. (Participant 34, 12:21)

We build on Beltrama's (2021) account of another guise of *just* to analyze the descriptive content of ineffability *just* as that of an emphatic exclusive (EE) operator quantifying over a set of alternatives (Coppock and Beaver 2014). Our analysis establishes that the discrete guises of exclusive *just* have a shared semantic core – one of exclusion of alternatives – and that the locus of differentiation among the various operators is the nature of the set of alternatives over which the operator quantifies and on what grounds alternatives are excluded.

We further propose that ineffability *just* has expressive content (Potts 2005; 2007), signaling that the speaker is struggling to find words in the moment of utterance to describe an experience or event because of its profound or extreme nature. In this capacity, ineffability *just* is understood to be a so-called 'mixed expressive' (McCready 2010; Gutzmann 2012; Beltrama and Lee 2015) contributing to the discourse in both the descriptive and expressive dimensions. While it is beyond the scope of this article to review all of the contexts in which ineffability *just* appears,

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[1] Transcription conventions follow the Vienna Oxford International Corpus of English (VOICE) Project (2007). VOICE *VOICE Transcription Conventions [2.1]*: http://www.univie.ac.at/voice/voice.php?page=transcription_general_information (accessed January 3, 2023).

we suggest here that it plays an important role in marking the effort to externalize internal mental states.

At stake in what may seem like an exercise in lexical semantics is the far larger set of questions concerning the ways that semantic and pragmatic processes conspire to generate rich, contextualized meaning. Over the past several decades, a productive debate has emerged concerning the division of labor between convention and context, giving rise to new formal approaches to integrating context-dependent and context-independent content (Potts 2005; 2007; Kennedy and McNally 2005; Harris and Potts 2009; Roberts 2012; Sauerland 2012; Gutzmann 2019 i.a.). Our contribution illustrates the potential for diversity among expressive tokens, as well as the depth of interplay between truth conditional and speaker-oriented expressive meaning (see also Iatridou and Tatevosov 2016). Our findings are compatible with theoretical approaches which assign independent formal representations to truth-conditional and expressive meaning and suggest that computation proceeds in multiple dimensions.

The nature of the StoryListening Corpus and the narratives therein are described briefly in section 2. In section 3, we review the many surface guises of *just* addressed in the literature and illustrate that ineffability *just* is a surface use distinct from previously identified forms, but closest to so-called "emphatic *just*". We then present Beltrama's (2021) account of truth-conditional content for emphatic exclusive operators and show that this can be extended to ineffability *just*. In section 4 we argue that ineffability *just* also contributes meaning in the expressive dimension and can thus be best analyzed as a mixed expressive (using the logic presented in McCready 2010). Section 5 concludes the article.

2 The StoryListening Corpus

The unique nature of the narratives in the StoryListening Corpus is one of the reasons ineffability *just* frequently appears. The StoryListening intervention was conducted as a single-arm feasibility study of the use of a single conversational session to alleviate the existential loneliness of those experiencing grief during the COVID pandemic (Reblin 2022; Ekström and Gramling 2023). The intervention consisted of participants recounting their experiences of the death of a family member, friend, or patient (from their perspectives as a clinician) over televideo with an end-of-life doula as interlocutor and listener. In general, doulas provide non-medical emotional support to those facing times of intensity, such as birth, death, and grief. The *StoryListening* Doula role focuses on inviting and listening to participant experiences. Doulas do not advise, provide medical advice, or provide psychotherapy; instead they serve to receive candid reflection as directed and managed by the storyteller themselves, with acknowledgement, recognition, and gentle prompting when appropriate. All participants in the study were adult English speakers residing in the United States. Participants were recruited via fliers and advertisements distributed in the community, online, through health professional networks, and by word-of-mouth. Participants

meeting eligibility requirements completed institutional review board-approved informed consent conversations and documentation, and study procedures were approved by the institutional review board at the University of Vermont (protocol #00000925). The video and audio for each participant's StoryListening encounter was recorded, creating the StoryListening corpus.

Description of the corpus and its impact as an intervention is addressed in detail elsewhere (Reblin et al. 2022; Ekström and Gramling 2023), but here we concern ourselves with linguistic features of these narratives. The study concluded following sessions with 62 participants, varying in length from approximately 3000 to 18,000 words per session (total wordcount of the corpus is approximately 382,000 words). On average, the participants account for most of the talk for each interview; the doulas purposefully structure their responses, prompts, and contributions to be minimal in length. The sessions were automatically transcribed using Otter.ai and then the transcriptions were corrected by hand by the research team.

For this study, we analyzed 41 corrected transcripts in NVivo using a text search for the word *just*. Of the 2784 uses of the word within this portion of the corpus, we identified 191 (6.9%) to be instances of ineffability *just*, which we then confirmed with the video recordings.[2] In case of disagreement between the analysts as to the nature of a token (whether it was ineffability *just* or another type), the token was discarded from our set.

3 The many guises of *just*

Traditional accounts of *just* identify a wide range of uses descriptively (Lee 1987; Kishner and Gibbs 1996), but recent work has unified many of these using the semantics of exclusive operators (Wiegand/Windhearn 2017; 2021; Beltrama 2021).[3] In this section we review the surface guises of *just* as described in the literature and demonstrate that ineffability *just* is a distinct and as yet unidentified variant. We then show that ineffability *just* is most like what has been termed emphatic *just* (recently investigated in Beltrama 2021), though with an important difference, before turning to propose an account of its truth-conditional contribution.

3.1 Types of *just* that are not "ineffability" *just*

Let us begin with uses of *just* which are clearly distinguished from ineffability *just* in both their syntax and their semantics. "Specificatory" *just* is an adverbial delimiting some spaciotemporal adjacency and can often be paraphrased with *right* or *barely* (though these adverbials have

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[2] Tokens were identified using binary decision rubric (affirmative answer prompts continuation and finally positive identification): Exclusive operator? → Not unexplanatory/depreciatory/emphatic? → Evidence of affective response/ characteristic disfluencies/hesitation → Ineffability *just*. Each example required agreement of at least two coders or it was excluded from the token list.

