A comparison of expressives and miratives

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Abstract

There is a strong and vocal tradition of expressives being characterized as denoting conventional implicatures (Potts 2005, et seq.), and some have taken the category of expressives to include exclamation (Zimmermann 2007). But there's also a tradition of analyzing exclamations and other mirativity markers at the illocutionary or speech-act level (Sadock and Zwicky, 1985; Faller, 2002; Rett, 2011). In this paper, I address two related questions: What, if any, are the empirical differences between expressives and miratives? And what, if any, are the theoretical differences between conventional implicatures and illocutionary content? Ultimately, I initiate a turf war over expressives: I argue that while they were initially characterized as a subtype of conventional implicature, they are more naturally grouped with emotive, or illocutionary, content.

keywords: *expressives, exclamations, exclamatives, conventional implicatures, illocutionary content, mirativity, emotive markers*

1. Expressives: a background

The goal of this paper is to examine the phenomenon of expressives in the context of recent work on the semantics of 'emotive markers' (Rett 2019): morphemes or other strategies that indicate the speaker's attitude towards the salient proposition. I argue that, in a more nuanced typology of not-at-issue content that differentiates between descriptive and illocutionary not-at-issue content, expressives belong in a category with illocutionary-content-encoding emotive markers (like *alas*) rather than with descriptive-content-encoding appositives or other conventional implicatures. I'll begin by characterizing the phenomenon of expressives, and I'll then move in Section 2 to characterize the phenomenon of emotive markers.

1.1 Expressives empirically

According to Potts (2005, 2007) there are several types of expressives: expressive adjectives like *damn* (1); sentence particles (also *damn,* (2)); honorifics and anti-honorifics (3); and epithets and slurs like *bastard*.

1. Bush says they damn Republicans deserve public support.

2. Damn, I forgot my keys.

3. a. Ame -ga   huri -masi -ta.
      rain -NOM fall -HON -PST
      'It rained.' *and* 'The speaker honors the addressee.'   *Japanese*
   b. Sam -ga   warai -yagat   -ta.
      Sam -NOM laugh -ANTIHON -PST
      'Sam laughed.' *and* 'The speaker views Sam negatively.'   *Japanese*

Potts (2005) enumerates six defining characteristics of expressives. First, **independence**, or not-at-issueness: roughly, that the content contributed by expressives cannot be directly denied or negated. Second, **nondisplacability**: expressives predicate something about the utterance situation. Third, **perspective dependence**: expressive content is generally speaker-oriented,[1] with pragmatic extensions to others under the right conditions (Harris & Potts 2009). Fourth, **ineffability**: it is hard to perfectly paraphrase the content encoded in an expressive using descriptive or at-issue terms. Fifth, **immediacy**: expressives "achieve their intended act simply by being uttered". And finally **strengthening**: the repetition of an expressive results in strengthened emotive content, rather than redundancy.

Additionally, Davis & McCready (2016) observe that expressives remain speaker-oriented in questions, as demonstrated in (4).

4. Doitsu   -ga saigo -no biiru -o   non -da nda.
   who.ANTIHON -NOM last   -GEN beer -ACC drink -PST PRT

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[1] McCready (2010) and Davis & McCready (2016) characterize Japanese antihonorifics as in (3b) as expressives despite their subject orientation, so the claim that expressives are speaker-oriented is not entirely uncontentious.

"Which of you fuckers drank the last beer?"   *Japanese*

In (4), the anti-honorific is hearer-oriented, rather than speaker-oriented (or subject-oriented), which means that anti-honorifics in Japanese participate in "interrogative flip" (Tenny 2006), typically observed in evidentials.

1.2 Expressives theoretically

Potts (2005, et seq.) put expressives on the formal semantic map by arguing that they contribute or encode conventional implicatures, just like the oppositional component of the connective *but* and the contribution of appositives (5).

5.   a.   Jane went to UCLA but won the Fields Medal.
     b.   Jane, who went to UCLA, won the Fields Medal.

The connective *but* in (5a) operates on two semantic levels: its truth-conditional content is equivalent to the conjunction *and*, but it additionally contributes an oppositional meaning, indicating that the first conjunct (Jane's having gone to UCLA) is for whatever reason at odds with the second (her having won a Fields Medal). The appositive *who went to UCLA* in (5b) doesn't contribute any truth-conditional content.

Potts argued that both of these meanings -- the oppositional component of *but* and the entire meaning of the appositive -- contribute conventional implicature, as evidenced by the fact that they are non-cancellable, conventional, and non-backgrounding (three core properties of conventional implicatures). That the content is conventional just means that it's intrinsically associated with the form (as opposed to a conversational implicature, which is tied to the use of a form). That the content is non-backgrounding differentiates conventional implicatures from presuppositions, which are largely viewed as preconditions on the truth of a proposition. Both these properties -- conventionality and non-backgrounding -- are hallmarks of at-issue content as well. The third property, non-cancellability, is demonstrated in (6).

6.   a. It's not the case that Jane went to UCLA but won the Fields Medal.
     b. It's not the case that Jane, who went to UCLA, won the Fields Medal.

The sentences in (6) are negated versions of those in (5). In both cases, the negation cannot affect the conventional implicatures: in (6a) the negation targets the conjunction, but the oppositional association between the first and second conjunct remains (i.e. (6a) still communicates that there's something at odds between attending UCLA and winning the Fields Medal). In (6b) the appositive content escapes the matrix negation (i.e. the sentence still communicates that Jane went to UCLA).

Famously, Potts (2005) proposed a multi-dimensional semantics to account for conventional implicatures. In such a framework, a rule of semantic composition looks like this:

7. a. If σ is a descriptive type, then $<\sigma, \varepsilon>$ is an expressive type.
    b.

$$\beta : \alpha$$
$$\bullet$$
$$\alpha(\beta) : \epsilon$$
$$\alpha : \langle \sigma, \epsilon \rangle \quad \beta : \sigma$$
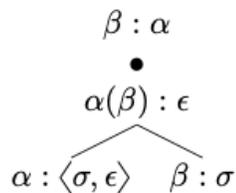
In this approach, each node can be associated with meaning at the descriptive level or meaning at the expressive level (or can be a function from one to the other). Matrix sentences denote a multi-dimensional meaning, with the descriptive content on one side of the colon and the expressive content on the other side.

There have been a number of problems raised with this account, I'll briefly mention a few of the most significant here. First, the account as it was originally proposed doesn't allow for the representation of mixed expressions, i.e. expressions that combine both descriptive and expressive content. As Frege observed, *cur* is such a word -- its descriptive content is 'dog' and its expressive content amounting to the same negative content as we see in *bastard* -- and this observation has been extended to the particulars of Potts' framework in McCready and Ogata 2007 and Zimmermann 2007.

Second, as argued in Geurts 2007, it's hard to see how the framework can be extended to account for syntactic effects on the truth-conditional status of the content of expressives, as illustrated in the difference between the sentences in (8).

8. a. That bastard Schmidt stole my car.

   b. Schmidt is a bastard (and he stole my car).

In (8a), *bastard* contributes expressive content; in (8b), it appears to contribute descriptive content, as negating or denying the sentence does in fact result in the negation or denial of Schmidt's status as a bastard.

Finally, as Gutzmann (2011) has argued, there are expressive modifiers -- words that are modifiers at the descriptive level but also encode some sort of expressive component -- which suggests it's false that expressives are only output types, as they're characterized in Potts' framework. Expressive modifiers will be discussed more in Section 2.1.

