

The semantics of emotive markers and other illocutionary content

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Abstract

I coin the term ‘emotive markers’ to describe words like *alas* which encode not-at-issue information about the speaker’s emotive attitude towards the content of the utterances they occur in. I argue that there are important differences emotive markers and encoders of canonical not-at-issue content, like the utterance modifier *frankly* or the evidential adverb *apparently*. In contrast to the latter, emotive markers are only compatible with declarative mood; are uniquely restricted in terms of the content they apply to; and can result in Moore’s Paradox. I conclude that the contribution of emotive markers should thus be treated as ‘illocutionary content’, on par with the sincerity conditions encoded in illocutionary mood. I present a formal analysis of illocutionary content in which it differs from other not-at-issue content in restricting the speaker’s Discourse Commitments (Gunlogson, 2001) rather than the Common Ground.

1 Introduction

This paper lies at the intersection of two traditions of meaning distinction. The first – characterized by Speech Act Theorists like Stenius (1967); Searle (1969) as well as recent dynamic adaptations like Farkas and Bruce (2010); Murray (2014) – distinguishes between the denotation of a sentence (e.g. its propositional content) and how the denotation affects or is applied to the context (e.g. the contribution of its illocutionary mood). The second – characterized by Potts (2005) and Simons et al. (2010) but also recent dynamic adaptations like Murray (2010); AnderBois et al. (2010) – distinguishes between the at-issue or non-projective content of a sentence and its not-at-issue or projective content (e.g. conventional implicatures and some presuppositions).

The goal of this paper is to argue that both of these distinctions are useful. There are two types of content that qualify as not-at-issue: the first type, what we canonically think of as not-at-issue content (encoded in appositives, Pottsian expressives like *bastard*, evidential adverbs, and utterance modifiers like *frankly*),

is part of the descriptive content of the sentence. The second type, which I refer to as ‘illocutionary content,’ is also semantically encoded and not-at-issue, but it instead pertains to how the speaker is using the utterance in context.

This distinction loosely parallels one made in Kaplan (1997) (and underscored in Kratzer, 1999), regarding words like *ouch* and *oops*: “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”. (Kaplan illustrates the distinction by contrasting the descriptive expression *I am in pain* with the expressive expression *Ouch*.)

Emotive markers, the empirical focus of this paper (to be discussed in detail in the next section), are morphemes and prosody that mark a speaker’s emotive attitude towards some descriptive content. Moreover, the information they contribute is not-at-issue and is in particular, as I will argue, illocutionary content. The sentence in (1-a) does not contain an emotive marker; the sentences in (1-b) and (1-c) do.

- (1) a. John lost the race.
- b. Alas, John lost the race.
- c. (Wow,) John lost the race!

An utterance of (1-b), with the emotive marker *alas*, indicates that the speaker is disappointed that John lost the race. (1-c), uttered with exclamation intonation (signified by the exclamation point and encouraged by particles like *wow*), indicates that the speaker is surprised that John lost the race.

The semantic contribution of these emotive markers is decidedly not-at-issue: their meaning cannot be targeted by truth-conditional operators, denied in discourse, or used to address the Question Under Discussion, as I will demonstrate below. But emotive markers differ in some notable ways from canonical encoders of not-at-issue content, like utterance modifiers, evidential adverbials, Pottsian expressives and appositives: they are in general unacceptable outside of declarative sentences (§3.2.1); they must take narrow scope in certain contexts (§3.2.3); and they can result in Moore’s Paradox (§3.2.2).

In this paper, I’ll argue that emotive markers form a natural subclass of encoders of not-at-issue content in terms of the kind of meaning they encode (i.e. the speaker’s emotive attitude) and their linguistic behavior. I will argue that the former partially determines the latter: emotive markers, in contrast to e.g. expressives and appositives, behave the way they do because a) they (necessarily) target propositional content (in contrast to sub-propositional content); and b) the information they encode pertains to the speaker’s emotive attitude. Consequently, I’ll argue, emotive markers quite naturally encode their meaning at an illocutionary, rather than descriptive, level: they contribute to the speaker’s Discourse Commitments (Gunlogson, 2001), rather than the Common Ground. Others (Searle and Vanderveken, 1985; Vanderveken, 1990) have proposed a similar treatment; I attempt to better substantiate the claim, and formulate the analysis in a dynamic update semantics, which allows for a particularly natural compositional account of illocutionary mood and related content.

In the next section, I delineate the class of emotive markers by providing several examples and descriptive generalizations. In §3, I will show how emotive markers differ from apparently similar not-at-issue phenomena like evidentials, expressives, and discourse particles.

A quick terminological note: following many, exemplified by Hausser (1980), I will use the term **illocutionary mood** to refer to the morphosyntactic category marking sentence type. And I will use the term **illocutionary force** to label that which results in the speech acts these sentences are used in. To illustrate: Some languages morphologically mark imperative mood; because grammar underdetermines speech acts, imperative mood is consistent with a variety of illocutionary forces, including commands, suggestions, advice, etc.

In what follows, I argue that the existence and behavior of emotive attitude markers requires a particular typology of semantic content, as illustrated in Figure 1. I will use the term **content** very broadly, to refer to any meaning that is lexically or prosodically encoded. As suggested above, I distinguish between **at-issue** and **not-at-issue content** (as decided by the standard tests of projection outside of a truth-conditional operator, deniability in discourse, and ability to address the Question Under Discussion). I will additionally motivate a distinction between **descriptive** and **illocutionary content**, loosely equivalent to Kaplan’s descriptive and expressive distinction. While descriptive content amounts to what is said, illocutionary content pertains to how the speaker is using the utterance in context.

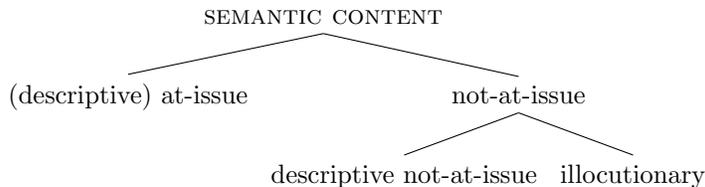


Figure 1: Content distinctions

While the narrow goal of this paper is a characterization and explanatory compositional account of emotive markers, I believe the discussion here sheds light on a few larger issues. It addresses and attempts to delineate – for the first time, to my knowledge – the oft-implied intuition that there is a level of illocutionary content separate from canonical not-at-issue content like conventional implicature (see Frege, 1956; Potts, 2003b; Rett and Murray, 2013, for mentions of such a distinction). And it brings an interesting perspective to a recent debate involving cross-linguistic semantic variation in evidentials (Murray, 2010; Matthewson, 2011; Faller, 2014).

2 A profile of emotive markers

I define emotive markers as in (2).

- (2) Emotive markers are morphemes or prosody that encode:
- a. the speaker's emotive attitude;
 - b. towards some proposition made salient by the utterance in which they occur;
 - c. in backgrounded, not-at-issue content.

To illustrate this, I focus initially on the emotive markers *alas* and *fortunately* in English because they are lexical (as opposed to prosodic) and unambiguously target propositions. (Bellert, 1977, has referred to words like *fortunately* as 'evaluative adverbs'). I then turn to prosodic markers and expressives like *damn*, which may or may not target propositions.

I take the minimal pair in (3), repeated from (1), to illustrate the semantic contribution of an emotive marker (in this case, *alas*):

- (3) a. John lost the race.
 b. Alas, John lost the race.
- (4) Fortunately, John lost the race.

While both utterances amount to an assertion that John lost the race, in (3-b) the speaker additionally conveys that she is upset or dismayed that John lost the race. *Fortunately* generally behaves like the antonym of *alas*; it's used to express that the speaker is pleased or relieved at the descriptive content of the utterance.¹

Emotive markers do not contribute to the at-issue content of the utterance: their content cannot be targeted by truth-conditional operators (5) and cannot be denied in discourse (6).²

- (5) a. Alas, John did not lose the race.
 b. Alas, it is not the case that John lost the race.
 c. It is not the case that John lost the race, alas.
- (6) A: Alas, John lost the race.
 B: That's not true, he won!
 B':#That's not true, you're glad he did!

(5) shows different ways of negating the sentence in (3-b); none can negate the contribution of *alas*. These utterances cannot be used to express that the speaker does not regret that John did not lose the race. In (6), Speaker B's protest that Speaker A's utterance is not true can be justified by the claim that John won; in contrast, the B' protest cannot be justified by the claim that Speaker A was glad that John lost the race.

¹In the case of (3), the proposition that the emotive marker ranges over is the descriptive content of the utterance, and in particular its at-issue content. But this isn't always the case: as I'll show shortly, emotive markers can range over descriptive not-at-issue content encoded in the sentence, or in some cases over speaker bias associated with a question.

²The English judgments presented in this paper are those of the author and all of the four other native speakers of English informally consulted for judgments. I will note disagreement where it has arisen.

In contrast, the content encoded in emotive verbs like *be disappointed* or *be surprised* is targetable by truth-conditional operators (e.g. *I am not surprised that John won the race*), and is therefore at-issue. In the rest of this section, I will provide some additional examples of emotive markers, all of which pattern like *alas* and *fortunately* in tests for not-at-issueness. In the following section, I will show how emotive markers form a distinct class from canonical markers of not-at-issue content.

Instead of disappointment or relief, many emotive markers indicate that the speaker is surprised by (or had not expected) the propositional content of the utterance. This phenomenon is, in some traditions, referred to as ‘mirativity’ DeLancey (1997, 2001).

In English, speaker surprise can be marked intonationally, by a prosodic emotive marker. This is illustrated by the difference between the assertion in (7-a) and the exclamation in (7-b) (Sadock, 1974; Cruttenden, 1986; Michaelis, 2001; Merin and Nikolaeva, 2008). I take the exclamation point in these examples to model a particular prosody or intonation in English: a steady Rise, abrupt Fall contour (Cruttenden, 1986) plus features of emphasis like lengthening (Bartels, 1999). This intonation is brought out especially well by discourse particles like *wow*, although such discourse particles should not be confused with the emotive marker (the intonation) itself: they are optional in exclamatives, and can occur on their own, without descriptive content (Rett, 2009, 2008, 2011).