[3] Interestingly, the data supporting Lee's (1987) original description of four uses of *just* was drawn from naturally-occurring conversations in a health care setting as well: a set of doctor-patient interviews.

distinct conditions of use and are subject to dialectal variation in interesting ways that we won't pursue here) (Lee 1987).

(3)   I had just/barely finished my homework when it started to rain.

(4)   We were standing just/right/barely beyond the bus stop.

Specificatory *just* can also occur with overt spatial or temporal references, as in *just now* or *just there*. By contrast, ineffability *just* clearly has no spatiotemporal meaning in uses like (1)–(2) or the constructed example in (5).

(5)   The experience was just difficult.

Ineffability *just* as exemplified in (5) is certainly also distinct from "exact" *just*, which can be paraphrased as *exactly* (in (6)) and emphasizes the referent of interrogatives introducing embedded questions.

(6)   Just where do you think you're going?

Also distinct is "comparative" *just* (in (7)) (Kishner and Gibbs 1996:22). Thomas and Deo (2020) group "exact" and "comparative" uses under the term "approximative" in that they convey exactness or nearness

(7)   a.   Jorge tended the farm, just as others in his family had done before him.
        b.   I have just the thing for you.[4]

We now turn to a set of guises of *just* that share more obvious properties with the newly-identified ineffability *just*. The so-called "exclusive" use of *just*, like *only*, associates with a focused element in the sentence and excludes alternatives from a set generated by that focused element. For instance, in (8), the alternative set is one of other salient individuals who might have gone to the party.

(8)   Just [$_F$ Ashwin] went to the party.

Ineffability *just* differs from exclusive *just* in that it need not necessarily associate with an overtly focused constituent. As we discuss in greater detail below, we will follow Orenstein (2015) and Wiegand (2017) in the claim that there are varieties of *just* which generate a set of alternatives based on a covert element in the prejacent. In fact, there are a number of felicitous instances of ineffability *just* in our corpus for which no audible prejacent is ultimately produced (yet the meaning of ineffability *just* still emerges). Compare the responses in (9b–c) containing exclusive *just* with the constructed responses in (10b–c) containing ineffability *just*.

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[4] We thank a reviewer for this example.

(9)   a.   Who all went to the party?
       b.   Just [$_F$ Ashwin].
       c.   #Just…

(10)   a.   How was that experience for you?
       b.   Just difficult.
       c.   Just…

In the case of exclusive *just,* the intended exclusive meaning in (9c) cannot arise in the absence of an overt focused element. In other words, (9c) doesn't provide the hearer with the information that only one member of a possible set went to the party. In (10c), on the other hand, ineffability *just* seems to be able to impart the intended meaning that the experience was extreme (to the degree that further elaboration is impossible for the speaker) without an overt prejacent present.[5] Our account of ineffability *just* presented in section 3.4 below offers an explanation for this contrast.

Further, the set of alternatives over which ineffability *just* quantifies must be ranked according to some contextually salient scale (an account of which is fleshed out thoroughly in 3.4 below), while the alternatives over which exclusive *just* quantifies need not be ordered. For instance, the set of people who might have gone to the party in (8) could all be valued equally in terms of the expectations of the speaker, and it need not be the case that Ashwin is ranked on some conversationally salient scale with respect to alternatives to Ashwin.

On the other hand, the use of *just* called "depreciatory" does requires scaled alternatives, picking out the lowest/least ranked member of the set (Lee 1987). For instance, in (11) we understand Ayesha to be the least interesting or least surprising member of the set of potential callers.[6]

(11)   It was just [$_F$ Ayesha] on the phone.

While ineffability *just* certainly quantifies over a set of alternatives, it does not seem to select the lowest/least ranked member on the salient scale. Compare depreciatory *just* in (12) and ineffability *just* in (13).

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[5] A reviewer asks whether (10c) requires some kind of pro-speech gesture (as in a head shake or shrug) and whether such a gesture would also make (9c) felicitous. Our intuition is that (9c) does not substantially improve under the intended exclusive meaning irrespective of gesture. We asked 9 native English speakers (non-linguists), who confirmed our intuition. As for the pro-speech gesture associated with (10c), many of the 27 instances of ineffability *just* which are not followed by a prejacent in the corpus (see Table 2) are indeed accompanied by identifiable gestures of this sort (or by other non-linguistic audible signals such as long exhales or sighs), though not all.

[6] Robert Gramling (p.c.) points out a use of depreciatory *just* which has attracted negative attention (to the point of prescriptive avoidance) among palliative care providers as exemplified in the constructed example in (i):

(i)   Do you want us to do everything, or just focus on your comfort?

This use of *just* asserts that the focus on comfort is the lowest ranked option among treatment possibilities, as opposed to a member of a set of equally valued (or at least yet unranked) alternatives. For clinically relevant discussions and critiques of gain/loss language, see for instance Bern-Klug et al. (2019) and references therein.

(12)   It was just Ayesha on the phone, not someone important.

(13)   The experience was just sad, #not happy/#not upsetting.

An important part of defining the semantic contribution of ineffability *just* in what follows will be to make precise both the set of alternatives over which the operator quantifies and how that set is identified. This portion of the account is developed fully in 3.4 below.

To complete the comparison of ineffability *just* to other guises, let us consider "unexplanatory" *just,* first identified in Wiegand (2017). Unexplanatory *just* seems to appear in contexts in which the speaker is distancing themselves from the reason or explanation for the prejacent proposition.

(14)   I was sitting there and the lamp just broke.

Wiegand proposes that unexplanatory *just* quantifies over a set of reasons/explanations, which are alternatives triggered by a covert reason element in the prejacent. She argues that prosodic focus is a parameter for exclusives, present in some cases and not in others (in other words, she argues for the dissociation of focus and generation of alternatives). In her account, unexplanatory *just* quantifies over a covert *because* clause and excludes all but the alternative corresponding to "for no identifiable reason" – what Wiegand calls the "minimal cause" CAUSE_0. Thus the utterance *the lamp just broke* has a prejacent which is the event of the lamp breaking, and contains a covert causation element as in (15a) – the necessity modal and minimal cause. This covert element triggers the generation of the set of alternatives in (15b) (for example, (15c)), and unexplanatory *just* excludes all but the minimal cause by virtue of the denotation in (15d).