In response to these and other worries, Potts' (2005) multi-dimensional semantics has been supplemented by various authors who expand the type logic. McCready (2010) extends the type system to include 'shunting' types, for 'resource-sensitive' expressions like mixed expressives. Along similar lines, Gutzmann (2011, 2015) extends the type system to differentiate between 'pure expressive types' and 'hybrid expressive types', as in (9).

9. a. If σ is a descriptive type and τ is a (hybrid or pure) expressive type, then $<\sigma,\tau>$ is a hybrid expressive type.

   b. If σ and τ are (hybrid or pure) expressive types, then $<\sigma,\tau>$ is a pure expressive type.

   c.

$$\frac{\alpha(\beta) : \tau^\epsilon}{\alpha(\sigma^\epsilon, \chi^\epsilon) \quad \beta : \tau^\epsilon}$$

Despite these innovations, there remain some open issues in multi-dimensional semantics. Some are theory-internal, like constraining the domain of universal quantifiers with respect to expressivity (Gutzmann and McCready 2016). But some seem more empirically grounded, and it's these that I'll push on in the rest of the paper. Specifically, the characterization of expressives as conventional implicatures, and the corresponding equation of expressive content to that associated with e.g. appositives, incorrectly predicts that the two types of meanings are on par semantically, or at least that there are no systematic differences between the two that can't be explained by independent factors.

But there are several properties that expressives have that don't hold of e.g. appositives. Expressives have in common with non-expressive encoders of not-at-issue content the property of independence or not-at-issueness. And arguably both are speaker-oriented because appositives, too, represent the speaker's belief worlds. But Potts' other four observed properties of expressives -- non-displacability, ineffability, immediacy, strengthening -- do not hold of non-expressive encoders of not-at-issue content. Neither appositives nor NAI encoders like *but* are non-displaceable (i.e. they don't necessarily describe the utterance situation); ineffable (i.e. their contribution is not hard to paraphrase); immediate (i.e. they're not true by virtue of being uttered); nor do they exhibit strengthening (i.e. their repetition does not result in strengthened meaning instead of redundancy or ungrammaticality).

Murray (2010, 2014) and AnderBois et al. (2010, 2013) characterize appositives as introducing content that license presuppositions and anaphors, and are thereby better treated in a dynamic framework, rather than a multi-dimensional semantics. Which raises the question: is this true of expressives, as well? Is a dynamic framework better equipped to account for the systematic differences between expressives and (other) conventional implicatures, like those associated with appositives and words like *but*? In what follows I will argue that expressives are quite naturally treated on par with miratives and other 'emotive markers' (Rett 2019), which are well treated in the speech-act-level dynamic semantic formalism proposed in Farkas & Bruce (2010), similar in relevant ways to the formal system in Murray (2010, 2014). I unfortunately will not have time to address issues of anaphora, but hopefully the discussion here will provide a useful foundation for those questions to be discussed in the future.

2. Miratives: a background

The goal of this paper is to demonstrate that expressives have more in common with miratives and other emotive markers than they do with appositives, *but*, and other encoders of conventional implicatures. In this section, I'll describe the phenomenon of mirativity; in Section 3 I will draw on this discussion to argue for the empirical and theoretical parallels between miratives and expressives.

2.1 Miratives descriptively

I use the term 'mirative' as a label for any natural-language expression of exceeded expectation. The utterances in (10) -- a declarative sentence and a sentence exclamation in English -- form a minimal pair with respect to mirativity. Both of these utterances assert the proposition (as at-issue content) that Jane arrived on time; the exclamation in (10b) additionally expresses that the at-issue proposition has exceeded the speaker's expectation.

10.   a. Jane arrived on time.
      b. (Wow,) Jane arrived on time!

Two notes about this characterization of mirativity. First, I use the term 'exceeded expectation' to evoke the description of mirativity in DeLancey 2001 (p. 38): "No matter how high my expectations might have been, what I have just heard exceeded them." The term 'exceeded expectation' has been used to characterize mirativity in Merin & Nikolaeva (2008) and Rett (2011); I use it interchangeably with phrases like 'surprise' or 'violated expectation'.

There is interesting independent evidence that mirativity involves exceeded expectation: the communication of exceeded expectation, regardless of how it is manifested, is polysemous, and exclamations (and other mirative constructions) are polysemous in this same way. In particular, the statement or expression or non-linguistic indication that an expectation has been exceeded or violated can be flattering or insulting, depending on how one characterizes the relevant expectations (as appropriately high or inappropriately low). For instance, if I were to utter (11) to a student in my program, they might be flattered; this reaction is natural in a context in which the student has reason to believe that the faculty have realistic and well-informed expectations about their progress.

11. You did better on this test than the faculty expected you to.

In another context, my utterance of (11) might insult the student. This reaction is natural in a context in which the student believes their performance on the test was in line with their past performances, which suggests that the faculty had an artificially low expectation of their

performance on the test. Exclamations like the one in (10b) are polysemous in this same way, which bolsters the claim that they communicate exceeded expectation.

Second, I've characterized miratives as *expressing* exceeded expectation. This is in line with previous descriptions of exclamations (Sadock 1974, Kaplan 1997, Michaelis 2001, Castroviejo-Miró 2006) as a way of contrasting their content with descriptive content. I'll have more to say about the precise characteristics of mirative content in what follows, but for now I'll highlight that expressive content, in its traditional sense, is at least undeniable (or not-at-issue) and speaker-oriented. That the mirative component of exclamations is not deniable is illustrated in (12).

12. A: (Wow,) Those muffins are vegan!
    B: No, they're vegetarian.
    B': #No, you're not surprised/you knew that they were vegan.

Another traditional characteristic of expressive content is that it is, as a default, oriented to the speaker and the context of utterance (this is often called 'origo'). Rett & Murray (2013) argue that mirative evidentials can only be felicitously uttered when the speaker has recently learned of its content; elsewhere and previously, this property has been characterized as reflecting "novel information" (DeLancey 1997, 2001) or a "spontaneous reaction to a new, salient, often surprising event" (Aikhenvald 2004, 197). That mirative content is speaker-oriented by default is reflected in the fact that exclamations are unembeddable (13a) and cannot occur in questions (13b), which are hearer-oriented.[2]

13. a. #Mary said Jane arrived on time!
    b. *Where did Jane arrive on time!

Like other content that is by default speaker-oriented, miratives can come to be oriented to some other interlocutor via a general pragmatic process (Harris & Potts 2009, Rett 2019).

Just like expressives, there are a variety of ways mirativity marking can interact with at-issue or descriptive content (Rett 2012): there are independent miratives, which mark exclusively

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[2] I discuss the phenomenon of emotive markers in questions in more depth in Section 3.3.2.

mirativity; mixed-expression miratives, which mark mirativity as well as some descriptive content; and dependent miratives, which mark mirativity or descriptive content, depending on the context. I'll give quick examples of each below.

Exclamation intonation in English is a good example of an independent mirative; it always and only marks mirativity (Rett 2011, Rett & Sturman 2020). Other languages have morphologically encoded independent miratives, like Finnish -*pä* (Rett 2019). The data in (14) form a minimal pair with respect to mirativity just as those in (10) do.

14. a. Täällä on   paljon kukk-ia.
         here   be-3RD.SG a.lot   flowers-PRT.INDEF.PL
         'There are lots of flowers here.'
     b. Täällä-pä on   paljon kukk-ia.
         here-*pä*   be-3RD.SG a.lot   flowers-PRT.INDEF.PL
         'There are lots of flowers here.'   *Finnish* (Rett 2019)

Mixed-expression miratives include mirative conjunctions, exemplified for Russian in (15), and what have been referred to as 'expressive intensifiers,' exemplified for German in (16). These mirative markers encode mirativity as well as some descriptive content: in the case of mirative conjunctions, that descriptive content is conjunction, making them truth-conditionally equivalent to *and*; in the case of expressive intensifiers, that descriptive content is intensification, making them truth-conditionally equivalent to *very*.