- (7) a. John arrived on time.
 b. (Wow,) John arrived on time!

The difference in meaning between (7-a) and (7-b) is the expression of the speaker’s emotive attitude: both utterances convey the same descriptive content, but (7-b) additionally expresses that the speaker is surprised by (or had not expected) the descriptive content of the utterance.

Like *alas*, the content encoded in exclamation intonation is not-at-issue. It can’t be denied in discourse (8) or targeted by negation: (9) cannot mean ‘The speaker is not surprised that John lost the race.’

- (8) A: (Wow,) John lost the race!
 B: That’s not true, he won.
 B’:#That’s not true, you knew he would lose.

- (9) (Wow,) John did not lose the race!

While English encodes speaker surprise or mirativity in intonation, other languages encode the meaning lexically. In Finnish, for example, the sentence particle *-pää* expresses speaker surprise (Karlsson, 1999, 20). Like the pair in (7), the pair in (10) differ only in that (10-b) additionally encodes that the speaker finds the propositional content (that there are lots of flowers) surprising. They do not differ in intonation.³

³Thanks to Peter Sutton (p.c.) for drawing my attention to *pää*, and to Tuomo Tiisala (p.c.) for his judgments.

- (10) a. Täällä on paljon kukk-ia.
 here be-3RD.SG a.lot flower-PRT.INDF.PL
 ‘There are lots of flowers here.’
 b. Täällä-pä on paljon kukk-ia.
 here-PA be-3RD.SG a.lot flower-PRT.INDF.PL
 ‘(Wow,) There are lots of flowers here!’

Like exclamation intonation, the content encoded by *pä* cannot be directly denied in discourse, and cannot be targeted by negation.

Wu (2008) reports two sentential adverbs in Mandarin that seem to count as emotive markers. As shown in (11), *jingran* is a mirative marker, and the adverb *guoran* seems to be its antonym: it is used to express that the asserted content was expected by the speaker.

- (11) Zhangsan guoran /jingran lai le.
 Zhangsan GUORAN /JINGRAN come PST
 ‘Zhangsan came (as expected/not expected by the speaker).’

Finally, as detailed in Rett and Murray (2013) and elsewhere, there is a robust crosslinguistic tendency for indirect evidential markers to double as mirative markers. I’ll briefly introduce the phenomenon of evidentials and then illustrate mirative evidentials from Tsafiki, a Barbacoan language spoken in Ecuador, as reported in Dickinson (2000).

Tsafiki is an evidential language, which means that all grammatical sentences contain an evidential marker that specifies the type of evidence for their descriptive content (Aikhenvald, 2004). Tsafiki’s is a three-way evidential system; it distinguishes between direct physical evidence (12-a), information inferred from direct physical evidence (12-b), and information inferred from general knowledge (12-c) (from Dickinson, 2000, 407–8).⁴

- (12) a. Manuel ano fi-e.
 M food eat-DECL
 ‘Manuel ate.’ (The speaker saw him.)
 b. Manuel anno fi-nu-e.
 M food eat-IND-DECL
 ‘Manuel ate.’ (The speaker sees the dirty dishes.)
 c. Manuel anno fi-n-ki-e.
 M food eat-NOM-INF-DECL
 ‘Manuel must have eaten.’ (He always eats at 8:00; it’s now 9:00.)

However, in certain contexts, the indirect evidential *nu* marks mirativity instead of indirect evidence. Dickinson (p411) describes (13) as ambiguous.

- (13) Moto jo-nu-e.
 motorcycle be-IND-DECL

⁴DECL labels the declarative marker, which encodes declarative mood. I’ve labelled the second evidential IND for ‘indirect’ and the third INF for ‘inferential’.

‘It is a motorcycle.’ (The speaker hears a motor.)
‘It’s a motorcycle!’

In a context in which the speaker has indirect evidence for the proposition – for instance, that she hears rather than sees a motorcycle – the indirect evidential in (13) is licensed. However, it is also licensed in contexts in which the speaker sees the motorcycle, i.e. has direct evidence for the motorcycle, in which case that same evidential functions instead as a mirativity marker, in which case (13) conveys that the speaker is surprised that it is a motorcycle.

The polysemy illustrated in (13) – the repurposing of indirect evidentials as mirative markers – happens across languages and language families: in Turkish (Slobin and Aksu, 1982), Tibetan (DeLancey, 1997), and Cheyenne (Rett and Murray, 2013). Important here is the observation that, when these polysemous morphemes receive a mirative interpretation, they are acting as emotive markers.

In the next section, I will argue that emotive markers behave differently in principled ways from other encoders of not-at-issue content, including evidentials.⁵

3 What distinguishes emotive markers

I’ve defined emotive markers as follows (from (2)):

- (14) Emotive markers are morphemes or prosody that encode:
- a. the speaker’s emotive attitude;
 - b. towards some proposition made salient by the utterance in which they occur;
 - c. in backgrounded, not-at-issue content.

This definition excludes a variety of canonical encoders of not-at-issue content. I’ll first discuss what doesn’t qualify as an emotive marker, and then (in §3.2) show that emotive markers behave as a distinct subclass of encoders of not-at-issue content. In §4 I’ll argue that they are best analyzed as encoding illocutionary content: content regarding the speaker’s use of the utterance.

3.1 What emotive markers aren’t

There are a number of canonical encoders of not-at-issue content: most recognizably presupposition triggers; Pottsian expressives like *bastard*; and appositives. These are illustrated in (15); (16) demonstrate that their meanings, too, cannot be targeted by truth-conditional operators like negation.

- (15) a. John’s sisters live in Melbourne. *presupposition trigger*

⁵Correspondingly, I will strengthen the above claim to a biconditional: *only when* the polysemous mirative evidentials receive a mirative interpretation do they qualify as emotive markers.

- b. John met with that bastard Bill. *Pottsian expressive*
 - c. John, an avid cyclist, won the race. *appositive*
- (16)
- a. It's not the case that John's sisters live in Melbourne.
not negated: John has sisters
 - b. It's not the case that John met with that bastard Bill.
not negated: The speaker thinks that Bill is a bastard
 - c. It's not the case that John, an avid cyclist, won the race.
not negated: John is an avid cyclist

Non-presupposed, lexically encoded not-at-issue content is generally characterized as conventional implicature (Potts 2005, though see Bach 1999). Conventional implicature is typically analyzed semantically in one of two ways: statically, on a different tier from at-issue content (Potts, 2003a,b, 2005, 2007; Gutzmann, 2015); or dynamically, as an automatic common-ground update (Murray, 2010, 2011, 2014; AnderBois et al., 2010, 2013). I'll ultimately argue that these approaches do not appropriately account for the idiosyncractic behavior of emotive markers.

As suggested by the definition in (14), encoders of not-at-issue content can fail to count as emotive markers for two reasons. Appositives and many expressives (e.g. *that bastard John*) reflect the speaker's emotive attitude, but towards something sub-propositional, like an individual (thereby failing to satisfy (14-b)). An exception is *damn*, which can modify individuals (e.g. *that damn postman*) or can be used to mark the speaker's dismay at a proposition (e.g. *Damn, John lost the race!*). When it is used in the latter sense, *damn* qualifies as an emotive marker.⁶

And while many canonical encoders of not-at-issue content target propositions, they do not encode the speaker's emotive attitude (thereby failing to satisfy (14-a)). Evidentials encode the speaker's type of evidence for the descriptive content of an utterance, and speaker certainty markers like *of course* encode the speaker's level of credence in it (see also Ettinger and Malamud, 2015). Utterance modifiers like *frankly* appear to modify the speech act itself, causing Potts (2003b) to analyze them (along with Japanese performative honorifics) as denoting not-at-issue content associated with a null verb *utter*.

The phenomenon of discourse particles (e.g. English *too, even, indeed*, German *toch, doch*) is also relevant; however, because the label 'discourse particle' describes a morphosyntactic category, it refers to a semantically heterogeneous class (see Waltereit, 2001, for a related discussion). Zimmermann (2011) defines the class of discourse particles as follows (p2012): "Discourse particles in the narrow sense are used in order to organize the discourse by expressing the speaker's epistemic attitude towards the propositional content of an utterance, or to express a speaker's assumptions about the epistemic states of his or her interlocutors concerning a particular proposition." Particles that satisfy this first disjunct, like the Finnish *pää*, might qualify as emotive markers according to (14); those that satisfy the second do not.

⁶Thanks to Kai von Fintel (p.c.) for making this point.

3.2 How emotive markers differ

In the previous subsection, I characterized the class of emotive markers as encoders of not-at-issue content about the speaker’s emotive attitude towards some proposition made salient by the utterance. In this section, I’ll argue that this appropriately identifies a natural subclass of not-at-issue content: unlike canonical encoders of not-at-issue content, emotive markers are discriminating about the illocutionary mood they can occur with; have a relatively restricted interpretation in conditionals; and can result in Moore’s Paradox. I’ll discuss these in turn.

3.2.1 Unacceptability with non-declarative mood

Another test for not-at-issue is whether or not the content persists in questions. The questions in (17) carry the presuppositions and implications that their declarative counterparts in (15) do, but the entailments of those sentences do not survive.

- (17) a. Where do John’s sisters live?
b. Where did John meet with that bastard Bill?
c. When did John, an avid cyclist, win the race?

Other encoders of canonical not-at-issue content, like utterance modifiers and evidential adverbs, can also occur in constituent questions, although the two classes differ in whether they must occur sentence-initially or sentence-finally (Giorgi, 2010).⁷

- (18) a. Frankly, who was wrong? (Giorgi, 2010, 94)
b. Seriously, what can I buy you for your birthday?
(19) a. Who was responsible for the computer hack, allegedly?
b. How much does the dean make, reportedly?

These proposition-taking encoders of canonical not-at-issue content can also occur in polar questions, as demonstrated in (20).

- (20) a. Seriously, can Andy play rugby? (Woods, 2014)
b. Was the President complicit in a crime, allegedly?

In contrast, the emotive markers *fortunately* and *unfortunately* are unacceptable in either position in constituent questions (21), as well as in polar questions (22).

- (21) a. *Alas/Fortunately/Unfortunately, who lost the race?
b. *Who lost the race, alas/fortunately/unfortunately?
(22) a. *(Un)fortunately, did John lose the race?
b. *Did John lose the race, (un)fortunately?