(15)   a. ϕ = e because CAUSE_0, where CAUSE_0 is some "minimal cause"
        b.   C = {e because x | x is a contextually salient potential cause for e}
        c.   {CAUSE_0, because of an earthquake, because someone knocked it over, because we hit it with a baseball, because of a power surge…}
        d. $[[\text{EXCL}(\varphi)]] = \lambda w. \forall q (q \in C \wedge w \in q) \rightarrow \varphi \leq q]$. (Wiegand 2017: 423)

To paraphrase the derived meaning, "For all explanations q = *The lamp broke necessarily because x* that are not entailed by φ = *The lamp broke necessarily because* CAUSE_0, w $\notin$ q. (Wiegand 2017: 423).[7]

Clearly ineffability *just* does not quantify over reasons/explanations and is thus distinct from unexplanatory *just*. An utterance with ineffability *just* such as *it was just sad* does not imply that the experience was sad for no particular reason or due to minimal cause. We can even follow it with a less than minimal explanation as in the constructed example in (16).

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[7] Wiegand suggests that the necessity modal is required to derive the correct truth conditions and ensure that utterances of unexplanatory just are felicitous when the speaker follows up with a proposed explanation (referring the reader to Wiegand 2017). On the subject of coherent continuation of the discourse after the use of ineffability *just*, see discussion at the end of section 3.4 and footnote 10.

(16)   It was just sad… because we couldn't be by his side when he died.

That said, Wiegand (2017) makes an important suggestion in reference to unexplanatory *just* that will be relevant here: she briefly mentions (but does not fully develop) the possibility that unexplanatory *just* also contains expressive content. She cites examples in which unexplanatory *just* is repeated, pointing out that as in the case of expressives like *damn* (Potts 2005; 2007), repetition serves to reinforce an aspect of the intended meaning – in this case the unexplained nature of the proposition in the prejacent.

(17)   I left my damn keys in the damn car. (Potts 2007: (34))

(18)   The legislators didn't just change the wording because they just felt like it.
         (Windhearn (Wiegand) 2021: 370)[8]

In what follows, we take up and formalize Wiegand's suggestion in accounting for the contribution of ineffability *just* – that it has both descriptive and expressive content.

To summarize the findings of this section, while there is some overlap in characteristics and in function, ineffability *just* is distinct from at least five other types of *just* identified in the literature, the properties of which are outlined in **Table 1**. For completeness, we have also included in the table a sixth guise, emphatic *just*, which we explore in more detail in section 3.2 below.

Type of *just*	Quantifies over alternatives?	Alternative set ordered?	Trigger for generating alternatives
Specificatory	no	–	–
Exact	no	–	–
Comparative	no	–	–
Depreciatory	yes	yes	overt
Unexplanatory	yes	yes	covert
Emphatic	yes	yes	overt
Ineffability	yes	yes	overt/covert

Table 1: Properties of guises of *just*.

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[8] A reviewer points out that unexplainable *just* in (18) is in the scope of negation. It would seem that some varieties of *just* fare well in the scope of negation while others don't. Interestingly, emphatic and ineffability *just* don't seem to retain their intended meaning/function in the scope of negation.

(i)   The fish wasn't just gigantic! (emphatic meaning not available – only depreciatory)

3.2 Emphatic *just*

We will propose in what follows that ineffability *just* is closest in its truth-conditional semantics to "emphatic" *just,* most recently analyzed in Beltrama (2021). For this reason we explore the properties of emphatic *just* separately. Emphatic *just* serves to highlight or emphasize an extreme meaning, expressed by a prejacent which is an extreme scalar predicate.

(19)   The fish was just gigantic.

(20)   The department's contribution was just miniscule.

Emphatic exclusives are known to be markedly different from other exclusive operators in that they do not seem to be placing an upper bound on the alternative set. Compare the emphatic exclusive use of *just* in (19)–(20) with the attenuating effect of *only* or depreciatory *just* in (21).

(21)   She is only/just a professor of linguistics, nothing more.

Ineffability *just* appears to also be a flavor of emphatic exclusive in that it points to the strong or extreme nature of the experience described.

(22)   You never had experience with dementia. You never had experience with
        COVID. And here they are, like coming together. And it's just like, you know,
        you just feel like [.] you just don't [.] it's all a crapshoot. You do not know what
        to do. You just totally don't know what to do. (Participant 34, 54:39)

On the other hand, the predicates that tend to appear with these two types of emphatic exclusive *just* are different. Emphatic *just* typically precedes extreme scalar predicates that can be understood to indicate the scalar endpoint, like *gigantic.* In contrast, ineffability *just* tends to occur with predicates that are less than extreme in nature, such as *sad* and *difficult* above. While these are not neutral terms, they do not necessarily fall at the extreme end of the scale either. **Table 2** displays the distribution of predicates combining with ineffability *just* in the StoryListening corpus. Note that out of 119 instances of ineffability *just* followed by an overt predicate, 24 appear with the predicates *hard, difficult,* and *sad.*

   Beltrama (2021) points out that in fact emphatic *just* can also be found with a set of gradable predicates which are "non-logically extreme" in that they do not seem to denote the scalar endpoint:

(23)   a.   The fish was just huge.
        b.   Dinner was just delicious.

The question that then arises is how to reconcile the ability of emphatic *just* to appear with a non-extreme (or at least, less extreme) predicate like *huge* with the notion that its emphatic contribution is linked to its association with predicates at the extreme of the relevant scale.

Predicate	# of instances	Proportion of total ineffability *just*
Hard	10	6.8%
Sad	8	5.5%
Difficult	6	4.1%
Odd	5	3.4%
Bad	3	2.1%
Crazy	3	2.1%
Heartbreaking	2	1.4%
Emotional	2	1.4%
table total	39	26.7%

Table 2: Predicates in the StoryListening Corpus.