15. On zabolel da i umer.
       he fell.ill CONJ PTCL died
     'He fell ill and died (I did not expect it).'   *Russian* (Malchukov 2004: 187)

16. Die Party war sau cool.
       the party was *sau* cool
     'The party was very cool (I can't believe how cool!)'.   *German* (Gutzmann & Turgay 2011)

Finally, dependent miratives polysemously encode mirativity and some other type of content, but the two meanings are conditioned by context. Mirative evidentials are the most well-studied exemplar of this category: they mark some type of indirect evidence in some contexts, and mirative evidence in direct-evidence contexts (Rett & Murray 2013).

17. Moto   jo-nu-e.
    motorcycle be-EVID-DECL
      speaker hears motor: 'It is apparently a motorcycle.'   *Tsafiki* (Dickinson 2000)
      speaker thought he heard a car, but sees a motorcycle coming: 'It's a motorcycle!'

The readings of some mirative evidentials are semantically conditioned in addition to being pragmatically conditioned. In some languages the mirative interpretation is licensed by the first person (Gitksan, Peterson 1999); by the imperfect (Hare, DeLancey 1997, 2001); by the present tense (Cheyenne, Murray 2010); or by individual-level predicates (Georgian, Korotkova 2012).

2.2 Miratives theoretically

There are, broadly speaking, three extant semantic accounts of mirativity. The first type treats mirativity -- specifically, exclamation intonation -- as a conventional implicature (Zanuttini & Portner 2003, Castroviejo-Miró 2006). Such treatments run into the same problems as conventional implicature treatments of expressives I mentioned in Section 1.2, namely: If expressives and miratives encode conventional implicatures, what accounts for the properties that expressives and miratives share to the exclusion of other conventional implicatures?

The second type of account of mirativity characterizes mirative markers as speech-act operators, or mirativity as illocutionary force (Faller 2002, Rett 2011). This predicts that mirative markers are unembeddable, which is a welcome prediction for English exclamation intonation, but not for many mirative evidentials, which are embeddable, even under their mirative interpretation.

The final type of semantic treatment of mirativity treats it as a type of not-at-issue dynamic update that is distinct from the Common Ground update associated with conventional

implicatures (Rett & Murray 2013, Rett 2019). This approach will be discussed in more detail in Section 4.

In sum, miratives, like expressives, contribute not-at-issue content. They are also often associated with the expression -- rather than description -- of content. In the next section, I will argue that miratives and expressives form a natural semantic class to the exclusion of (other types of) conventional implicature, and should thus receive a distinct treatment from it, contra Potts (2005) and other multi-dimensional treatments of expressives.

3. Motivating a unified analysis of miratives and expressives

3.1 Similar semantic characteristics

In Rett 2019, I argue that miratives are a subspecies of a larger class called 'emotive markers'. Emotive markers are mechanisms for encoding: a) the speaker's emotive attitude; b) towards some proposition made salient by the context of utterance in which they occur; c) in backgrounded, not-at-issue content. Examples of emotive markers that aren't miratives include the particle *alas* and the adverbs *fortunately* and *unfortunately*.

Emotive markers display all six of Potts' (2005) characteristics of expressives (see Rett 2019 for details). They display **independence/not-at-issueness** insofar as the content contributed by emotive markers cannot be directly denied or negated (Chernilovskaya et al. 2012; this is illustrated in (12)). They are **nondisplaceable**; emotive markers predicate something about the utterance situation, which is especially evident in the Recency Restriction on mirative evidentials detailed in Rett & Murray 2013. They exhibit **perspective dependence**, which means that emotive markers are generally speaker oriented, with pragmatic extensions to others under the right conditions. This is illustrated below in (18b) for *unfortunately* and in (19) for exclamation intonation; in each of these examples, the utterances are felicitous despite reflecting B's state of mind rather than A's.

18. *context: A is an LA Dodgers fan and a fan of Puig, B is a Detroit Tigers fan. A says:*
    a. Uh-oh, that bastard Puig is batting next.   *Pottsian expressive*

    b. Unfortunately, Puig is batting next. *emotive marker*

19. *context: A is B's parent and the one who hid the Easter eggs. A says:*
      Wow, there's an egg hidden under that tree! *exclamation*

Emotive markers are also **ineffable**, which means that they are hard to perfectly paraphrase using descriptive or at-issue terms. This is evident in a great deal of back-and-forth in the literature about what exactly exclamations do; as Chernilovskaya et al. (2012) say, the emotive attitude encoded in an exclamation includes, but is not limited to, surprise, amazement, and awe, "but their precise nature is not specified". Emotive markers also exhibit **immediacy**, meaning they achieve their intended act simply by being uttered. And, finally, they exhibit **strengthening**, which means that the repetition of an emotive marker results in strengthened emotive content, rather than redundancy. This property doesn't naturally extend to prosodically or syntactically encoded emotive markers, or morphological markers encoded in functional categories, but it checks out for lexicalized markers like the mirative adverbial in Mandarin (Wu 2008).

Recall from the discussion in Section 1.2 that several of these properties do *not* hold of appositives and the oppositional meaning of *but*, two constructions that I take to be canonical encoders of conventional implicature. Specifically, appositives and *but* are not non-displaceable or immediate, and they do not exhibit strengthening.

In Rett 2019 I argue that emotive markers encode a type of not-at-issue content distinct from non-expressive not-at-issue content (the kind encoded in e.g. appositives, *but*, and evidential adverbs), resulting in a three-way typology of semantic content, as in Figure 1. This typology takes for granted the distinction between at-issue and not-at-issue content discussed earlier -- the former can be directly denied or targeted by truth-conditional operators, while the latter cannot -- but makes a further distinction between descriptive not-at-issue content and illocutionary not-at-issue content.

SEMANTIC CONTENT

(descriptive) at-issue   not-at-issue
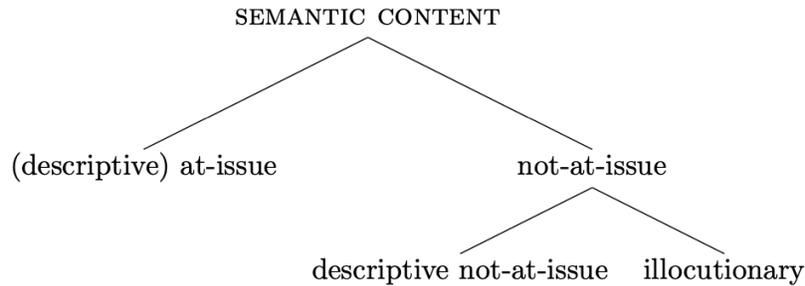
descriptive not-at-issue   illocutionary

Figure 1: content distinctions, Rett (2019)

Descriptive not-at-issue content amounts to what is said, a description of the world that can be true or false, but backgrounded rather than foregrounded in at-issue content. Illocutionary not-at-issue content, in contrast, pertains to how the speaker is using the utterance in context.[3] I present two main empirical motivations for this distinction in Rett 2019; I will briefly review them here.

3.2 Another similarity: Moore's Paradox

The content encoded in emotive markers is best treated as illocutionary content because it can result in Moore's Paradox (but descriptive not-at-issue content cannot). The standard case of Moore's Paradox is in (20).

20. #It's raining, but I don't believe it's raining.