⁷Both emotive markers and canonical encoders of not-at-issue content can occur in questions sentence-medially; I address these data at the end of this section.

English exclamation intonation is unacceptable in questions (although this is plausibly for phonological reasons, since questions in English are marked in part prosodically). But the Finnish mirativity marker *pä* is also unacceptable in questions, across the board, despite being a lexical emotive marker.

Mirative evidentials in Cheyenne are also unacceptable in questions. Recall that mirative evidentials mark evidentiality in some contexts and mirativity (or speaker surprise) in others. In the latter cases, they count as emotive markers. And, as shown in Rett and Murray (2013), this difference in interpretation affects their ability to occur in questions. When the Cheyenne mirative evidential (glossed as NAR for ‘narrative’) occurs in questions, as in (23), it can only receive an evidential interpretation, not a mirative interpretation. (The unavailability of the intended interpretation in (23-b) is marked by %.)

- (23) a. Mó=é-x-hó' táhevá-**hoo'o** Aénohe?
 y/n=3-REM.PST-win-NAR.3SG Hawk
 ‘Given the stories you heard, did Hawk win?’
 b. %Mó=é-hó' táhevá-**hoo'o** Aénohe?
 y/n=3-win-NAR.3SG Hawk
 Intended: ‘Given your surprise, did Hawk win?’ / ‘Did Hawk really win?!’

These data demonstrate that emotive markers are unacceptable in questions, even relative to encoders of canonical not-at-issue content that target propositions like utterance modifiers or evidential adverbs. *Alas* complicates this generalization somewhat, however. In contrast to *fortunately* and *unfortunately* (but in congruence with utterance modifiers and evidential adverbs), *alas* can occur in *wh*-questions sentence-medially, as demonstrated in (24).

- (24) Who, *alas*/**fortunately*/**unfortunately*, lost the race?

And *alas* is relatively acceptable in polar questions, as (25) demonstrates.

- (25) Alas, did John lose the race?

As the data from Cheyenne and Finnish suggests, emotive markers are generally unacceptable in questions, and *fortunately* and *unfortunately* are more representative of the class than *alas* is.

It’s worth noting that, in (25), the emotive marker doesn’t target the question: it does not convey that the speaker is dismayed at whether John lost the race. In (25) *alas* instead targets the bias of the polar question, namely the proposition that John did lose the race (Büring and Gunlogson, 2000; Sudo, 2013). Similarly, in the constituent question in (24), *alas* seems to be targeting an existentially closed proposition relating to the question, namely that someone lost the race. This suggests that *alas* (like other emotive markers) can never target a question. I’ll suggest in §4 that this variation across emotive markers can be explained in terms of the requirements they place on the propositional

argument to which they are anaphoric.⁸

I'll end by noting, for the sake of completeness, that emotive markers are unacceptable with other non-declarative moods as well (for instance, in imperatives, (26)). This is true for Finnish *pää* (and English exclamation intonation, again for plausibly phonological reasons).

- (26) a. #Alas/Unfortunately, clean up your room!
b. #Fortunately, get a job!

They are also unacceptable, as a reviewer points out, in all varieties of performatives:

- (27) a. #Alas, I declare you man and wife.
b. #Unfortunately, I (hereby) promise to take out the garbage.

But this is true of many other encoders of not-at-issue content, as well, so these data do not motivate the proposed distinction.

In sum, while canonical encoders of not-at-issue content are acceptable in questions ((17)–(19)), emotive markers tend to be unacceptable in questions (and with non-declarative mood in general). The ability to predict this difference is thus an important desideratum for a semantic theory of emotive markers.

In §4 I analyze emotive markers as effectively modifying the sincerity conditions of declarative utterances. It's important to point out that, if this were the correct analysis of emotive markers, we would predict just the sort of incompatibility with non-declarative mood that we see, but of course the opposite doesn't necessarily hold: there could be other elements that are incompatible with non-declarative mood for other reasons. The second semantic distinction between emotive markers and encoders of canonical not-at-issue content, presented below, provides additional evidence for the distinction between the two types of elements, and for a treatment of emotive markers as contributing the sort of illocutionary content modeled in §4.

3.2.2 Moore's Paradox

There is another way in which emotive markers differ from canonical encoders from not-at-issue content: denying the content of emotive markers results in

⁸This demonstrates that emotive markers can target content encoded in constructions or configurations that most typically encode not-at-issue content, like appositives; this is even more transparent in (i).

- (i) John's tennis coach, alas not his dentist, extracted the tooth.

In §4, I account for this by analyzing emotive markers as anaphoric on the most salient proposition, the one pushed to the top of the Table. From this perspective, the content encoded in the appositive in (i) can be, in particular contexts, part of the at-issue content: it can be part of an answer to the question under discussion, e.g. *Why is John on painkillers?*. I discuss this phenomenon more in §4.3, although I am unable to address, for any given canonical encoder of not-at-issue content, why that marker may or may not be able to scope over not-at-issue content in a similar manner.

Moore’s Paradox, while denying the content of other not-at-issue meaning results in something more like a contradiction. Moore’s Paradox occurs when the assertion of a proposition is coupled with the speaker’s denial that she believes the proposition. The paradoxical result is the judgment of unacceptability, exemplified in (28).

(28) #It’s raining, but I don’t believe it’s raining.

The source of this unacceptability has been the cause of a great deal of debate; in the next section, I will side with Searle (1969) in arguing that Moore’s Paradox occurs when the second conjunct denies a sincerity condition encoded in the illocutionary content of the first.

This test was adapted from Murray (2010)’s work on Cheyenne. Recall that mirative evidentials – like the Cheyenne narrative evidential – receive an evidential interpretation in some contexts and a mirative interpretation in others. When they receive a mirative interpretation, they qualify as emotive markers. Murray reported that the evidential and mirative uses of Cheyenne mirative evidentials differed in Moorean constructions. She presented consultants with a pair of conjoined sentences; the first conjunct in each contained the mirative evidential, the second conjunct denied the content of the mirative evidential. In the first sentence, in (29), the mirative evidential has an evidential interpretation (in Cheyenne, a narrative reading). In the second sentence, (30), the mirative evidential has a mirative interpretation.

(29) #_⊥É-hó’tàheva-sèstse Aénohe naa oha hovánee’e
 3-win-RPT.3SG Hawk but nobody
 é-sáa-nè-hé-he-∅.
 3-NEG-that-say-MOD_A-DIR
 Intended: ‘Hawk won, it’s said, but nobody said that.’

(30) #É-hoo’kóhó-**neho**! Ná-nèšè-héne’ena tsé-to’sè-hešè-hoo’koho.
 3-rain-nar.sg.inan 1-continue-know.s.t CNJ-going.to-how-rain
 Intended: ‘It’s raining! ... # I *knew* it was going to rain.’

Both sentences sounded unacceptable to Murray’s consultants. But consultants reported a difference in the unacceptability. They claimed that the mirative Moorean sentence in (30) was infelicitous (marked with #), in just the same way they judged traditional Moorean sentences to be. But the evidential Moore’s Paradox sentence in (29) was **contradictory** (marked #_⊥), distinct from the infelicity of traditional cases like (28) and the mirative construction in (30).

Murray interpreted this as evidence that mirative content differed in kind from evidential content, and in particular that the former patterned with the sincerity conditions of an utterance (and were thus better characterized as illocutionary content than the evidential interpretation of Cheyenne mirative evidentials). I will adopt the same conclusion.

The distinction between two different types of infelicity is appreciably subtle, however. When I consulted native English speakers about this distinction,

presented in the form of a sorting task, about half were unable to recognize a difference between the type of felicity in any of the three sentences below: (31-a) the classic Moore’s Paradox; (31-b) a version with canonical not-at-issue content (an evidential adverb); and (31-c), a version with emotive markers.

- (31) a. #It’s raining, but I don’t believe it’s raining.
- b. #Allegedly, John lost the race, but no one alleged he did.
- c. #Alas, John lost the race, but I’m not disappointed he did.

However, those consultants who did report differences in their judgments all reported that the emotive marker sentence in (31-c) patterned with the classical Moorean sentence in (31-a) to the exclusion of the evidential sentence in (31-b), which is consistent with Murray’s findings.

A clearer test involves the embedding of Moorean sentences in certain epistemic contexts (Yalcin, 2007). Standard Moorean sentences like (31-a) become acceptable when embedded in the antecedent of a conditional or under the verb *suppose*, as in (32) (although see Roberts 2015 for a dissenting view).

- (32) a. Suppose that it is raining, but that 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.

Section §3.2.3 discusses complications presented by emotive markers in conditional antecedents, so I focus on the *suppose* test in (33).⁹

- (33) a. Suppose that, alas, John lost the race, but that I’m not disappointed he did.
- b. #Suppose that, allegedly, John lost the race, but that no one alleged that he did.

These sentences illustrate a contrast, arguably similar to the one reported by Murray for Cheyenne: denying the content encoded in emotive markers like *alas* results in Moore’s Paradox, which is obviated under *suppose*. As a result, (33-a) is reported to be acceptable. In contrast, similar denial of the content of the evidential *allegedly* in (33-b) sounds relatively unacceptable.

These tests illustrate a second way in which the content encoded in emotive markers seems to differ semantically from canonical not-at-issue content, like that encoded in utterance modifiers, evidentials, and some expressives: the content encoded in emotive markers behaves just like the sincerity conditions of

⁹A reviewer points out that while the different scope-taking properties of emotive markers and canonical encoders of not-at-issue content discussed in §3.2.3 prevent a direct comparison, a sentence like (i) is acceptable, as predicted:

- (i) If John, alas, lost the race but I am not disappointed that he did, then there is something I’m not disappointed about.

The acceptability of this sentence changes if *alas* is pronounced clause-initially in the antecedent, because in that case, it scopes over the entire conjunctive antecedent (see §3.2.3).

declarative utterances in Moorean sentences, while canonical not-at-issue content behaves like other descriptive content in that it leads to contradiction when denied by the speaker. This supports the distinction I characterized in §1 between descriptive and illocutionary content; the latter, encoded in emotive markers, is content regarding how the speaker is using the utterance in context.