Morzycki (2012) identifies predicates such as those in (23) as having the property of being "off the scale" not in the logical sense, but in a contingent way – based on what the interlocutors would consider reasonable in the context. More precisely, they inhabit a point on the scale that Morzycki calls a "zone of indifference" in which variation from the predicate is no longer conversationally relevant. The interlocutor's expectations in context are that any further refinement of descriptions containing predicates such as *huge* would involve the lower portion of the interval associated with the adjective (e.g. *medium*). Unless somehow made pragmatically salient, the higher portion of the interval (the zone of indifference) will not be expected to be conversationally relevant. In this way, *huge* can essentially serve as an extreme scalar predicate in context, because the portion of the scale above *huge* is not relevant.

Pursuing Morzycki's approach concerning non-logically extreme predicates allows Beltrama (2021) to propose the same semantics for emphatic *just* when paired with logically extreme predicates like *gigantic* as when paired with non-logically extreme predicates like *huge*. In other words, both predicates can be treated as extreme, whether logically or contextually.

In what follows we will use a similar strategy in characterizing the prejacents that appear with ineffability *just*. While predicates like *hard, sad,* and *difficult* do not necessarily represent a scalar endpoint, we will claim that in the context of describing experiences of this type, no more extreme or more elaborate predicate is made relevant in the context. The interlocutor in this case is already aware of the profound nature of the situation under discussion – so profound, indeed, that the speaker is expressing difficulty in even articulating it. As Morzycki proposes, these non-logically extreme predicates are rendered extreme by context.

If our understanding of these prejacents is on the right track, they would represent an intriguing instance of loose talk – a phenomenon better-studied in its hyperbolic or lexical broadening manifestation (e.g Lasersohn 1999; Sperber and Wilson 2008; Carston 2010). Research suggests that an utterance like *they have infinite resources* or *everyone has a smartphone* deploys descriptive inaccuracy to convey additional affective information (Bergen 2016; Feinmann 2020) and may provide processing advantages (Franke 2011; Rubio-Fernandez et al. 2015; Lauer 2019). In the case of ineffability *just*, the choice of a less-than-extreme prejacent may indeed ultimately serve to draw attention to the extreme and emotionally-heightened nature of both the original experience and its recall/narration, and to enhance the suggestion that further elaboration is difficult for the speaker.[9] While space constraints prevent a deeper exploration of this phenomenon here, taking this view of the prejacents that appear with ineffability *just* will allow us to define it as an emphatic exclusive in the semantic account in 3.4.

3.3 Supporting evidence from prosody and disfluency

While the present account is largely focused on the semantics and pragmatics of ineffability *just*, special prosodic features bear mention (though we won't analyze these here). In the StoryListening Corpus, we frequently find a short pause (of less than one second) between *just* and the predicate that follows. It seems plausible that this characteristic hesitation provides further signal that the speaker is struggling to identify a semantically suitable prejacent due to the nature of the experience being described and their resulting emotional state.

A special set of occurrences of ineffability *just* from the Storylistening corpus make this case even more plain. We observe a number of instances of non-adjacency of ineffability *just* and the predicate of the following three types: (a) *just* and the predicate are separated by a long silence (of two seconds or more), (b) *just* and the predicate are separated by additional instances of *just* (repeated *just*), or (c) the speaker never ultimately voices the complete prejacent, and after a pause or delay restarts with a new sentence. Sometimes these types of non-adjacency occur together or in clusters. Consider examples from the StoryListening Corpus below:

(24)   PARTICIPANT: And, you know, I talked to my mom and [4] [short sigh] so [4]
        DOULA: If you need to pause or take a break, that's totally fine. Anytime.
        PARTICIPANT: Yeah. Yeah. Yeah, it just, it just, you know, it just [whooshing expressive exhale/sigh] so. [2] So on [date], which was a Monday, uh, they hired a new nurse at the facility that came in and she started to work and four hours into her-her shift …
        (Participant 22, 13:00)

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[9] Though crucially this is not an instance of meiosis as the intent is not a witty understatement of the state of affairs or any kind of intentional minimization.

(25)   PARTICIPANT: And when my nephew died a month ago, we-we couldn't. They, they like, they-they made it so you could go in and look at him behind a window. Viewing like we could come in, in small groups, and look behind the window a-and say goodbye. But like, That's not [1] that's, it's just-just sad. It's just sad.
DOULA: Horribly sad.
PARTICIPANT: Which makes it really sad. Just [1] [starts crying]. I really didn't know I was so sad until I started talking to you. (Participant 7, 20:20)

(26)   So you don't get to snuggle with these cute little babies that are born and bond with them and-and-and smell the baby smell and the-the peace and joy that that brings, yo- you're missing that because you're trying to protect people. It's just (.) it's just (.) sad (1) It's just so sad. (Participant 7, 22:49)

In (24)–(26), we see evidence suggesting that the speaker is working to retrieve a word sufficient to describe the experience (see e.g. Liscombe et al. 2003; Bell et al. 2009; Cole and Reitter 2017), as well as evidence that they are in a heightened emotional state while relaying these stories.

Indeed, of the 41 participant transcripts reviewed, we identified 191 instances of ineffability *just*. Of those, more than a third featured nonadjacent predicates, and in more than half of those cases no predicate was ultimately produced (**Table 3**).

Predicate status	# of instances	Percentage of total
immediate predicate	119	62.3%
late predicate	45	14.1%
no predicate	27	23.5%

Table 3: Predicate status.

Speakers thus seem to be communicating the extremity of the experience and the strength of their response to it not only through the lexical item *just* itself, but also through the profile of disfluencies often associated with its production.

3.4 Ineffability "just" as a type of emphatic exclusive

Because of their deep similarities, in this section we will develop an account of ineffability *just* which is modeled on Beltrama's (2021) account of the semantics of emphatic *just*. We will also seek to explain the differences between these two flavors of emphatic exclusive.

Beltrama proposes that emphatic *just* operates over granularity-based alternatives, or alternative descriptions of the relevant state of affairs at a greater degree of detail. He claims that the effect of emphatic *just* is to rule out those more granular alternatives because they are not

assertion-worthy – that is, they would not contribute any additional information in advancing the conversational game.