(20) is infelicitous, but it's been puzzling what the source of this infelicity is, given that there is no overt claim amounting to "I believe that it's raining" in the first conjunct. An appealing explanation of Moore's Paradox (Searle 1969: 65) is that it results when the speaker denies the content of a sincerity condition on their utterance; Searle assumed that the sincerity condition of a declarative sentence with content p was 'speaker believes that p'.

In her work on Cheyenne mirative evidentials, Murray (2010) observed that when a speaker denies content encoded in a mirative marker, it feels like Moore's Paradox, but when a speaker

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[3] Kaplan (1997), as usual, says it best: "A descriptive is an expression which describes something which either is or is not the case… [A]n expressive… expresses or displays something which either is or is not the case."

denies content encoded in a non-expressive encoder of not-at-issue content, like an evidential, it is judged to be more like a contradiction.[4]

A more reliable diagnostic for Moore's Paradox provides clearer judgments. Moore's Paradox is suspended in suppositional or conditional contexts (Yalcin 2007). The sentences in (21), versions of (20) embedded under *suppose* and in the antecedent of a conditional, are no longer infelicitous.

(21) a. Suppose it is raining, but I do not believe that it is raining.
    b. If it is raining but I don't believe it, then there is something I do not believe.

And, consistent with Murray (2010), the content encoded in emotive markers is suspended under *suppose* as well (22b). But other types of not-at-issue content, like the content encoded in evidential adverbs, it is not (22a).

(22) a. #Suppose that, allegedly, Jane lost the race, but that no one alleged that she did.
    b. Suppose that, alas, Jane lost the race, but that I'm not disappointed she did.

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[4] Cheyenne speakers reported a difference between the unacceptability of the denial of evidential (i) and mirative (ii) content, even as it was encoded in the same morpheme (the mirative evidential). The evidential version was judged to be contradiction-like (marked #⊥), whereas the mirative version was judged to be infelicitous in the same way as a standard Moore's Paradox case.

(i) #⊥É-x-hooʹkȯhó-**neho**   naa oha hováneeʹe é-sáa-nė-hé-he-∅.

   3-REM.PST-rain-NAR.SG.INAN but   nobody   3-NEG-that-say-MOD$_A$-DIR
   Intended: 'It rained long ago, it is told, but nobody said that.'

(ii) #É-hooʹkȯhó-**neho**.   Ná-nėšė-héneʹena-∅   tsé-toʹ-sė-hešė-hooʹkoho.

   3-rain-NAR.SG.INAN 1-continue-know.s.t.-DIR CNJ-going.to-how-rain
   Intended: 'It's raining! ... #I *knew* it was going to rain.'

To the extent that English speakers recognize this difference, I've found that the English data pattern the same way.
(iii) a. #⊥Allegedly, Jane lost the race, but no one alleged she did.
    b. #   Alas, Jane lost the race, but I'm not disappointed she did.

But what about expressives? Insofar as the content of expressives can be paraphrased in at-issue content, expressives seem to pattern with respect to Moore's Paradox like emotive markers (as in (22b)), not like other encoders of not-at-issue content (as in (22a)).

(23) a. Suppose that that damn Jane lost the race, but that I really like Jane.
   b. Suppose that that cur Fido lost the race, but that I really like Fido.

So not-at-issue content seems to differ in terms of what happens when you deny it in a subsequent conjunct. The content encoded in emotive markers and expressives seems to behave like the belief ascription associated with declarative mood: denying it in matrix contexts results in infelicity, but denying it in suppositional contexts does not. In contrast, the content encoded in other types of not-at-issue content -- Rett (2019) tests evidential adverbials and utterance modifiers like *frankly* -- behaves differently. Denying it in matrix contexts may seem more like a contradiction to some speakers; regardless, denying it in suppositional contexts does not result in felicity (as demonstrated in (22a)).

3.3 Another similarity: scope-taking

Non-expressive not-at-issue encoders can vary in their scope when they are embedded, and in their orientation when they occur in questions. But emotive markers and expressives pattern the same in that they necessarily scope locally, and they remain speaker-oriented in questions.

There is a complication here in the comparison of expressives and emotive markers: emotive markers (e.g. *alas*, exclamation intonation) range over propositions (Rett 2019), while expressives (e.g. *bastard, cur*) tend to range over individuals. I'll come back to this in Section 4.5. But there are some Pottsian expressives, like *damn*, that can range over both individuals or propositions, so I focus on *damn* here for the discussion.

3.3.1 Scope-taking with modal elements

The way non-expressive encoders of not-at-issue content scope with modal elements varies. I focus on evidential adverbs here as a canonical non-expressive NAI encoder; see Rett (2019) for a broader discussion. The sentences in (24) with evidential adverbs are synonymous: in both cases,

the adverb takes scope over the entire conditional (not just the antecedent), regardless of its syntactic position.

24. a.   Apparently, if the mayor is convicted, the city will lose its federal funding.
     b.   If, apparently, the mayor is convicted, the city will lose its federal funding.

This point is easier to see in (25), where the conditional as a whole -- but not the antecedent -- involves first-hand information, generally incompatible with indirect evidential adverbs.

25. a.   #Apparently, if the mayor is convicted, I will run for office.
     b.   #If, apparently, the mayor is convicted, I will run for office.

That (25b) is infelicitous, just as (25a) is, shows that evidential adverbs can't scope locally in the antecedent of a conditional, even if they're embedded there.

We see the same scope-taking when evidential adverbs interact with modals. The sentence in (26) cannot mean 'It's possible that it's reportedly raining,' regardless of where the evidential adverb is positioned. Evidential adverbs, as non-expressive NAI encoders, must take wide scope.

26. It's possible that it's raining, reportedly.

In contrast, miratives can and must scope locally in their syntactic environment, i.e., the two sentences in (27) are not synonymous.

27. a.   Alas, if the mayor is convicted, the city will lose its federal funding.
     b.   If, alas, the mayor is convicted, the city will lose its federal funding.

As before, we can test the difference between scope over the antecedent and scope over the conditional as a whole by making the consequent incompatible with the semantics of the marker in question. In the case of *alas*, that means a consequent (and thus a conditional) that isn't disappointing.

28. a.   #Alas, if the mayor is convicted, at least we will get a better one.

b.   If, alas, the mayor is convicted, at least we will get a better one.

In (28a), *alas* takes local scope, which means that in its sentence-initial position it ranges over the entire conditional. It also takes local scope in (28b), but because in this sentence *alas* is embedded in the antecedent, it can (and must) range only over the antecedent.

The same facts bear out with other modals; the sentence in (29), in contrast with that in (26), can mean 'It's possible that it's unfortunately raining,' as well as 'It's unfortunately possible that it's raining'. This sentence-final position is syntactically ambiguous with respect to whether the prejacent of *unfortunately* is the embedded or matrix sentence.

29. It's possible that it's raining, unfortunately.

The question in this paper, then, is what happens with expressives. Insofar as expressives can range over propositions, they pattern with emotive markers in their scope-taking, rather than with non-expressive NAI encoders. (30) is similar to (28) in that the consequent and thus the conditional as a whole involves content that is incompatible with the expression encoded in *damn*. This clash renders the sentence in (30a) unacceptable, but (30b) remains acceptable because the expressive can (and must) scope locally over the antecedent.

30. a. #Damn(it), if the mayor is convicted, at least we will get a better one.
    b.   If, damn(it), the mayor is convicted, at least we will get a better one.

Expressives also pattern with emotive markers (29) but not evidential adverbs (26) in their ability to scope over either the matrix proposition or the prejacent when it is sentence final.

31. a. Damn(it), it's possible that it's raining.
    b. It's possible that it's raining, damn(it).