3.2.3 Differences in scope

A final observed empirical difference between emotive markers and canonical encoders of not-at-issue content is a difference in their scope-taking. It is one that is potentially a syntactic difference, rather than a semantic one. And in the analysis proposed in §4, this difference receives a treatment that is in-principle independent from the main treatment of emotive markers. In short, I treat the first two differences between emotive markers and encoders of canonical not-at-issue content – unacceptability with non-declarative mood, and the ability to result in Moore’s Paradox – as indicative of the fact that emotive markers effectively modify the sincerity conditions of an utterance, relating the speaker to some proposition via an emotive attitude. I treat this scope difference between emotive markers and encoders of canonical not-at-issue content, to be discussed below, as part of a larger body of evidence that informs us about what sort of proposition emotive markers can range over given their semantic characterization, and how a marker that encodes illocutionary content can range over embedded clauses, not just matrix sentences.

As discussed above, there are a number of encoders of canonical not-at-issue content that can range over propositions: utterance modifiers like *frankly*; evidentials like *apparently*; and some Pottsian expressives like *damn*. In this subsection, I will show that emotive markers differ from these other elements in their scope, by which I mean the propositions they range over. In the antecedents of conditionals, the scope of emotive markers is restricted relative to canonical encoders of not-at-issue content.

Canonical encoders of not-at-issue content can occur in the antecedents of conditionals as well as sentence-initially.¹⁰ When they do, they must range over the conditional as a whole. This is illustrated in (35) for the utterance modifier *frankly* and in (36) and (37) for the evidentials *apparently* and *allegedly*.

- (35) a. Frankly, if the mayor is convicted, she must resign from office.
 b. If, frankly, the mayor is convicted, she must resign from office.
- (36) a. Apparently, if the mayor is convicted, she must resign from office.
 b. If, apparently, the mayor is convicted, she must resign from office.

¹⁰Interestingly, emotive markers must syntactically precede these other sentential modifiers, demonstrated by the contrast in (34) (Cinque, 1999).

- (34) a. Alas, apparently John died.
 b. *Apparently, alas John died.

Neither seems to be able to apply to the other’s content, however; (34-a) cannot mean the speaker is disappointed that it’s apparent (as opposed to unapparent, or clear) that John died.

- (37) a. Allegedly, if the researchers didn't follow protocol, they'll be fired.
 b. If, allegedly, the researchers didn't follow protocol, they'll be fired.

In other words: when canonical encoders of not-at-issue content are in the antecedent of conditionals, as they are in the (b) sentences, they cannot range over the antecedent itself, but must range over the conditional as a whole. The (a) sentences are paraphrasable as the (b) sentences; and furthermore, in neither can the adverb range over just the antecedent.

In (36-b), for instance, this would result in a reading compatible with a situation in which it is apparent that the mayor will be convicted, but it is not apparent that she will have to resign from office as a result. In (37-b), this would result in a reading in which it is alleged that the researchers didn't follow protocol, but in which no one has alleged that a break in protocol will result in their being fired. These readings are not available.

This claim is illustrated more definitively in (38-b), in which the antecedent but not the conditional as a whole is compatible with indirect evidence. The resulting conditionals are unacceptable, regardless of the position of the evidential.

- (38) a. #Apparently, if the mayor is convicted, I will run for office.
 b. #If, apparently, the mayor is convicted, I will run for office.

To summarize, canonical encoders of not-at-issue content take wide scope in conditionals: regardless of their syntactic position in the conditional, they range over the conditional as a whole.

Lexically encoded emotive markers have the same syntactic distribution in conditionals, but they receive a distinct interpretation when embedded in antecedents: they take narrow scope, ranging over only the antecedent. This is illustrated below with *alas*.

- (39) a. Alas, if the mayor is convicted, she must resign from office.
 b. If, alas, the mayor is convicted, she must resign from office.

In (39-a), *alas* can range over the entire conditional, as do the not-at-issue encoders in (35)–(37). But in (39-b), when *alas* is in the antecedent of the conditional, it can only range over the antecedent, not the meaning of the conditional as a whole.¹¹

This point is illustrated more definitively by the contrast in (40), a conditional in which the consequent is a proposition the speaker would (in a neutral context) not be dismayed by.

¹¹A reviewer points out that appositives embedded in antecedents of conditionals can range only over the antecedent, as in (i), which encodes a meaning very similar to the evidential adverb *allegedly*.

- i. a. If, as Bill told Mary, the researchers didn't follow protocol, they'll be fired.
 b. If, as is alleged, the researchers didn't follow protocol, they'll be fired.

It's not clear to me what accounts for this apparent similarity to emotive markers; these 'appositive similatives' are incompatible with non-declarative mood, as well.

- (40) a. #Alas, if the mayor is convicted, at least we'll have the chance of getting a better one.
 b. If, alas, the mayor is convicted, at least we'll have a chance of getting a better one.

Because the content encoded in *alas* is incompatible with the chance of getting a better mayor, and because the sentence-initial *alas* in (40-a) ranges over the conditional as a whole, the conditional in (40-a) is unacceptable. In contrast, since *alas* only ranges over the antecedent when it is embedded in the antecedent, (40-b) is acceptable. This pair forms a direct contrast with the pair in (38-a) and (38-b).

Other lexical emotive markers, like *fortunately* and *unfortunately*, behave the same way in conditional antecedents, as partially demonstrated in (41).

- (41) a. #Unfortunately, if the mayor is convicted, at least we'll have the chance of getting a better one.
 b. If, unfortunately, the mayor is convicted, at least we'll have the chance of getting a better one.

However, it's worthwhile noting that the expressive *damn*, which I have classified as an emotive marker when it ranges over propositions, cannot be embedded anywhere in conditionals.

- (42) a. Damn, if the mayor is convicted, she'll have to resign!
 b. *If, damn, the mayor is convicted, she'll have to resign!
 c. *If the mayor is convicted, she will, damn, have to resign!

3.2.4 Interim summary

I've delineated class of linguistic markers based on the meaning they encode: the speaker's emotive attitude towards some salient proposition, in backgrounded content. This groups together words like *alas* with prosodic markers like exclamation intonation; it also includes some discourse particles like the Finnish *pä*, and the mirative interpretation of mirative evidentials. And it excludes many other linguistic elements that are prima facie similar: evidentials, utterance modifiers like *frankly*, expressives, appositives, and speaker certainty markers.

Like these other elements, emotive markers encode not-at-issue content: their semantic contribution cannot be targeted by truth-conditional operators, be denied in discourse, or used to address the Question Under Discussion. But I've argued here that emotive markers don't behave like other encoders of not-at-issue content in at least three respects.

First, emotive markers, to the exclusion of the others, are incompatible with non-declarative mood. This is true, with one slight exception, of emotive markers like *unfortunately* in English; of discourse particles like *pä* in Finnish; and, most starkly, of the mirative but not evidential interpretation of the polysemous mirative evidential in languages like Cheyenne. Second, there is some reason to think that denying the content of an emotive marker results in Moore's Para-

dox, while denying the content of other encoders of not-at-issue content does not. The case is clearest in the comparison of emotive markers and evidentials in (33): embedding an emotive marker and its denial under *suppose* removes the sense of Moorean Paradox, while embedding an evidential and its denial does not.

Finally, I’ve noted that emotive markers take narrower scope than do other not-at-issue encoders. When they occur in the antecedent of a conditional, they must apply to the antecedent, while utterance modifiers and evidentials in the same position instead apply to the conditional as a whole. I have however bracketed this discussion because this difference could be the result of idiosyncratic or syntactic differences between adverbs, and does not apply to prosodically-encoded or sentential emotive markers, which cannot be embedded. §4.3 contains a treatment of this scope difference in which it is independent from the core formal characterization of emotive markers.

In what follows, I propose an account of emotive markers in which they effectively restrict the sincerity conditions of an utterance, which is also a role played by illocutionary mood. I couch the analysis in a dynamic update semantics – based on Farkas and Bruce (2010) but drawing heavily from similar adaptations in Murray (2010, 2014); Ettinger and Malamud (2015) – and model illocutionary content as meaning that is added to the speaker’s set of Discourse Commitments (Gunlogson, 2001), rather than the Common Ground (as descriptive not-at-issue content does).

I will argue that this treatment of emotive markers as modeling ‘illocutionary content’ – effectively, as restrictors of sincerity conditions – does a good job of naturally accounting for the semantic differences observed in this section between emotive markers and other encoders of not-at-issue content. It is, additionally, a satisfying model of the persistent intuition – dating at least back to Frege – that emotive markers belong more to the realm of illocution than description.¹²

I do not, however, attempt to make the stronger claim that no extant theory of canonical not-at-issue content is capable of modeling the idiosyncratic behavior of emotive markers detailed here. Recall that there are two such types of theory: static accounts, (like Potts, 2003a,b, 2005), which treat not-at-issue content in a second, fairly independent semantic tier; and dynamic accounts, (like Murray, 2010, 2014; AnderBois et al., 2010, 2013), which encode not-at-issue content in an automatic common-ground update. These approaches could, in principle, treat emotive markers as they do other encoders of not-at-issue content, and accommodate their differences in behavior a case-by-case basis. But I suspect that such treatments wouldn’t be cohesive, explanatory, or satisfying. In particular, I don’t see how they could predict, as I attempt to do in the next section, a connection between the kind of meaning encoded in emotive markers with their semantic behavior.

¹²Frege (1956, 295) says, “An indicative sentence often contains, as well as a thought and the assertion, a third component over which the assertion does not extend. This is often said to act on the feelings, the mood of the hearer or to arouse his imagination. Words like *alas* or *thank God* belong here.”

4 Modeling illocutionary content

In accordance with the conclusions above, I will outline a proposal here for modeling illocutionary content in a compositional semantics. I use the term “illocutionary content” to refer to not-at-issue meaning, encoded lexically or prosodically in an utterance, pertaining to how the denotation of a sentence is used in the context. My claim here is that illocutionary content includes (but is not necessarily limited to) the contribution of illocutionary mood and of emotive markers. The claim that emotive markers contribute to illocutionary content is evidenced by their discrimination of illocutionary mood, and their ability to result in Moore’s Paradox.