This account is based in the Question Under Discussion framework (Roberts 1996/2012) and follows the approach to exclusives advocated for in Coppock and Beaver (2014), in which 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
- a contextually determined strength ranking over the alternatives $\geq_s$

In what follows, we propose that ineffability *just* and emphatic *just* differ in the nature of the alternative set and in the principle by which alternatives are excluded.

First let us review Beltrama's account of emphatic *just*. In the case of an assertion like (27), Beltrama models the CQ as "What size was the fish?", with possible answers "The fish was X".

(27)   The fish was gigantic.

Beltrama's proposal is that the utterance in (27) rules out alternatives of the same level of granularity like "small" or "medium", but not necessarily of greater degrees of granularity such as "incredibly gigantic". For emphatic *just,* $\geq_s$ will correspond to such a granularity-based ordering as in (28b). The parameters in the information state S can be represented as follows.

(28)   a.   CQ: {p = F was gigantic; ap = F was incredibly gigantic; bp = F was really gigantic}
        b. $\geq_s = \{< ap, p >, < bp, p >, < ap, ap >, < bp, bp >, < p, p >\}$

The [[EE]] operator (*just*) quantifies over this set of granularity-based alternatives. Beltrama's (2021) formulation of this operator based on the framework elaborated in Coppock and Beaver (2014) has it rule out more granular alternatives to the prejacent not due to the fact that they are false, but instead that they are not assertion-worthy. A proposition is assertion-worthy if proffering the proposition is justified in order to resolve the QUD, and not assertion-worthy if there is a path to resolving the QUD without it. Thus, "the fish was just gigantic" asserts that "the fish was gigantic" fully resolves the CQ because *just* rules out all more granular alternatives. Beltrama's denotation for emphatic *just* is in (29).

(29)   <u>Emphatic Exclusive *just*</u>
        $[[EE]]_s = \lambda p: MIN^{EE}_s (p). MAX^{EE}_s (p)$
        $MIN^{EE}_s = \lambda p. \exists q \in CQ_s [\text{Assertion-Worthy}(q) \wedge q \geq_s p]$
        $MAX^{EE}_s = \lambda p. \forall q, q \in CQ_s [\text{Assertion-Worthy}(q) \rightarrow p \geq_s q]$

Applied to the example in (27), the function in (29) would take as its argument a proposition p which is part of the target alternative set of propositions (the set addressing the CQ). This

function presupposes that there is a proposition as strong (= as granular) as "The fish was gigantic" that is assertion-worthy (MIN^{EE}), and it asserts that no stronger (=no more granular) proposition than "The fish was gigantic" is assertion-worthy in S (MAX^{EE}).

Now let us turn to the contribution of ineffability *just*. We propose that there are two substantive differences in the semantics of emphatic and ineffability *just*. First, ineffability *just* quantifies over a different set of alternatives: a set ranked on a scale of elaborateness. Ineffability *just* will have the function of ruling out propositions that are more elaborate than the asserted proposition.

Initially proposed in the modeling of discourse coherence, elaboration is a subordinating relation between two discourse segments (Hobbs 1979; Kehler 2002; Asher and Lascarides 2003) in which the second segment describes the same event but is more detailed and longer than the first. There are a number of formal definitions. Mann and Thompson (1988) establish the elaboration relation between a nucleus (N) and a situation (S) as necessarily one or more of the following:

(30)   set: member; abstract: instance; whole: part; process: step; object: attribute; generalization: specification

Hobbs (1983) defines a segment S1 as an elaboration of segment S0 if "the same proposition P may be inferred from both S0 and S1 and at least one argument in P is more fully specified in S1 than in S0" (Hobbs 1983:31). Cote (2014:8), seeking to establish discourse conditions relevant to subject drop in English, proposes that phrases F1 and F0 are in the elaboration relation if the same proposition P is stated by, entailed by or strongly inferable from both F0 and F1, and some aspect of P is more detailed, clearer or made more relevant in F1.

Building on these definitions concerned with discourse coherence, we can establish a related semantic definition linking two propositions. The core intuition is that a more elaborate proposition is one which contains a more extreme scalar predicate, prompts a more significant update to the information state (Stalnaker, 1978, 1999; Groenendijk & Stokhof, 1991; Veltman, 1996), or potentially both. In other words, if a proposition q is an elaboration of proposition p, then q entails p, and the utterance of q would result in an update containing a more extreme scalar predicate than q and/or a larger number of discrete updates to the information state than the utterance of p. Formally stated:

(31)   <u>Elaboration</u>
        If p, q are propositions referring to the same event, **I** is the information state, and
        α, β are terms on a salient scale S, then q is an elaboration of p iff:
        a. $q \vDash p$
        And one or both of the following holds:
        b. β introduced by $q >_S \alpha$ introduced by p
        c. |updates to **I** due to utterance of q| > |updates to **I** due to utterance of p|

For instance, an assertion like "it was just sad" rules out descriptions that are more elaborated than p = "it was sad" such as q = "the saddest experience of my life" or q = "tragic and devastating", both of which meet both conditions in (31b) and (31c). Interestingly, descriptions of greater granularity as in "extremely sad" are themselves more elaborate by condition (31c), making concrete the intuitive link between emphatic and ineffability *just*. As Asher and Vieu (2005) point out, the elaboration relation is one of subordination; the more elaborated descriptions apply to a subset of the scenarios captured by the asserted proposition as schematized by the partition in **Figure 1**. In other words, the state of affairs described by *sad* is inclusive of the state of affairs described by any more elaborated descriptions.
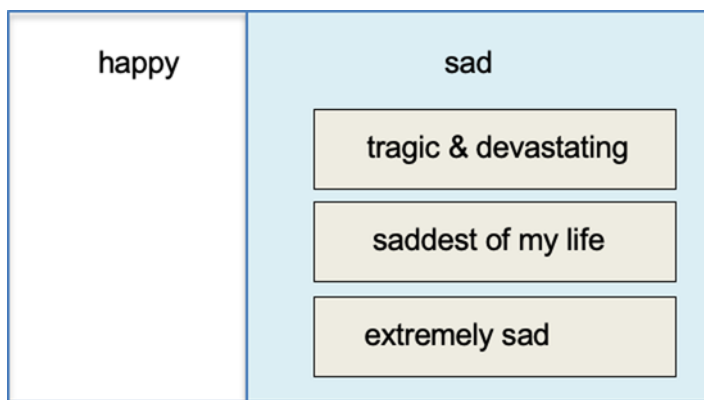

Figure 1: Elaborated descriptions.