The generalization here is clear: emotive markers and expressives scope locally, whereas non-expressive NAI encoders vary in their scope-taking: evidential adverbs, for example, necessarily take wide scope.

3.3.2 Orientation in questions

Non-expressive NAI encoders vary in how they are oriented in questions, but here again expressives and emotive markers pattern the same: they remain speaker-oriented regardless of the mood of the construction they occur in.

Evidential adverbs and utterance modifiers, two types of non-expressive NAI encoders, can only occur in questions sentence-finally (Giorgi 2010, Woods 2014). Two evidential adverbs in questions are illustrated in (32).

32. a. Who was responsible for the computer hack, allegedly?
    b. How much does the dean make, reportedly?

In these constructions, evidential adverbs range over the questions themselves, and they orient to the hearer rather than the speaker (a phenomenon called 'interrogative flip'). (32a) is paraphrasable as 'Tell me who was responsible, according to the allegations you've heard' and (32b) as 'Tell me how much the dean makes, according to the reports you've received'.

In contrast, emotive markers have a restricted distribution in questions, but when they occur they range over single propositions associated with the question, and orient to the speaker.

Grammatically or prosodically encoded emotive markers, like English exclamation intonation or the Finnish -pä, are unacceptable in questions. This is most strikingly demonstrated by mirative evidentials, which are grammatical in questions under their evidential reading, but not their mirative meaning (Rett & Murray 2013).

33. a.   Mó=é-x-hóˊ tàhevá-hooˊo   Aénohe?

     y/n=3-REM.PST-win-NAR.3SG Hawk
     'Given the stories you heard, did Hawk win?'   *Cheyenne narrative evidential*

    b. %Mó=é-hóˊ tàhevá-hooˊo   Aénohe?

     y/n=3-win-MIR.3SG   Hawk

Intended: 'Given your surprise, did H win?'/'Did H really win?!'   *Cheyenne mirative*[5]

But lexically encoded emotive markers can occur in questions, to varying degrees. They are licensed in questions only when the question can be naturally associated with a single salient proposition: an existential presupposition, a highlighted alternative, or a speaker bias. These restrictions are illustrated in the contrast between (34), whose questions are not associated with single propositions, and (35), whose questions are.

34. a. *Alas/Unfortunately, who did Jane meet?
    b. ??Who did Jane meet, alas/unfortunately?

35. a. Alas, who got kicked out of the program?
    b. When did the doctor's office close, unfortunately?

In the questions in (35), the emotive markers range over this single salient proposition rather than the question itself, and they remain speaker-oriented. So in (35a) the salient proposition is the question's presupposition that someone got kicked out of the program, and in (35b) the salient proposition is that the doctor's office closed. Both utterances express the speaker's disappointment at those propositions.

The question is, then, how do expressives behave in questions? They pattern like emotive markers, rather than non-expressive NAI encoders, in that they remain speaker-oriented (cf. (4)) and target a single proposition instead of the question itself (Davis & McCready 2016).

36. a. Damn, who did Jane meet?
    b. Who did Jane meet, damn(it)?[6]

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[5] Murray uses '%' to indicate that the question is unacceptable under the intended (i.e. mirative) reading.

[6] There is some lexical variation with respect to what is acceptable where, in both the class of emotive markers and expressives. Rett (2019) addresses differences between the synonymous *unfortunately* and *alas*, and there are differences between *alas* and *damn* as well. In particular, *damn* is unacceptable sentence-finally to me. I have no account of these lexical differences, but the nature of their variation within and outside of English suggests that it doesn't require a systematic explanation.

(36a) is interpreted as meaning 'Damn, Jane seems to have met someone, who was it?' rather than 'Tell me who Jane met, given that you're upset about it.'

To summarize this section, then, all encoders of not-at-issue content exhibit independence, or can't be directly denied in conversation. But expressives and emotives form a natural subclass of NAI encoders that are non-displaceable, ineffable, immediate, and strengthening.

Drawing on discussion in Rett 2019, it seems as though these arguably lexical semantic properties are associated with some broader semantic behavior, also suggesting that expressives and emotive markers form a natural subclass of NAI encoders. Expressives and emotive markers, but not other NAI encoders, can result in Moore's Paradoxical effects when their content is denied. Expressives and emotive markers, but not necessarily other NAI encoders, must scope locally. And expressives and emotive markers, but not other NAI encoders, remain speaker-oriented in questions, where they must range over a single salient proposition (rather than the question itself).

The goal of Rett 2019 is to explain these differences between emotive markers and other NAI encoders by giving them distinct semantic treatments. In the next section, I will briefly review this proposal, and then argue that that treatment of emotive markers can and should be extended to expressives, which means treating them distinctly from encoders of conventional implicatures like appositives and *but*.

4. A unified analysis of expressives and emotive markers

Recall from Figure 1 that I use the term 'illocutionary content' to describe not-at-issue meaning pertaining to how the speaker is using the utterance in the context. Because this content behaves, in the context of Moore's Paradox, on par with the sincerity conditions associated with declarative mood, I model both -- illocutionary content and sincerity conditions -- using Gunlogson's (2001) Discourse Commitments. I argue that emotive markers behave the way they do because they encode illocutionary content, and thereby restrict a speaker's Discourse Commitments, rather than the Common Ground. It's in this way that illocutionary content differs formally from descriptive content, be it at-issue or not-at-issue.

4.1 A formal foundation

The analysis in Rett (2019) crucially involves subsentential dynamic semantic update, and requires some semantic representation of salience, illocutionary mood, the Common Ground, and participants' Discourse Commitments. That account adapts the specific formalism in Farkas & Bruce (2010); in Section 4.5 I argue that the extension to expressives would perhaps be more natural in an adaptation of Murray's (2010, 2014) framework, which shares a lot of properties with Farkas & Bruce's.

Farkas & Bruce's (2010) model of a discourse structure K includes four elements:
1. the **Common Ground** (CG), the set of propositions believed to be true by all the discourse participants (for the purpose of the conversation);
2. sets of **Discourse Commitments** (DC): for each participant x, the set of propositions x has publicly committed to during the conversation;
3. the **Table** T, modeling discourse salience;
4. the **projection set** (ps), the set of beliefs being considered for addition into the CG.

Farkas & Bruce adopt their treatment of illocutionary mood from Krifka (2001), but they do not differentiate between at-issue and not-at-issue content. I borrow from Murray (2010, 2014) to do this (in lines (37)-iv and (38)-iv)).

37. *Declarative operator* (**D**), for sentences S_p with at-issue content p and not-at-issue content q:
    $\mathbf{D}(S_p, a, K_i) = K_o$ such that
    (i) $DC_{a,o} = DC_{a,i} \cup \{p\}$
    (ii) $T_o = \text{push}(\langle S_p; \{p\}\rangle, T_i)$
    (iii) $ps_o = ps_i \cup \{p\}$
    (iv) $CG_o = CG_i \cup \{q\}$

38. Allegedly, Jane won the race.   *results in the output discourse structure K_o such that:*
    (i) $DC_{a,o} = DC_{a,i} \cup \{\text{Jane won the race}\}$
    (ii) $T_o = \text{push}(\langle S_p; \{\text{Jane won the race}\}\rangle, T_i)$

(iii) $ps_o = ps_i \,\overline{\cup}\, \{\text{Jane won the race}\}$

(iv) $CG_o = CG_i \cup \{\text{It is alleged that Jane won the race}\}$

(37) defines the semantics of the declarative mood marker **D**, (38) exemplifies it. In (38)-i, the at-issue content of the sentence is added to the speaker's (author a) Discourse Commitment set. In (38)-ii, the at-issue content of the sentence (plus its syntactic structure S_p) is pushed to the top of the stack. In (38)-iii the at-issue content is added to the projection set (using $\overline{\cup}$, which eliminates all inconsistent propositions in the union operation), so that it will be considered by a's interlocutors for admission into the CG. Finally in (38)-iv the not-at-issue content in the sentence, encoded in the evidential adverbial *allegedly*, directly updates the CG. In this family of theory, the difference between admission to the ps and admission to the CG explains the difference in deniability between at-issue and not-at-issue content.