I will argue that emotive markers behave the way they do because they effectively restrict the sincerity conditions of an utterance; and that they restrict the sincerity conditions of an utterance because they encode *speaker-oriented, emotive, propositional attitudes*. Because they mean what they do, emotive markers encode not-at-issue content about the speaker rather than the world. In the present analysis, emotive markers behave differently from propositional encoders of descriptive not-at-issue content because the latter add content to the Common Ground, while emotive markers, instead, add to the speaker’s Discourse Commitments.

The analysis is presented as follows: in §4.1 I will introduce the formal foundations for the analysis, based largely on the theory in Farkas and Bruce (2010); in §4.2 I will adapt Farkas and Bruce’s framework to model what I informally describe as emotive markers’ restriction of the sincerity conditions of an utterance, which accounts for their sensitivity to illocutionary mood type and Moore’s Paradox; in §4.3 I will incorporate focus semantics to account for the idiosyncratic scope-taking behavior of emotive markers.

4.1 A formal foundation

The claims made here – that sincerity conditions can be restricted by lexical or prosodic markers – underscores the need for a compositional semantic representation of sincerity conditions, or something equivalent. The compositional semantics developed below distinguishes between at-issue content, not-at-issue content, and illocutionary content; formally models sincerity conditions; and represents salience in a way that can include focus alternatives and not-at-issue content. While the proposal is consistent in principle with a number of different formal semantics for illocutionary mood (including Gazdar, 1976; Asher and Lascarides, 2003; Lascarides and Asher, 2009; Krifka, 2001, 2014; Murray, 2014; Murray and Starr, 2016; Portner, 2016), I adopt the framework proposed in Farkas and Bruce (2010) as a foundation, largely because it is flexible enough to easily supplement with my other theoretical desiderata.

Farkas and Bruce (2010) define speech acts as functions from input discourse structures K_i to output discourse structures K_o ; a subcomponent of any discourse structure is a (possibly empty) set of propositions that are under consideration for addition to the CG. This set is called a projected set, and an

assertion that p adds p to the input ps . They specify that interrogative mood differs from declarative mood in that the former adds a non-singleton set of propositions to the ps , while the latter adds and projects only one proposition (p.88).

They use the notion of a stack (a Table T) to model salience in discourse (Ginzburg, 1996; Roberts, 1996). In addition to affecting the common ground, utterances can also raise propositional discourse referents (“drefs”) to salience, and they do so in this theory by pushing the drefs to the top of the Table. Their original conception of the Table separates at-issue content from not-at-issue content; I will revisit this assumption in §4.3.

Gunlogson (2001) defined the CG in terms of the participants’ commitment sets; specifically, as the union of the discourse commitments of the participants. But one other important innovation of Farkas and Bruce’s approach is the separation of the CG and Discourse Commitment sets. They say: “The discourse commitment set of a participant A at a time t in a conversation c contains those propositions A has publicly committed to in the course of c up to t and which have not (yet) become mutual commitments. The CG, on the other hand, is that set of propositions that have been agreed upon by all participants in c at t together with the propositions that represent the shared background knowledge of the discourse participants” (p.85). Among other things, this allows for participants to negotiate the CG independently of their own public beliefs.

To summarize, the theory in Farkas and Bruce (2010) relies on characterizing several different subcomponents of a given discourse structure K :

1. the **common ground** (CG), the set of propositions all the discourse participants are committed to (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 **projected set** (ps), the set of propositions that are being considered for addition into the CG.

Farkas and Bruce (2010) adopt from Krifka (2001) a particular formulation of illocutionary mood in which it takes a sentence as its argument and outputs a function from input to output context states. The declarative mood D is defined over an indicative sentence S_p , a speaker or author a and a discourse structure K_i ; its output is a discourse structure K_o such that K_o is restricted as in (58-a) (Farkas and Bruce, 2010, 92). (58-a) has been modified slightly for terminological consistency, and I’ve labeled it “to be revised” because I will amend it on the next page to explicitly differentiate between at-issue and not-at-issue content.

$$(43) \quad \text{Declarative operator (i.e. } \mathbf{D} \text{), for sentences } S_p \text{ with at-issue content } p: \\ \mathbf{D}(S_p, a, K_i) = K_o \text{ such that} \quad \textit{(to be revised)}$$

- (i) $DC_{a,o} = DC_{a,i} \cup \{p\}$
- (ii) $T_o = \text{push}(\langle S_p; \{p\} \rangle, T_i)$
- (iii) $ps_o = ps_i \sqcup \{p\}$

Step (i) in (58-a) models the addition of the at-issue content p (the propositional content of the sentence S_p) to the set of propositions representing the speaker’s discourse commitments: those propositions the speaker has publicly committed to during the conversation. Step (ii) in (58-a) represents that the utterance of S_p makes salient the proposition p ; it defines the output stack T_o as the input stack T_i with p pushed on top. Step (iii) represents the illocutionary content of assertion, using the notion of an input (ps_i) and output (ps_o) projected set.¹³ These propositions can then be added to the CG or eliminated throughout the discourse.

Farkas and Bruce’s polar question operator **PQ** takes an interrogative sentence $S_{p?}$ and a discourse structure K_i as its arguments. It raises the issue of whether p by adding p and $\neg p$ to the stack, in (44) (i). It proposes, in (ii), that the interlocutors accept either that p or that $\neg p$ (Farkas and Bruce, 2010, 95).

- (44) *Polar question operator* (i.e. **PQ**) (to be revised)
PQ($S_{p?}, K_i$) = K_o such that
 (i) $T_o = \text{push}(\langle S_{p?}; \{p, \neg p\} \rangle, T_i)$
 (ii) $ps_o = ps_i \sqcup \{p, \neg p\}$

The relevant difference between the two illocutionary moods is that declarative mood introduces a singleton set of propositions, while the polar question introduces a non-singleton. These illocutionary moods, as they’re defined, make predictions about the sort of content an utterance makes salient (e.g. a proposition p) and the sort of effect that utterance has on the common ground, by virtue of what it adds to the projected set. This allows Farkas and Bruce to model discourse anaphora to propositions, as many dynamic accounts do, as well as the discourse effect of question responses (which can result, in part, in the acceptance of projected set propositions to the common ground).

The claim that assertions effectively *propose* to update the CG (instead of directly updating it) comes, as far as I can tell, from Clark 1992 and Ginzburg 1996, and is motivated by the observation that assertions can be denied in discourse in a way that not-at-issue content cannot.¹⁴ As a result, several recent theories have distinguished between at-issue and not-at-issue content by treating the latter as directly updating the common ground.

Murray (2010, 2014) argued that Cheyenne evidentials introduce not-at-issue content; her semantic theory analyzed not-at-issue content as a direct CG update. (See Portner, 2006; AnderBois et al., 2010, 2013, for similar proposals.) We can supplement Farkas and Bruce’s illocutionary mood operators in (58-a) and (44) with Murray’s treatment of not-at-issue content by adding a line that

¹³ \sqcup represents set union minus the elimination of inconsistent propositions (p.90).

¹⁴Another motivation is the intuition that, in asserting that p , a speaker cannot force her addressee to commit to p (Malamud and Stephenson, 2014).

a not-at-issue proposition q directly updates the CG.

- (45) *Declarative operator* (i.e. **D**), for sentences S_p with at-issue content p and not-at-issue content q : (to be revised)
 $\mathbf{D}(S_p, a, K_i) = K_o$ such that
 (i) $DC_{a,o} = DC_{a,i} \cup \{p\}$
 (ii) $T_o = \text{push}(\langle S_p; \{p\} \rangle, T_i)$
 (iii) $ps_o = ps_i \sqcup \{p\}$
 (iv) $CG_o = CG_i \cup \{q\}$
- (46) *Polar question operator* (i.e. **PQ**), for an interrogative sentence $S_{p?}$ with at-issue content $p, \neg p$ and not-at-issue content q :
 $\mathbf{PQ}(S_{p?}, K_i) = K_o$ such that
 (i) $T_o = \text{push}(\langle S_{p?}; \{p, \neg p\} \rangle, T_i)$
 (ii) $ps_o = ps_i \sqcup \{p, \neg p\}$
 (iii) $CG_o = CG_i \cup \{q\}$

From this perspective, encoders of canonical not-at-issue content, like the evidential adverb *allegedly*, add a not-at-issue proposition q to the discourse, and that proposition directly updates the common ground. This is directly parallel to the treatment of Cheyenne evidentials in Murray (2010), and is exemplified in (47).

- (47) Allegedly, John won the race.
results in the output discourse structure K_o such that:
 (i) $DC_{a,o} = DC_{a,i} \cup \{\text{John won the race}\}$
 (ii) $T_o = \text{push}(\langle \text{'John won the race'}; \{\text{John won the race}\} \rangle, T_i)$
 (iii) $ps_o = ps_i \sqcup \{\text{John won the race}\}$
 (iv) $CG_o = CG_i \cup \{\text{It is alleged that John won the race}\}$

In sum, I've adopted the semantic treatment of illocutionary mood in Farkas and Bruce (2010) to form the foundation of the account. It encodes illocutionary mood – at least for declaratives and polar questions – and additionally models salience and discourse commitments, which I'll take advantage of for the formal proposal in §4.2. But while Farkas and Bruce characterize at-issue content as proposals to update the common ground, they do not include an explicit treatment of canonical or descriptive not-at-issue content. I've adapted their account, following Murray (2010), to treat canonical or descriptive not-at-issue content as direct common ground update.

This covers the first two desiderata outlined above: we have in hand a theory that represents illocutionary mood and distinguishes between at-issue and descriptive not-at-issue content. In what follows, I'll supplement this theory further, to accommodate illocutionary content (and thereby to model the meaning of emotive markers).

4.2 Sincerity conditions in an update semantics

Farkas and Bruce (2010) foresee the need to expand their analysis:

“For the matters we discuss here, further additions to context structure such as the agendas of participants or representations of their private doxastic states are not necessary. The model we provide is consistent with expansion in these directions, as well as with additions of finer-grained structures for dealing with anaphoric relations.” (Farkas and Bruce, 2010, 89)

The goal of this subsection is to expand Farkas and Bruce’s framework in just this way. I’ll begin by discussing how we can use their formalism to model speakers’ emotive attitudes; I’ll expand the notion of Discourse Commitments to account for the sorts of content emotive markers can apply to.