The parameters of the information state would then be modeled by (32).

(32)   The experience was just sad.
      a.   CQ: {p = E was sad; ap = E was the saddest of my life; bp = E was extremely sad}
      b. $\geq_s$ = {< ap, p >, < bp, p >, < ap, ap >, < bp, bp >, < p, p >}

If one of the distinguishing features of ineffability *just* in this view is the set of alternatives over which it quantifies (alternatives organized on a scale of elaborateness), we must ask how this set is generated. We follow Beltrama in the claim that ineffability *just* offers the interlocutors a kind of "shortcut" in the conversational game, in that it provides a path to the most complete answer to the QUD. The idea here in the case of both emphatic and ineffability *just* is that the q-alternatives are generated as possible answers to the QUD (Roberts 2012). *Just* eliminates alternatives that would otherwise remain available following assertion of the prejacent.

For utterances that contain ineffability *just* as found in our corpus, we suggest that the relevant alternative set and contextually salient ranking are triggered by predicates of subjective evaluation like *sad* or *odd*. Following Lasersohn's (2005) account of "predicates of personal taste", we will understand *sad* to contain an individual index on which the truth value of the

assertion depends, rendering the asserted meaning effectively: "the experience was sad for me". In this case, the QUD being addressed is "How was the experience (for you)?", and q-alternatives are generated of the form "The experience was X (for me)". These alternatives include those in which X can be substituted with "happy" or "fine" (eliminated by *sad*), but also more elaborated subjective evaluations that provide additional texture and detail. The addition of ineffability *just* will serve to eliminate alternatives more elaborate than the prejacent, representing the "shortcut" to the discursive goal of answering the QUD.

A reviewer asks an interesting question concerning the type of predicates which are preceded by ineffability *just*. As the StoryListening Corpus is focused on the narratives of those who lost loved ones and patients during the height of the COVID-19 pandemic, it is perhaps unsurprising that the majority of the experiences feature predicates describing emotional reactions (*sad, difficult, hard*). We know that other terms which are less concerned with emotion (but equally subjective) occur in the corpus as well (e.g. *odd* (n = 5), *crazy* (n = 2)). In other types of narratives, ineffability *just* seems to occur with other subjective or evaluative predicates that describe physical or psychological perceptions. For instance, ineffability *just* occurs frequently in transcripts of patients' discussions of their unexplained pain symptoms with general practitioners as analyzed in Ring et al. (2004:3): "You know there's something just not right. There's something definitely there.". We similarly find a number of examples in patients' narratives of living with anxiety disorder, discussed in Woodgate et al. (2020: 10), "…you feel like it hurts your heart, like it fully, like, aches and it just, it just hurts". Future research may well permit a rich characterization of all of the contexts in which ineffability *just* appears, but at this point it seems clear that speakers are often effortfully externalizing an internal mental state (including, but not limited to, emotion).[10]

Returning to the semantics of *just*, a second core distinction between emphatic and ineffability *just* lies in their denotation. We claim here that ineffability *just* excludes propositions more elaborate than the prejacent not because they are false (as in the case of Coppock and Beaver's (2014) original formulation of the denotation for exclusive operators), and not because they aren't assertion-worthy (as in Beltrama's denotation for emphatic exclusives), but because they aren't as complete. That is, the prejacent represents the most complete response to the CQ in the sense that it rules in the largest possible unique cell in the partition (as represented in **Figure 1**), and any more elaborated response would be less complete, in the sense that it would be less inclusive.[11]

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[10] See also Manetta et al. (in prep) for a discussion of ineffability *just* in participants' narration of their experiences during clinical trials using Psychedelic Assisted Therapy (PAT) to treat Major Depressive Disorder associated with terminal cancer.

[11] A reviewer asks whether by this definition a response like "it was emotional" would be even more complete. While it might indeed be more complete (ruling in all possible cells represented in Figure 1) it would also be significantly

(33)   Ineffability *just*
        $[[EE]]_s = \lambda p: MIN^{EE}_s (p). MAX^{EE}_s (p)$
        $MIN^{EE}_s = \lambda p. \exists q \in CQ_S [Complete(q) \wedge q \geq_s p]$
        $MAX^{EE}_s = \lambda p. \forall q, q \in CQ_S [Complete(q) \rightarrow p \geq_s q]$

In the case of an utterance like "it was just sad", the functions in the denotation for ineffability *just* in (33) take as an argument a proposition p and presuppose that there is a proposition as elaborate as "it was sad" that is a complete description of the state of affairs (MIN^{EE}), and assert that no more elaborated proposition than "it was sad" is as complete of a description in S (MAX^{EE}).

As Wiegand (2017) points out, emphatic exclusives generally convey the sense that further elaboration would be fruitless, as captured in the paraphrase: "The fish was gigantic, and that's all that can be said about that". Beltrama (2021) further reasons that for EEs our sense of resistance to elaboration stems from the fact that the prejacent is established to be the most complete contribution to the CQ that is possible (even when not logically extreme). In the case of ineffability *just,* we have the additional intuition that the description is complete because the speaker is finding it difficult to render it in more elaborate terms: "The experience was sad, and that is the most elaborate thing that can be said about it". Indeed, it should be noted that speakers sometimes continue to try to offer additional description (as in (1)–(2) above), though this is clearly effortful/challenging. We could imagine a similar discourse sequence in the case of other guises of *just* which are understood to have expressive content. For instance, consider emphatic *just* – what Beltrama calls the "resistance to elaboration" can be overcome in subsequent utterances if the speaker needs to continue trying to establish a case. (e.g. *The fish was just gigantic! It was the biggest fish I've ever caught. It was more than three feet long and nearly broke the rod*).[12] The core intuition is that at the moment of speaking, the prejacent is the most complete response to the CQ and in this use is inclusive of more elaborate alternatives. In what follows we will propose that ineffability *just* strengthens that sense of completeness even further through its expressive content.