4.2 Sincerity conditions in an update semantics

The claim in Rett (2019) is that illocutionary content effectively restricts the sincerity conditions of an utterance. It is identical in spirit, but not in formal detail, to the proposal made in Searle & Vanderveken 1985 for *alas*. Unlike Searle & Vanderveken, the account co-opts Gunlogson's (2001) notion of Discourse Commitments to model sincerity conditions.

Discourse Commitment sets were originally proposed to account for speaker bias in rising declaratives, like *That's a persimmon?* The idea is that these utterances are semantically polar questions, but differ from some other polar questions in representing the speaker's bias that the answer is yes. (Farkas & Roelofsen 2017 extend the account to other types of biased constructions.) They were also originally characterized in terms of the speaker's beliefs, and "public in the sense that the participant is mutually recognized as committed to them" (Gunlogson 2001:42). The original definition is in (39).

39. **Gunlogson's Discourse Commitments**

Let DC_a and DC_b be sets of propositions representing the public beliefs of a and b respectively, with respect to a discourse in which a and b are the participants, where:

a. p is a public belief of a iff 'a believes p' is a mutual belief of a and b.

b. p is a public belief of b iff 'b believes p' is a mutual belief of a and b.

Rett (2019) treats public commitments as a proxy for belief for the purpose of modeling (sincere) conversation (see also 'BDI' in Asher & Lascarides 2008, and Portner 2016 for discussion). This means that the Discourse Commitment restriction of the declarative mood operator, (37)-i, models the sincerity conditions on assertion. But that account needs to generalize Discourse Commitments to involve propositional attitudes other than belief in order to model the content of emotive markers (see also Portner 2006, Rudin 2018).

40. **Flavored Discourse Commitments**

    Let DC_a be a set of pairs representing the public commitments of a with respect to a discourse in which a and b are the participants, where:
    a. ⟨believes, p⟩ is a public commitment of a iff 'a believes p' is a mutual belief of a and b;
    b. ⟨is-disappointed, p⟩ is a public commitment of a iff 'a is disappointed that p' is a mutual belief of a and b;
    c. ⟨is-surprised, p⟩ is a public commitment of a iff 'a is surprised that p' is a mutual belief of a and b.
    d. ⟨is-angry, p⟩ is a public commitment of a iff 'a is angry that p' is a mutual belief of a and b.

The propositional attitudes that comprise possible ordered pairs in speakers' Discourse Commitment sets are lexically restricted by the language's inventory of emotive markers.

Rett (2019) reformulates the semantics of the sincerity condition on assertion accordingly.

41. *Declarative operator* (**D**), for sentences S_p with at-issue content p and not-at-issue content q:
    $\mathbf{D}(S_p, a, K_i) = K_o$ such that
    (i) $DC_{a,o} = DC_{a,i} \cup \{\langle\text{believes}, p\rangle\}$
    (ii) $T_o = \text{push}(\langle S_p; \{p\}\rangle, T_i)$
    (iii) $ps_o = ps_i \cup \{p\}$
    (iv) $CG_o = CG_i \cup \{q\}$

This entry differs from (37) in that the addition to the Discourse Commitment set modeled in (i) is an ordered pair.

4.3 A semantics for illocutionary content

Rett (2019) provides a semantic account of *alas* in this framework; a semantics for exclamation intonation in this framework can be found in Rett & Sturman (2020). Below, I provide a straightforward extension of both these accounts to the expressive *damn*, as it ranges over propositions. The account -- with the exception of the lexically specified emotive attitude -- is general not just to all expressives that range over propositions, but all emotive markers that range over propositions. In Section 4.5 I discuss extending this analysis to mixed expressives and those that range over individuals.

42. *damn* (**Damn**), for clauses C with content p: **Damn**$(C, a, K_i) = (C, a, K_o)$ such that
    (i) $DC_{a,o} = DC_{a,i} \cup \{\langle\text{is-angry}, p\rangle\}$
    (ii) $T_o = \text{push}(\langle S_P; \{p\}\rangle, T_i)$

The expressive *damn* can be applied to any clause. When it is applied to a matrix sentence, as it is in *Damn, Jane lost the race*, the result (after the contribution of declarative mood) is as in (43).

43. ⟦Damn, Jane lost the race⟧ = $\mathbf{D}(\mathbf{Damn}(S, a, K_i)) = K_o$ such that
    (i) $DC_{a,o} = DC_{a,i} \cup \{\langle\text{believes, Jane lost the race}\rangle\}$
    (ii) $T_o = \text{push}(\langle S_P; \{\text{Jane lost the race}\}\rangle, T_i)$
    (iii) $ps_o = ps_i \cup \{\text{Jane lost the race}\}$
    (iv) $DC_{a,o} = DC_{a,i} \cup \{\langle\text{is-angry, Jane lost the race}\rangle\}$

(43)-i is contributed by the declarative mood **D**; this is the representation of the sincerity condition on assertions that p that the speaker believes that p. (43)-ii is, in simple-clause utterances like these, redundantly contributed by both the declarative mood and the expressive. (Section 4.4 discusses expressives in embedded contexts, which do not share this redundancy.) (43)-ii is a salience tracker, it designates the at-issue content p as the most salient in the context of utterance by pushing p to the top of the stack. (43)-iii, also contributed by the declarative mood marker, models the act of assertion: it adds the at-issue content p to the projection set so it can be considered for admission into the Common Ground. Finally, (43)-iv models the main contribution of the expressive: it adds the ordered pair ⟨is-angry, p⟩ to the speaker's Discourse

Commitment set, representing their public commitment that they are angry that Jane lost the race.

In this account, expressives and emotive markers differ from illocutionary mood (e.g. (41)) in that they do not update the projection set (i.e. they're not assertoric on their own); they update the DC set with a propositional attitude other than belief; and they do not change the type of an input, and so cannot serve as a mood marker on their own. Expressives and emotive markers differ from non-expressive encoders of not-at-issue content in that they do not update the Common Ground, at least initially;[7] they encode (speaker-oriented) propositional attitudes; and they range over the most salient propositions associated with a clause. It's this latter difference that is reflected in their scope-taking abilities, which I turn to now.

4.4 Expressives and emotive markers in questions and embedded contexts

Rett (2019) provides an explicit discussion of how the definition in (42) applies to questions. Expressives and emotive markers contribute their own restriction to the speaker's DC set which, in the case of embedded clauses, requires a sub-sentential dynamic update.