4.2.1 The relationship between sincerity conditions and discourse commitments

According to Searle (1969), the utterance of an assertion is conventionally associated with several constitutive rules, one of which is the sincerity condition that the speaker believes the content of the utterance. An utterance that does not satisfy this condition is uttered insincerely; this is one way in which sincerity conditions differ from other constitutive rules, like preparatory conditions. And in fact, it seems appropriate to characterize the utterance of a sentence containing an emotive marker (e.g. *alas*) by a speaker who is not in fact dismayed by its content as an insincere utterance.

We have already seen reason to associate the content of emotive markers with sincerity conditions: their ability to result in Moore’s Paradox. An appealing explanation of Moore’s Paradox is that it results when the speaker denies the content of a sincerity condition on her utterance (Searle, 1969, 65). If emotive markers contribute sincerity conditions – like illocutionary mood does – we would expect that the denial of their content, too, would result in Moore’s Paradox.

Following Searle (1969) (see especially his discussion of promising, p.57), I will assume that this additional sincerity condition effects changes in the essential conditions (i.e. the discourse properties) of the utterance. The essential conditions of an exclamation, then, effectively include “expresses that *S* is surprised that *p*”.

Searle and other Speech Act Theorists have considered sincerity and essential conditions to be properties of a speech act. However, recent dynamic proposals follow Stalnaker (1973, 1978) in characterizing the effect of an utterance on the discourse as a property of illocutionary mood instead (Murray, 2014; Murray and Starr, 2016). Such an approach offers a compositional account of illocutionary mood in a way that still allows it to not fully determine illocutionary force. The current proposal is that we should similarly adapt Speech Act Theorists’ treatment of sincerity conditions: instead of being a property of a

speech act, sincerity conditions are a part of the sentence’s content, introduced by illocutionary mood and emotive markers. If this is right, illocutionary mood and emotive markers – qua illocutionary content – have in common that they restrict a speaker’s Discourse Commitments.

This perspective has the benefit of treating illocutionary mood and emotive markers compositionally, while still allowing for a many-to-many relationship between illocutionary mood and illocutionary force (see, among others, Harnish, 2005). In particular, from this perspective, an utterance of the declarative sentence *Your behavior has, alas, made me angry* can count as a threat when contextual information about the context of utterance supplements the illocutionary content it encodes semantically: namely, that it updates the common ground with the proposition ‘Your behavior has made me angry’ (a contribution of its illocutionary mood); and that its use is licensed when, and thereby signifies that, the speaker is dismayed by that proposition (the contribution of the emotive marker).

Informally, my analysis characterizes emotive markers as restricting the sincerity conditions of an utterance with the requirement that the speaker be surprised, dismayed, etc. (depending on the emotive marker) by that sentence’s descriptive content. The connection between emotive modifiers and sincerity conditions is explicit in Vanderveken (1990), according to whom *alas* expresses “the sincerity condition that the speaker is unhappy with the existence of that state of affairs” (p.128). I will approximate this perspective by using a speaker’s Discourse Commitments to model sincerity conditions.

4.2.2 A recharacterization of discourse commitments

Discourse commitments were initially proposed to address speaker bias in rising declaratives. The original characterization of discourse commitments in Gunlogson (2001) is in terms of beliefs that each participant is publicly committed to: “public in the sense that the participant is mutually recognized as committed to them” (p.42).

- (48) **Discourse Commitments** *(to be revised)*
 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

Harnish (2005) reviews a number of objections to *reducing* illocutionary force to commitments – as Krifka (2014) does in his approach (in which speech acts are typed as “commitment change potentials”) – but the division of labor proposed here side-steps most of these problems. The idea is that what Searle thought of as the speaker’s belief in p is in fact part of the speaker’s Discourse Commitments: in addition to its effect on the Common Ground, an act of assertion

that p publicly commits the speaker to p . There are, technically speaking, differences between Searle’s sincerity condition on assertion (the requirement that the speaker believe that p) and the Gunlogson/Farkas/Bruce characterization of an assertion adding p to the speaker’s set of discourse commitments. This is because publicly committing to a proposition p doesn’t reduce to believing that p (and vice versa).

However, a speaker’s belief that p and her public commitment to p are closely enough related that we can treat public commitment as a proxy for belief – for the purposes of modeling conversation – and additionally use *DCs* to encode the contribution of emotive markers. Specifically, a speaker’s Discourse Commitments are things that the speaker is committed to treating, for the purposes of the conversation, as if she did believe them. In other words: in contexts in which the speaker is being sincere (or in which the hearer assumes the speaker is sincere), the speaker’s publicly committing to p amounts to the speaker’s assurance she believes that p . If this is right, then the assertion operator proposed by Farkas and Bruce (2010) in (45) represents, albeit indirectly, Searle’s sincerity condition on assertion.¹⁵

Recall that Gunlogson defines Discourse Commitments in terms of beliefs: “ p is a public belief of a iff ‘ a believes p ’ is a mutual belief of a and a ” (p42). If emotive markers restrict the sincerity conditions of an utterance, and if emotive markers encode propositional attitudes other than belief, we will need to modify this definition to include other relations between a speaker and a proposition.¹⁶

(49) **Discourse Commitments** *(final)*

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. $\langle \text{believes}, p \rangle$ is a public commitment of a iff ‘ a believes p ’ is a mutual belief of a and b ;
- b. $\langle \text{is-disappointed}, p \rangle$ is a public commitment of a iff ‘ a is disappointed that p ’ is a mutual belief of a and b ; and
- c. $\langle \text{is-surprised}, p \rangle$ is a public commitment of a iff ‘ a is surprised that p ’ is a mutual belief of a and b .

This switch from a set of propositions the speaker believes to a set of pairs of propositional attitudes and propositions is reminiscent of a similar innovation proposed in Portner (2006). Portner proposes an account of speaker certainty markers wherein the set of propositions representing the Common Ground

¹⁵The equivalence is not a perfect one: it’s easy to imagine a situation in which each discourse participant believes that p , and knows the others believe that p , but in which no one wants to publicly commit to p : say, a situation in which the boss has some toilet paper stuck to her shoe. Of course, it’s possible that Discourse Commitments model the sincerity conditions on assertion more accurately than Searle’s does, in which case the differences between public commitment and belief are unproblematic. Arguments to this effect can be found in Asher and Lascarides (2003, 2008); Lascarides and Asher (2009), whose specific approach I do not adopt because, like Krifka (2014), they do not distinguish between force and mood.

¹⁶I notate the contents of DC sets as ordered pairs (instead of as, for instance, the apparently equivalent $\text{believes}(p)$) because it is a natural way to require that all additions to the DC set contain a propositional attitude and a proposition.

is subdivided into those mutually agreed to be true (the traditional Common Ground) and those reported to be true, conjectured to be true, etc.

There are additional proposals to modify update-semantic theories like Farkas and Bruce’s in order to track other components of discourse. In their analysis of the Mandarin discourse particle *ba*, Ettinger and Malamud (2015) model a request for hearer involvement by introducing different sub-parts of Table to designate different levels of speaker commitment to the proposed CG update. And in his recent theory of the semantics of imperatives and modal particles, Portner (2016) supplements this sort of account with a list of priorities. He says (p.14): “just as we must maintain both the common ground and individual commitment slates in our discourse model, we also must keep track of the shared to-do list function and individual participants’ understanding of what priorities each participant is committed to.”

In Farkas and Bruce’s account, the CG is defined independently of participants’ DC sets as “the set of propositions that have been agreed upon by all participants... together with the propositions that represent... shared background knowledge” (p.85). Because this characterization of the CG is independent of participants’ DC sets, the new definition of Discourse Commitments in (49) does not affect the formal model of the common ground. There does, however, remain the question of how and when information encoded in speakers’ DC sets could enter into the CG; I address this at the end of this section.

4.2.3 The formal treatment of emotive markers

To track this change in the characterization of Discourse Commitments, I amend the formulation of the sincerity conditions encoded in declarative mood **D** to include pairs (from (45)):

- (50) *Declarative operator* (i.e. **D**), for sentences S_p with at-issue content p and not-at-issue content q : *(final)*
 $\mathbf{D}(S_p, a, K_i) = K_o$ 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) $ps_o = ps_i \sqcup \{p\}$
 (iv) $CG_o = CG_i \cup \{q\}$

The final component of the analysis is the treatment of emotive markers themselves. I’ll model this account on *alas*, but intend it to be generalizable to, at least, exclamation intonation, Finnish *-pää*, and the mirative interpretation of the Cheyenne mirative evidential (for which the relevant propositional attitude would be something like *is-surprised*).

I define *alas* in the same terms as illocutionary mood in Farkas and Bruce (2010), namely as an operator which takes a clause as its argument and outputs a function from input to output context states.

- (51) *Alas* (i.e. **A**), for clauses S_p with content p : *(to be revised)*
 $\mathbf{A}(S, a, K_i) = K_o$ such that

$$(i) \quad DC_{a,o} = DC_{a,i} \cup \langle \text{is-disappointed}, p \rangle$$

The following section will make more explicit what sort of proposition p is, and will revise the definition in (51) accordingly.

In combination with a sentence's mood – like the declarative mood \mathbf{D} in ?? – the meaning of an utterance containing an emotive marker like *alas* (\mathbf{A}) is modeled as follows.

$$(52) \quad \llbracket \text{Alas, John lost the race} \rrbracket = \mathbf{D}(\mathbf{A}(S, a, w_{\text{@}}, K_i)) = K_o \text{ such that}$$

- (i) $DC_{a,o} = DC_{a,i} \cup \langle \text{believes}, p \rangle$
- (ii) $T_o = \text{push}(\langle S; p \rangle, T_i)$
- (iii) $ps_o = ps_i \bar{\cup} \{p\}$
- (iv) $CG_o = CG_i \cup \{q\}$
- (v) $DC_{a,o} = DC_{a,i} \cup \langle \text{is-disappointed}, p \rangle$

There are several ways in which the definition of emotive markers exemplified in (51) differs from that of declarative mood in (50). First, unlike declarative mood, *alas* does not update the projected set ps , which is how this approach models the assertoric component of declarative mood. Second, *alas* in (51) does not update the Common Ground, which is how this approach models not-at-issue content (cf. (47)). Third, (51) analyzes *alas* as restricting the speaker's DC set with an ordered pair whose first member is the propositional attitude *is-disappointed*, not *believe*. These last two characteristics represent how emotive markers differ importantly from canonical, descriptive not-at-issue content: they update the speaker's Discourse Commitments, rather than the Common Ground. (51) additionally differs in that the proposition p the emotive marker is anaphoric to is less specified than it is in (50) for declarative mood. The nature of this propositional anaphora will be further clarified in the next subsection.