4 Ineffability *just* as an expressive

Mixed expressives (McCready 2010; Gutzmann 2012; Beltrama and Lee 2015), or lexical items with both descriptive and expressive contributions, emerge as an object of interest following

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less informative and is not part of the alternative set over which *just* quantifies. In other words, in answering the CQ the speaker must choose an informative answer, and by (33) ineffability *just* rules out all alternatives to that answer that are more elaborate than what the speaker chose on the grounds that those alternatives (and not some other set of alternatives which do not entail the answer) rule in smaller unique cells of the partition.

[12] We thank a reviewer for bringing this question to our attention. The semantics/expressive meaning we are proposing for ineffability *just* pertain to the moment of speaking, but a coherent discourse could be one that goes on to effortfully elaborate further, even though that might be difficult for the speaker.

Potts' (2005; 2007) initial formalization of expressive content. The core idea is that a mixed expressive has two types: one type takes a descriptive argument and yields another descriptive type during semantic composition. The other type takes the descriptive argument and yields an expressive type in a separate dimension of meaning (Gutzmann 2012).

At the point at which a speaker uses ineffability *just* in the StoryListening Corpus, they are in a heightened emotional state due to the fact that they are recounting a deeply disturbing experience. They may be crying, on the verge of tears, or exhibiting other visible and audible signs of emotional distress. We propose that the expressive meaning conveyed by ineffability *just* is tied to the speaker's heightened emotional state at the time of utterance. Ineffability *just* combines with the prejacent and signals that the speaker is at a loss for a more suitable description for the experience than the prejacent because of its profound and extreme nature and thus their strong affective response. In what follows, we establish ineffability *just* as an expressive and elaborate on a formal characterization of its expressive content.

4.1 Characteristics of expressives

Potts (2007) presents a set of initial properties which characterize expressives: independence, non-displaceability, perspective dependence, descriptive ineffability, and immediacy. In this subsection we illustrate that the expressive contribution of ineffability *just* exhibits these properties as well.

Potts illustrates that expressive content is independent of descriptive content. For instance, you can assent to the descriptive content of an utterance separately from its expressive content.

(34)   A: That bastard Kresge is famous.
        Descriptive content: Kresge is famous
        Expressive content: Kresge is bad.
        B: True. (I agree to his fame and not necessarily to a negative opinion of him)

(35)   A: The experience was just sad.
        Descriptive content: The experience was sad; nothing more can be said about it.
        Expressive content: The speaker lacks words in the moment to describe the
        experience due to their emotional state.
        B: Yes, it was. (I agree that it was sad, I am not communicating that you/I too lack the
             ability to describe it at the moment)

Similarly, McCready (2010) points out that expressive meaning isn't available for truth-conditional semantic processes like denial.

(36)   A: That bastard Kresge is famous
        B: That's false/not true. (≠Kresge is not a bastard)

(37) A: The experience was just sad.

     B: That's false/not true. (≠Speaker A has the ability to more elaborately describe the experience right now)

A second core property of most expressives is non-displaceability, in that they tend to give us information about the state of affairs at the time of utterance, not the time of the reported event.

(38) Every time I pour wine the damn bottle drips. (Potts 2007: (12))

It might seem that this should mean that in all situations in which the speaker pours wine the bottle drips and the speaker is in a heightened emotional state. As Potts says, "that paraphrase is consistent with the speaker feeling no special expressive attitude in the context of utterance, but rather only in wine-pouring situations. That is not what we intuit, though. Rather, we infer from the speaker's use of *damn* that he is in a heightened emotional state right this minute" (Potts 2007: 6).

Similarly, ineffability *just* does not convey the speaker's inability to express themselves at the time of the events reported, but instead the speaker's inability to find words in the present utterance time, as in the constructed example in (37).

(39) Whenever I witnessed a patient dying from COVID, it was just difficult.

Potts claims that expressive content is evaluated from the speaker's perspective (though this can vary under certain conditions). In the StoryListening Corpus, ineffability *just* is certainly speaker-oriented. It signals a lack of ability to describe the event on the part of the participant, not their interlocutor (the doula).

In considering the contribution of expressives, Potts points out that speakers often have difficulty arriving at an articulate paraphrase for expressives in descriptive terms – he calls this descriptive ineffability. To illustrate this property for ineffability *just* in an informal way, we provided eight members of the Vermont Conversation Lab research team (non-linguists) with examples of ineffability *just* and asked them to give its definition or meaning. In response, they reported the following: "it is almost like an emphasis, emotional, more than just emotional, sort of like *simply* and *very* at the same time"; "it's got a grasping-at-words quality"; "like *um* but with emphasis". Potts attributes this tendency to "hem and haw" to the fact that the expressive content is non-propositional in nature. McCready (2010) extends this argument to the notion of translation between languages: she suggests that unlike at-issue content, which is translatable from any language L to language L', expressive or non-truth-conditional content may well not be translatable between one language and the next in a way that preserves meaning.[13]

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[13] Interestingly, a reviewer points out that the German translation equivalent of ineffability *just* would seem to be *einfach* (*nur*) (= "simply (only)"), as in "*Das war einfach nur traurig.*" (lit. "That was simply only sad.") and that emphatic *just* is also amenable to the same translation.

Interestingly, we encounter speakers uttering ineffability *just* in the immediate vicinity of other expressives, highlighting the emotional state of the speaker and the non-propositional nature of they content they convey. The participant speaking in (38) is a clinician describing their experience providing care during the height of the COVID pandemic.

(40)   Um, but that helped a lot *just-just-just* being able to vent and just get things out.
        And him and I would always address things and-and like [.] uh we would find a way to bring light and humor to it all. There will always be moments of *just* that [.] you know [.] big sigh and *just* that fuck [1] but, you know…. (Participant 17, 17:02)

Expressives, much like performative speech acts, exhibit a property Potts terms "immediacy" (Tsujimura 1978). Their very utterance serves to carry out the act of providing information on the speaker's emotional state. For this reason, a direct self-denial of the expressive content is infelicitous.

(41)   I promise that I will wash the dishes, #but I make no promises.