44. $\llbracket$damnit t_i lost the race$\rrbracket$ = $\mathbf{Damn}(S_1, a, K_i)$ = (S_1, a, K_{o1}) such that
    (i) $DC_{a,o1} = DC_{a,i} \cup \{\langle$is-angry, Jane lost the race$\rangle\}$
    (ii) $T_{o1} =$ push($\langle S_1;$ {Jane lost the race}$\rangle$, T_i)

45. $\llbracket$Jane, who, damnit, lost the race, was running for charity$\rrbracket$ = $\mathbf{D}(S_2, a, K_{o1})$ = K_{o2} such that
    (i) $DC_{a,o2} = \{DC_{a,i} \cup \{$is-angry, Jane lost the race$\rangle\} \cup \{\langle$believes, J was running for charity$\rangle\}$
    (ii) $T_{o2} =$ push($\langle S_2;$ {Jane was running for charity}$\rangle$, (push($\langle S_1;$ {Jane lost the race}$\rangle$, T_i)))
    (iii) $ps_o = ps_i \cup$ {Jane was running for charity}
    (iv) $CG_o = CG_i \cup$ {Jane lost the race}

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[7] In this account, expressives and emotive markers update a speaker's DC set, rather than the Common Ground. But, crucially, there seems to be an indirect route for information to travel from speakers' DC sets to the Common Ground. We know this because presuppositions in conversations can be satisfied by information initially stored as a Discourse Commitment; in Gunlogson's original example, a context in which A utters *That's a persimmon?* can felicitously include an accusation by B that A thought the object in question was a persimmon. The same is true for the emotive content encoded in emotive markers and expressives, although the indirect route remains unspecified in Rett 2019.

While the proposition that Jane lost the race is pushed to the top of the stack in the update for the appositive clause, it is no longer at the top after the utterance of the matrix sentence, as is evident in (45)-ii. So this is a case where the stack operations of the expressive and the declarative mood are not redundant, and the propositions each range over is accordingly affected.

This subsentential dynamic update is also useful for the modal and conditional data presented in Section 3.3.1, as illustrated in (46) and (47).

46. $[\![$it's raining damnit$]\!]$ = $\mathbf{Damn}(S_1,\, a,\, K_i)$ = $(S_1,\, a,\, K_{o1})$ such that

    (i) $DC_{a,o1} = DC_{a,i} \cup \{\langle$is-angry, It's raining$\rangle\}$

    (ii) $T_{o1} = $ push$(\langle S_i;\, \{$It's raining$\}\rangle,\, T_i)$

47. $[\![$It's possible that it's raining, damnit$]\!]$ = $\mathbf{D}(S_2,\, a,\, K_{o1})$ = K_{o2} such that

    (i) $DC_{a,o2} = \{DC_{a,i} \cup \{\langle$is-angry, It's raining$\rangle\}\} \cup \{\langle$believes, It's possible that it's raining$\rangle\}$

    (ii) $T_{o2} = $ push$(\langle S_2;\, \{$It's possible that it's raining$\}\rangle,\, ($push$(\langle S_1;\, \{$It's raining$\}\rangle,\, T_i)))$

    (iii) $ps_o = ps_i \,\overline{\cup}\, \{$It's possible that it's raining$\}$

    (iv) $CG_o = CG_i$

In (47), the speaker's DC set is updated first with the ordered pair ⟨is-angry, It's raining⟩ and then with ⟨believes, It's possible that it's raining⟩, the result of the subsentential dynamic update followed by the matrix dynamic update. The only at-issue content is that targeted by the declarative mood operator, so *It's possible that it's raining* is added to the projection set in (47)-iii, while nothing is added directly to the Common Ground in (47)-iv because the sentence encodes no non-expressive NAI content.

4.5 Individual-modifying and mixed expressives

The account presented here has plenty of flexibility to account for mixed expressives, i.e. words or expressions that simultaneously encode illocutionary and descriptive content.

48. That cur Fido lost the race.

In theory, *cur* lexically encodes meaning in two different components of Farkas & Bruce's (2010) context *K:* 1) the at-issue content, which plugs into several places, including the projection set *ps*, the table *T*, and the DC set. This all happens as the result of the declarative mood marker **D**, which operates on *p* and *q*, the at-issue and not-at-issue descriptive content of the sentence, respectively. And 2) the illocutionary content, which plugs into a single place, namely a(n additional) DC set update. Note that, while individual-modifying expressives like *bastard* and *cur* modify individuals, they nevertheless contribute propositional, emotive content at the illocutionary level.

But the Farkas & Bruce (2010) framework doesn't manipulate sub-propositional elements like individuals or degrees, so there's no transparent way of modeling the at-issue content of an individual modifier like *cur* (or a degree modifier like Gutzmann and Turgay's (2011) expressive intensifiers).

This is a great reason to implement the dynamic illocutionary system in Murray (2014) rather than the one in Farkas & Bruce (2010). Murray's framework allows for the simultaneous manipulation of anything that natural language allows anaphora to, including propositions. It also innovated the distinction between (descriptive) (not-)at-issue content in terms of (non-)automatic Common Ground update, which I have imported into the Farkas & Bruce (2010) iteration used here. But it has yet to be supplemented with anything like Gunlogson's Discourse Commitment sets, so there's more formal work to be done to complete this dynamic, compositional account of expressives and other illocutionary content.

5. Conclusions

I've argued that while expressives, evidential adverbs, appositives, and miratives all clearly encode not-at-issue content, expressives and miratives (and emotive markers writ large) pattern quite closely together, to the exclusion of the other two, in their nondisplaceability, ineffability, immediacy, and strengthening properties. I've also argued that these characteristics are correlated with the other unique semantic behavior of both types of expressions: they can both

result in Moore's-Paradoxical effects, and, when ranging over propositions, they both must scope locally over single (salient) propositions, regardless of the construction.

Following the analysis of miratives and other 'emotive markers' in Rett 2019, I've thus argued that expressives should be treated as a subtype of illocutionary content, rather than a subtype of descriptive not-at-issue content (i.e. conventional implicature). This means that they modify the speaker's Discourse Commitments (initially), rather than directly modifying the Common Ground. I achieve this by 'flavoring' Gunlogson's (2001) Discourse Commitments with a (lexically constrained) variety of emotive attitudes in addition to belief. The Farkas & Bruce (2010) framework must also be supplemented with: a Murrayian formal differentiation between at-issue and descriptive not-at-issue content; subsentential dynamic update; and an explicit method of transitioning content from speakers' DC sets to the Common Ground, at some unspecified point in the conversation.

There are, as usual, a few unresolved issues here. There are perhaps uninteresting questions about what dictates the ability of emotive markers, expressives, evidential adverbs, and utterance modifiers to occur where (e.g. *Jane lost the race, alas/*damn*), although this account can explain, given the placement of an expressive or an emotive marker, what proposition it can range over in that configuration. Still, as observed by Geurts 2007 and illustrated in (8), there remain some other syntactic effects on the interpretation of expressives that this account does not explain.

Most importantly, the formal proposal here must be extended to expressives that range over individuals or degrees, although I've offered some theoretical desiderata and suggested that the dynamic framework in Murray (2014) could treat the data and innovations quite naturally. As a consequence, I've left unexplored the differences (if there are any) between expressives that can range over propositions and those that cannot.

Finally, there is some modest but intriguing room for cross-linguistic variation. I've argued that expressives and miratives have several properties in common to the exclusion of encoders of conventional implicatures, and that these properties are properties of illocutionary content, i.e. content that's initially recorded as Discourse Commitment updates, rather than Common Ground updates. But it's possible that languages could differ in terms of what sorts of

expressions they treat as intrinsically immediate and speaker-oriented, in other words in terms of the difference between expressive and non-expressive NAI encoders. This could explain what appears to be significant cross-linguistic differences in the behavior of evidentials (Faller 2002, Murray 2010). Specifically, a semantic element like a marker of direct evidence could be treated as expressive or non-expressive, depending on the language, and its semantic behavior would vary accordingly. This is, I think, an exciting avenue for future research and a great reason to focus on contributing to a typology of not-at-issue content.

References

Aikhenvald, A. (2004). *Evidentiality*. Oxford University Press.