The extent to which Discourse Commitments involve propositional attitudes other than belief is constrained lexically. In this paper, I discuss emotive markers that encode disappointment (e.g. *alas*) and surprise (e.g. mirativity markers); if there is evidence of other emotive markers that encode additional propositional attitudes, they would also be tracked in these Discourse Commitment pairs.

Encoding the content of an emotive marker in a speaker's Discourse Commitments gives us a way of preserving its not-at-issue status while addressing its difference in meaning from that of encoders of canonical or descriptive not-at-issue content. I've argued that DC sets are appropriate for modeling the sincerity conditions of an utterance because they represent the speaker's public commitments, and to be insincere is to falsely commit oneself to something publicly. Searle (1969) and others have argued that the unacceptability of Moorean sentences is best attributed to the conflict of one claim with the sincerity conditions of another; in this framework, according to that perspective, Moore's Paradox results when one claim contradicts that speaker's Discourse Commitments. Evidently, some speakers have intuitions about the difference between contradicting information in the Common Ground and contradicting information in a speaker's DC set; since emotive markers behave like classical Moore's

Paradox cases in this respect, their content should receive the same formal treatment as (other) sincerity conditions.

This characterization of emotive markers accounts for another aspect of their idiosyncratic semantic behavior: their incompatibility with non-declarative mood. (51) is defined only over proposition-denoting clauses; while the descriptive content of a declarative sentence is a proposition p , the descriptive content of a question is a set of propositions (Hamblin, 1971) and, arguably, an imperative denotes a property or some other non-propositional content (Hausser, 1980; Portner, 2004; Murray and Starr, 2016). This definition predicts, correctly, that emotive markers can't apply to a (matrix) question or imperative. It also correctly predicts that (lexical) emotive markers are acceptable in clauses embedded in questions, as (53) shows.

(53) What does Sue, who alas couldn't be here today, think about the proposal?

There's a reasonable perspective from which this isn't stipulative: it's not clear that it's possible to hold an emotive attitude towards a set of propositions. As a reviewer points out, even explicitly encoded speaker attitudes are prohibited in questions, presumably for this same reason:

(54) *Has John arrived on time, which disappointed me?

In contrast, emotive markers are acceptable in tag questions, which are typically associated with propositional content (as well as speaker bias, Ladd, 1981; Romero and Han, 2004; Gunlogson, 2001; Malamud and Stephenson, 2014).¹⁷

(55) Alas, John has arrived on time, hasn't he?

As a result, at least given the characterization of the polar question operator **PQ** in (44), the analysis of emotive markers in (66) predicts that they are unacceptable in questions, or any other construction associated with non-propositional content.

There is additional evidence that this is a fortunate result. Recent work in alternative semantics (Alonso-Ovalle, 2006, among others) and inquisitive semantics (Groenendijk, 2009, among others) have proposed treating certain cases of disjunction as similar to polar questions in just this respect. Alonso-Ovalle (2006), for instance, adopts a Hamblin semantics in which, in certain contexts, disjunctive sentences denote a set of propositions (i.e. multiple alternatives). If these approaches are right, (51) predicts that e.g. *alas* is unacceptable in alternative-projecting disjunctive sentences in just the same way they're unacceptable in polar questions. And this seems to be the case:

(56) a. #(Wow,) John rode his bike or arrived on time!
b. #Alas, John rode his bike or arrived on time.

This is not to say that emotive markers are ungrammatical in a sentence that

¹⁷Thanks to Amy Rose Deal (p.c.) for pointing out the significance of these data.

includes a disjunction, just in those in which the disjunction introduces multiple alternatives. It’s possible, of course, to be disappointed at a single, disjunctive proposition; in a situation in which you learn that John’s family is no longer a two-income family, it is perfectly acceptable to lament *Alas, John lost his job or Mary lost hers*.¹⁸ These sentences differ intonationally in English, and involve distinct lexical items in languages like Egyptian Arabic (Winans to appear).

However, recall that §3.2.1 suggested a possible difference within the class of emotive markers:

- (57) a. *Unfortunately, did John lose the race?
 b. Alas, did John lose the race?

I reported the intuition that, in (57-b), *alas* is anaphoric on the bias of the question (that John lost the race), rather than the content of the question (the set of propositions {John lost the race, John didn’t lose the race}). While accounts that differentiate between these two things semantically (Romero and Han, 2004; Gunlogson, 2001; Malamud and Stephenson, 2014) could explain the data in (57-b) even given the analysis in (66), I currently have no explanation for how two emotive markers could differ in their ability to be anaphoric on a question’s bias.

This paper began with the claim that emotive markers form a natural class within the larger group of encoders of not-at-issue content by virtue of the meaning they encode: in particular, that they behave differently from other encoders of not-at-issue content because they mean what they mean. I can now partially substantiate that claim: emotive markers behave the way they do because they encode not-at-issue information about the speaker’s propositional attitudes. Because the information is about the speaker’s *propositional* attitudes, it is anaphoric on a (single) proposition, and so is incompatible with illocutionary mood associated with more than one proposition, or not associated with any propositions. And because the information is about *the speaker’s* propositional attitudes is represented as his or her public commitment, instead of being automatically introduced into the Common Ground, as evidenced by the ability of emotive markers to participate in Moore’s Paradoxes. This is, arguably, an intuitive way of modeling the apparent differences between descriptive and illocutionary content (and, possibly, Kaplan’s related distinction between descriptive and expressive content).

This formal system, as it’s borrowed from Farkas and Bruce and amended in §4.1, allows for three ways for a proposition to get admitted into the common ground: 1) by direct update (the effect of a descriptive not-at-issue proposition q); 2) when a proposal to add to the common ground is accepted from the projected set by participants (the eventual effect of the utterance of most declarative sentences with at-issue content p); and 3) via the speaker’s DC set. This third route is discussed only briefly in Farkas and Bruce (2010), but it’s especially significant for the present analysis.

If, in the course of a conversation, A asserts that p , an interlocutor B can

¹⁸Thanks to a reviewer for this example.

later presuppose that A believes p , which suggests that A’s belief in p (here, the pair $\langle \text{belief}, p \rangle$), which this theory initially places in DC_A , has at some point been admitted into the CG. Farkas and Bruce refer to this as a “secondary effect” (p.93) and differentiate qualitatively between it and the other two methods of addition to the CG.

The same story can, of course, be told for utterances involving emotive markers: If A asserts that *alas*, p , an interlocutor B can later presuppose that A is disappointed that p . In this same way, the analysis must allow for discourse commitments encoded in emotive markers to be admitted into the common ground. In keeping with Farkas and Bruce’s account, I must insist on a qualitative distinction between the primary CG updates of declarative mood or descriptive not-at-issue content and the secondary CG effects of illocutionary content, to model the principle differences between it and descriptive content. But I have no more concrete proposals than this primary/secondary distinction for doing so.

In the next section, I argue that emotive markers apply to focus-semantic content of at-issue propositions. This will allow for an account of emotive markers’ focus sensitivity, and also provides some explanation for their unique scope-taking restrictions.

4.3 Focus-sensitivity and discourse-anaphoricity

Note that the formal treatment of emotive markers in the previous few subsections allows for the confluence of two semantic properties that are seemingly at odds with each other: it provides a characterization of emotive markers as encoding illocutionary content – thus potentially leading to Moore’s Paradox – while at least in principle allowing for emotive markers to range over embedded content, or to operate at a non-matrix level (which, presumably, illocutionary mood itself cannot, although see Krifka 2001 for a dissenting view). This is because, in this account, emotive markers and illocutionary mood have in common that they add to a speaker’s DC set (and hence encode information about how the speaker is using the utterance in discourse), but differ in that illocutionary mood additionally modifies the CG and the projected set.

The goal of this section is to add one final layer of detail to the analysis of emotive markers in order to address the nature of propositions that emotive markers can range over, and to demonstrate how emotive markers can encode illocutionary content despite ranging over clauses that do not carry their own independent illocutionary mood.

According to (51), when *alas* is applied to a sentence S , it ranges over p , which was defined as the sentence’s content. In the example given in (52), p corresponds to the sentence’s at-issue content. In this section, I further clarify this analysis of emotive markers based on the observations that emotive markers a) are focus-sensitive; b) can apply to content encoded in constructions that are typically associated with not-at-issue meaning; and c) exhibit particular scope restrictions in conditionals. In particular, I will characterize them as discourse-anaphoric to a sentence’s salient proposition.

4.3.1 Emotive markers are discourse-anaphoric

When an emotive marker occurs in a focus-marked sentence, it is focus-sensitive, as demonstrated in (58) and (59).

- (58) a. Alas, JOHN_F got a dog.
 b. Alas, John got a DOG_F.
- (59) a. (Wow,) JOHN_F got a dog!
 b. (Wow,) John got a DOG_F!

I use all caps and a subscript *F* to represent focus-marking. Intuitively, in the (a) sentences above, the emotive markers apply to the proposition that John and not someone else got a dog. In the (b) sentences, they apply to the proposition that John got a dog and not something else.

The meaning of Finnish *pää* can vary in a similar way, but it does so by varying the relative position of *pää* (Karttunen and Kay, 1985; Vallduví and Vilkkuna, 1998).

- (60) a. Minä-pää soitan nyt isoäidille.
 I-PA call-1SG-NON.PST now grandmother
 ‘I_F am calling grandmother now.’
- b. Isoäidille-pää soitan nyt.
 grandmother-PA call-1SG-NON.PST now
 ‘I am calling GRANDMOTHER_F now.’

Finnish has relatively free word order, but *pää* must occur in the highest functional projection of the clause (Zimmermann, 2011), and is therefore typically suffixed to the first phrase in the sentence.