(42)   That bastard Kresge was late for work yesterday. (#But he's no bastard today, because today he was on time.) (Potts 2007: (13))

(43)   The experience was just… difficult, #but I can describe the experience more elaborately/#that is the least I can say about it.

In Potts' formal account, expressives serve to update the context itself; this is why their work is done by the very act of uttering them and cannot then be denied.

A final characteristic of expressives (mentioned above in 3.1) is that their impact is strengthened (not made redundant) by repetition.

(44)   Damn, I left the damn keys in the damn car! (Potts 2007: (34))

(45)   You never had experience with dementia. You never had experience with COVID. And here they are, like coming together. And it's *just* like, you know, you *just* feel like you *just* don't – it's all a crapshoot. You do not know what to do. You *just* totally don't know what to do. (Participant 34, 54:39)

In (43) the repeated use of ineffability *just* serves only to further emphasize the speaker's heightened emotional state and their inability to provide further description of the experiences under discussion. We frequently encounter repeated or clustered use of ineffability *just* in the StoryListening corpus, serving to amplify its expressive role.

4.2 Accounting for the expressive contribution of just

According to Potts' account, the contribution of expressives in general is to encode one individual's orientation toward another in moment of utterance. The denotation domains of expressives are mappings from one context tuple to another by altering the expressive setting c_ε.

We maintain here that the default context is one in which the state of affairs introduced by an utterance is inherently describable and the speaker succeeds in describing it adequately. This default grows out of the cooperative principle (Grice 1975), in the sense that the speaker is typically endeavoring to be both informative and truthful. We infer that the speaker is also typically <u>able</u> to be informative and truthful to the relevant degree (or else would be continually frustrated by the gap between their intent and the outcome). Talk concerned with profound or extreme experiences, such as those related in the pandemic-era bereavement narratives in the StoryListening corpus, may push speakers into a heightened emotional state. In this state, they may no longer be able to remain fully informative or fully truthful in the Gricean sense and can use an expressive to signal this to their interlocutor.

If this is on the right track, the expressive content of *just* would include an update of the context to indicate that the speaker is finding it challenging in the moment to describe or elaborate further. More formally, ineffability *just* is a function which takes the proposition introduced by the prejacent as its argument and adjusts the context c to a context c' in which the context judge c_J (by pragmatic default the speaker, see Lasersohn 2005) indicates that emotional distress causes them to struggle to describe the situation in terms more elaborate than the prejacent. Note that the context judge/individual index plays a formal role in both expressive content of ineffability *just* and in the predicates with which it is paired (e.g. *sad*) as discussed above in 3.4.

4.3 *Just* as a mixed expressive

McCready (2010) introduces an extension of Potts' logic and type system for supplementary conventional implicatures which is explicitly intended to handle mixed expressives. The idea is to capture the intuition that mixed expressives are singular semantic objects with a dual character as opposed to multiple, fully separate (or separable) entities. In the interests of space and parsimony we will not reproduce McCready's argumentation and logic in full here; suffice it to say that the upshot of McCready's extension is that predication can take place both in the at-issue and expressive dimensions.

In this framing, *just* will have two components to its denotation. The first component will be its descriptive contribution, in which it serves as an exclusive operator in the way analyzed in section 3. In this role, it takes the proposition denoted by the prejacent as its argument and asserts that no more elaborate proposition is a complete description in S. The second component is its expressive contribution, in which it takes the proposition denoted by the prejacent as its argument and asserts that the context judge c_J is struggling to describe the situation in terms more elaborate than the prejacent due to their heightened emotional state (we will use the English word *ineffable* in the denotation). The diamond separates the two dimensions of computation and indicates that the two terms it conjoins remain 'active' in the derivation.

(1) $[[just]] = \lambda p: MIN^{EE}_{S} (p). MAX^{EE}_{S} (p) \blacklozenge \lambda p.$ ineffable for c_J (p)

Note that this multidimensional account of ineffability *just* circumvents any need to ascribe certain components of meaning to separate morphemes or rely on some other decompositional system – the idea for which McCready advocates is that these expressions are truly mixed content bearers.

5 Summary and conclusions

In this article we identified a new surface manifestation of *just* in English – ineffability *just* – which we maintain has characteristics distinct from its many other guises. We show here that ineffability *just* arises in contexts in which the speaker intends to describe an extreme or profound experience and to exclude members of the set of alternative descriptions that are any more elaborate. In this sense it is akin to the emphatic exclusive (EE) operator (Beltrama 2021). But unlike emphatic *just*, ineffability *just* occurs when the speaker is in a heightened emotional state and as a result struggles to identify a prejacent that best fits that profound experience.

To capture these two aspects of the contribution of ineffability *just* to the discourse, we propose an account of ineffability *just* as a mixed expressive, building on the approach to expressives developed in Potts (2005; 2007) and as extended by McCready (2010). The end result is a formal modelling of the meaning of ineffability *just* in two dimensions, descriptive and expressive, which together deliver its overall force.

An important empirical contribution of this account is to bring a new guise of the emphatic exclusive to our attention – one that appears to serve a vital discursive function when used by speakers to mark the difficulties encountered in externalizing internal mental states. Our findings also affirm that the discrete guises of exclusive *just* can be understood to have a shared semantic core – one of exclusion of alternatives. The locus of differentiation among the various guises of this operator is the nature of the set of alternatives over which the operator quantifies and on what grounds alternatives are excluded.

This research also serves to diversify the inventory of lexical item types understood to include expressive content. This inventory has traditionally included things like exclamatives, epithets, adjectives, and honorifics, and is expanded here to exclusive operators. In proposing an account of ineffability *just* as a mixed expressive, our analysis attests to the effectiveness of a framework in which truth conditional and context-dependent meaning are computed in multiple dimensions but lodged in a single semantic object.

Finally, our work here has important methodological upshots for the study of semantics and pragmatics: specially-themed corpora of naturally occurring speech like the StoryListening corpus have the potential to provide novel insights about the ways in which meaning is produced and organized in context. Particularly revealing here are moments when speakers endeavor to narrate some of life's most extreme events.

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Competing interests

The authors have no competing interests to declare.

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