AnderBois, S., Brasoveanu, A., and Henderson, R. (2010). Crossing the appositive/at-issue meaning boundary. In Li, N. and Lutz, D., editors, *Proceedings of SALT* 20, pages 328–346. CLC.

AnderBois, S., Brasoveanu, A., and Henderson, R. (2013). At-issue proposals and appositive impositions in discourse. *Journal of Semantics,* 32(1): 93-138.

Asher, N. and Lascarides, A. (2008). Commitments, beliefs and intentions in dialogue.

Castroviejo-Miro, E. (2006). *Wh-Exclamatives in Catalan*. PhD Thesis, Universitat de Barcelona, Barcelona.

Chernilovskaya, A., Condoravdi, C., and Lauer, S. (2012). On the discourse effect of wh-exclamatives. In Arnett, N. and Bennett, R. (eds.) *Proceedings of the 30th West Coast Conference on Formal Linguistics*. Cascadilla Press.

Davis, C. and McCready, E. (2016). Expressives in questions. In *Proceedings of SALT* 26, pages 1119–1138. CLC Publications.

DeLancey, S. (1997). Mirativity: the grammatical marking of unexpected information. *Linguistic Typology,* 1:33–52.

DeLancey, S. (2001). The mirative and evidentiality. *Journal of Pragmatics*, 33:369–382.

Dickinson, C. (2000). Mirativity in Tsafiki. *Studies in Language*, 24:379–422.

Faller, M. (2002). *Semantics and Pragmatics of Evidentials in Cuzco Quechua*. PhD Thesis, Stanford University.

Farkas, D. and Bruce, K. (2010). On reacting to assertions and polar questions. *Journal of Semantics*, 27:81–118.

Farkas, D. and Roelofsen, F. (2017). Division of labor in the interpretation of declaratives and interrogatives. *Journal of Semantics*, 34(2): 237-289.

Geurts, B. (2007). Really fucking brilliant. (Commentary on Christopher Potts, The expressive dimension). *Theoretical Linguistics*, 33:209–214.

Giorgi, A. (2010). *About the speaker: towards a syntax of indexicality*. Oxford University Press.

Gunlogson, C. (2001). True to Form: Rising and Falling Declaratives as Questions in English. Routledge.

Gutzmann, D. (2011). Expressive modifiers and mixed expressives. In *Empirical issues in Syntax and Semantics*, volume 8, pages 123–141.

Gutzmann, D. (2015). *Use-conditional meaning*. Oxford University Press.

Gutzmann, D. and McCready, E. (2016). Quantification with pejoratives. In Finkbeiner, R., Meibauer, J., and Wiese, H., editors, *Pejoration*, pages 75–102. John Benjamins.

Gutzmann, D. and Turgay, K. (2011). Some (in)definiteness effects of expressive intensifiers. Talk, *Moscow Syntax & Semantics* II.

Harris, J. and Potts, C. (2009). Perspective-shifting with appositives and expressives. *Linguistics & Philosophy*, 32:523–552.

Kaplan, D. (1997). The meaning of 'ouch' and 'oops'. Ms., UCLA.

Korotkova, N. (2012). The Georgian evidential perfect and how to analyze it. Ms., UCLA.

Krifka, M. (2001). Quantifying into question acts. *Natural Language Semantics*, 9:1–40.

Malchukov, A. (2004). Towards a semantic typology of adversative and contrast marking. *Journal of Semantics*, 21:177–198.

McCready, E. (2010). Varieties of conventional implicature. *Semantics and Pragmatics*, 3:1–58.

McCready, E. and Ogata, N. (2007). Evidentiality, modality and probability. *Linguistics and Philosophy*, 30:147–206.

Merin, A. and Nikolaeva, I. (2008). Exclamative as a universal speech act category: a case study in decision-theoretic semantics and typological implications. Ms., University of Konstanz and SOAS London University.

Michaelis, L. (2001). Exclamative constructions. In Haspelmath, M., editor, *Language typology and language universals: An international handbook*, volume 2, pages 1038–1050. De Gruyter.

Murray, S. (2010). *Evidentiality and the structure of speech acts*. PhD Thesis, Rutgers University.

Murray, S. (2011). A Hamblin semantics for evidentials. In Ito, S., Cormany, E., and Lutz, D., editors, *Proceedings of SALT* 19. CLC.

Murray, S. (2014). Varieties of update. *Semantics & Pragmatics*, 7:1–53.

Nikolaeva, I. (1999). The semantics of Northern Khandy evidentials. *Journal Societe Finno Ougrinne*, 88:131–159.

Peterson, T. (1999). *Epistemic Modality and Evidentiality in Gitksan at the Semantics-Pragmatics Interface*. PhD Thesis, The University of British Columbia.

Peterson, T. (2010). Examining the mirative and non-literal uses of evidentials. In Peterson, T. and Sauerland, U., editors, *Evidence from evidentiality*. University of British Columbia Working Papers in Linguistics.

Portner, P. (2006). Comments on Faller's paper. *Workshop on Philosophy and Linguistics at the University of Michigan.*

Portner, P. (2016). Commitment to priorities. In Fogel, D., Harris, D., and Moss, M., editors, *New work on speech acts*. Oxford University Press.

Potts, C. (2005). *The logic of conventional implicature*. Oxford University Press.

Potts, C. (2007). The expressive dimension. *Theoretical linguistics*, 33:165–197.

Rett, J. (2011). Exclamatives, degrees and speech acts. *Linguistics and Philosophy*, 34:411–442.

Rett, J. (2012). Miratives across constructions and languages. Handout, *California Universities Semantics and Pragmatics* 5, UCSD.

Rett, J. (2019). The semantics of emotive markers and other illocutionary content. Ms., UCLA.

Rett, J. and Murray, S. (2013). A semantic account of mirative evidentials. In *Proceedings of SALT* 23 Proceedings, pages 453–472. CLC Publications.

Rudin, D. (2018). Rising imperatives. In *Proceedings of SALT* 28, pages 100–119. CLC Publications.

Sadock, J. and Zwicky, A. (1985). Speech act distinctions in syntax. In Shopen, T., editor, *Language typology and syntactic description*, volume 1, Clause structure, pages 155–197. Cambridge University Press.

Sadock, J. M. (1974). *Towards a linguistic theory of speech acts*. Academic Press.

Searle, J. and Vanderveken, D. (1985). *Foundations of illocutionary logic*. Cambridge University Press.

Searle, J. R. (1969). *Speech acts*. Cambridge University Press.

Rett, J. and Sturman, B. (2020). Prosodically marked mirativity. In the *Proceedings of WCCFL* 37.

Tenny, C. (2006). Evidentiality, experiencers and the syntax of sentience in Japanese. *Journal of East Asian Linguistics* 15, 245–288.

Woods, R. (2014). Orientation shifting in English high adverbs: evidence for the representation of discourse participants in the structure. In Kohlberger, M., Bellamy, K., and Dutton, E., editors, *Proceedings of ConSOLE* XXII. Leiden University Centre for Linguistics.

Wu, J.-S. (2008). Antonyms? Presuppositions? On the semantics of two evaluative modals *jingran* and *guoran* in Mandarin. *Journal of Chinese Language and Computing*, 18:161–173.

Yalcin, S. (2007). Epistemic modals. *Mind*, 116:983–1026.

Zanuttini, R. and Portner, P. (2003). Exclamative clauses: at the syntax-semantics interface. *Language*, 79:39–81.

Zimmermann, M. (2007). I like that damn paper - three comments on Christopher Potts' 'The expressive dimension'. *Theoretical Linguistics*, 33:247–254.