Rooth (1985) introduced focus-semantic values to allow focus-sensitive operators to explicitly manipulate a proposition’s alternatives. If the ordinary meaning of an element α (notated $[[\alpha]]^o$) is type $\langle\sigma\rangle$, the focus meaning of that element (notated $[[\alpha]]^f$) is a set of alternatives to α , type $\langle\sigma, t\rangle$. The alternative set is context-sensitive; the set of focus alternatives C to a proper name like *Mary* could be the set {tom, dick, harry} or it could be the entire domain of individuals.

In later work (1992; 1996), Rooth connected the role of focus-semantic values to discourse coherence and, in particular, question-answer congruence. Roberts (1996) expanded this idea into a larger theory of discourse coherence based on QUDs. In her approach, a conversational move β is congruent to a question $? \alpha$ if the set of focal alternatives to β is identical to the set of Q-alternatives that constitutes the semantics of $? \alpha$ (p24). This definition drives her account of prosodic focus: a focused element β carries the presupposition that it is a congruent answer to the relevant QUD.

Given this connection, the sensitivity of emotive markers to focus suggests that emotive markers are also discourse-sensitive. An intriguing example of this is in (61):

(61) John's tennis coach, *alas* not his dentist, extracted his tooth.

In (61), *alas* is located in an appositive, which constructions are typically analyzed as encoding not-at-issue content. And it appears to be ranging over a proposition that combines the sentence's at-issue and not-at-issue content: namely, the proposition that John's tooth was extracted by his tennis coach instead of his dentist. This raises the question: do emotive markers range over at-issue or not-at-issue content (depending on the construction)? Or is the appositive in (61) encoding at-issue content, despite its status as an appositive?

Snider (2017) offers interesting empirical arguments in favor of the claim that discourse anaphora doesn't track at-issueness one of his examples is in (62):

(62) [Context: Mark is a high school teacher. His parents come to visit during a school assembly. His father is looking around the auditorium, curious about Mark's students.]

Dad: Where are Mark's students sitting?

Mom: Lisa, who is Mark's favorite, is sitting in the front row. He told me that in confidence, though, so don't tell anyone.

The propositional discourse anaphor *that* is underlined. It is ranging over the proposition 'Lisa is Mark's favorite student,' which is encoded in the appositive and clearly not (given the father's question) at-issue, given that it doesn't (partially) address the Question Under Discussion.

Snider's conclusion is that discourse anaphora is instead tied to a more syntactic phenomenon, one that he analogizes to the Formal Link Condition (see also Krifka, 2013). This syntactic sensitivity is illustrated by the variable acceptability of the anaphora in (63).

- (63) a. Kayla Jones, who is an Olympic gold medalist, proposed to her fiancé without telling him that.
b. ?Kayla Jones, an Olympic gold medalist, proposed to her fiancé without telling him that.
c. ??Olympic gold medalist Kayla Jones proposed to her fiancé without telling him that.

There's evidence that emotive markers, too, are discourse-anaphoric, insofar as they can range over propositions that aren't the same as the at-issue content denoted by the sentence or clause they occur in. This is illustrated by the following sequence of sentences, in which the propositional discourse anaphor *that* appears to be ranging over the same proposition as *alas*: namely, the proposition that John's tooth was extracted by his tennis coach instead of his dentist.

(64) John's tennis coach, *alas* not his dentist, extracted his tooth. I learned that when I called John's father to check in on him.

An additional example, modeled off of Snider's example in (62), shows that *alas* and the discourse anaphor *that* have in common the proposition that Lisa

is Mark’s favorite student, which doesn’t need to be at-issue:

- (65) [Context: Mark is a high school teacher. His parents come to visit during a school assembly. His father is looking around the auditorium, curious about Mark’s students.]
 Dad: Where are Mark’s students sitting?
 Mom: Lisa, who alas is Mark’s favorite, is sitting in the front row. He told me that in confidence, though, so don’t tell anyone.

To summarize: emotive markers don’t necessarily range over a sentence’s literal, at-issue content. They are focus-sensitive, and can range over not-at-issue content or some combination of at-issue and not-at-issue content in a way that directly parallels discourse anaphora. This suggests that the analysis in (51) was right to characterize emotive markers as discourse-anaphoric, but the proposition p they are anaphoric to is more appropriately labeled as the sentence’s or clause’s salient proposition. In the present formal implementation, salience is modeled using a Table, or Stack; an utterance makes a proposition p salient when it pushes p to the top of the stack.¹⁹

4.3.2 Refining the range of emotive markers

This means that the definition of emotive markers provided in the previous section must be revised so that it can make reference to the sentence’s or clause’s salient proposition. I do this by endowing emotive markers with the ability to push their own proposition to the top of the stack, as in (66):

- (66) *Alas* (**A**), for clauses C with the ordinary focus-semantic value p : (*final*)
 $\mathbf{A}(S, a, K_i) = K_o$ such that
 (i) $DC_{a,o} = DC_{a,i} \cup \langle \text{is-disappointed}, p \rangle$
 (ii) $T_o = \text{push}(\langle S; \{p\} \rangle, T_i)$

As with the previous version, this characterization of emotive markers predicts its illocutionary mood restriction because it requires that the emotive marker range over a clause with a single salient proposition. Unlike the previous version, this one allows for the possibility that an emotive marker could range over the speaker bias in a polar or tag question, by virtue of the fact that those constructions could make a single proposition salient. However, I still have no way of accounting for the lexical variation between e.g. *alas* and *unfortunately* in this respect (although see Snider, 2017, for a discussion about how salience is gradient, not categorical).

And as with the previous version, (66) predicts that the speaker’s denial of the relevant content will result in a Moore’s Paradox, because the speaker’s emotive attitude is encoded in her Discourse Commitment set, rather than the Common Ground (at least initially).

¹⁹Given that the details of how and when this proposition is decided are complicated, syntactic, and not unique to emotive markers, I will not attempt to address how and why this proposition is fixed; see Krifka (2013); Snider (2017).

Recall that the declarative operator, too, pushes a salient proposition to the top of the stack (from (50)):

- (67) *Declarative operator* (i.e. **D**), for sentences S_p with at-issue content p and not-at-issue content q : *(final)*
 $\mathbf{D}(S_p, a, K_i) = K_o$ 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) $ps_o = ps_i \sqcup \{p\}$
 (iv) $CG_o = CG_i \cup \{q\}$

This analysis, then, predicts that a sentence could contain a declarative mood marker and an emotive marker that each introduce distinct salient propositions. This would happen in just the sort of configuration in which the emotive marker occurs in an embedded clause. A simple such case is shown in (68).

- (68) John, who alas lost the race, won the lottery.

In (68), the emotive marker ranges over the appositive content ‘John lost the race,’ presumably (in part) because it is embedded in the appositive. The matrix sentence as a whole, on the other hand, proffers a different salient proposition, namely ‘John won the lottery’. This is made clear in part by the fact that following (68) up with a sentence containing a discourse anaphor, like *He told me that in confidence*, results in discourse anaphora to the matrix proposition ‘John won the lottery.’

This is arguably part of a larger pattern: when emotive markers occur in an embedded clause, they scope over the embedded clause, rather than the matrix sentence. This is demonstrated by the contrast between (69-a) and (69-b) below (from (38) in §3.2).

- (69) a. Alas, if the mayor is convicted, she must resign from office.
 b. If, alas, the mayor is convicted, she must resign from office.

The definition in (66) accounts for this restriction because it ties the emotive marker to the focus-semantic ordinary value of the clause it occurs in... which is to say, the most salient proposition (the one added to the Table) in the dynamic update the emotive marker participates in. 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. As a result, they are discourse-anaphoric to the proposition denoted by the clause they occur in, not the proposition denoted by the matrix sentence.

However, in contrast to the other properties of emotive markers discussed here, nothing in this account predicts that emotive markers *must* take local scope, by virtue of their meaning. In other words, the analysis in (66) predicts that emotive markers take local scope in embedded clauses because the denotation of the embedded clause is likely to be the most salient proposition in that update. It allows for (but does not account for) at least two types of deviation

from the characterization of the scope of emotive markers made in Section 3.2: emotive markers that can be embedded but, in certain contexts, need not apply to the embedded clause; and emotive markers that cannot be embedded. I'll end by discussing these predictions in turn.

Recall from §3.2 that *alas* differs from other emotive markers in its ability to occur in polar questions (but not constituent questions):

- (70) a. *Unfortunately, did John lose the race?
 b. Alas, did John lose the race?

Intuitively, the emotive marker in (70-b) is not applying to the question itself (nor can it, according to the account here); it is applying to one of the two propositions denoted by the question; in particular, the one to which the speaker is biased, according to work in Romero and Han (2004); Reese (2008), i.e. the proposition that John lost the race.

I cannot account for this difference between *unfortunately* and *alas*²⁰, but this lexical variation is allowed by the current proposal, which specifies that the scope of an emotive marker is the focus-semantic ordinary value of the clause it occurs in. This definition allows, in principle, discourse anaphora to the biased proposition in the denotation of a question, in an account of bias that makes it salient (enough).

Recall also that the Pottsian expressive *damn*, which classifies as an emotive marker when it ranges over propositions, cannot be embedded in conditionals at all:

- (71) *If, damn, the mayor is convicted, she'll have to resign!

This, too, is consistent with the above proposal, although again I do not account here for the lexical variation. For whatever reason, there is some lexical quirk of the expressive *damn* that prevents it from occurring in an embedded clause when it applies to a proposition.²¹ Of course, prosodically-encoded emotive markers, like English exclamation intonation, cannot be embedded. But we have no evidence of an emotive marker which can be embedded scoping over anything other than the proposition added to the Table in the relevant dynamic update.

These observations raise the issue of how to best analyze encoders of descriptive not-at-issue content, like the evidential adverb *apparently*, which necessarily scope outside of their embedded clause. It's likely, given the discussion here, that these operators are less discourse-sensitive than are emotive markers, although

²⁰Although it's been suggested to me that lexical differences between emotive markers are best attributed to diachronic factors; in particular, that *alas* is more distantly related to its adjectival or adverbial roots than *unfortunately* (e.g. *It was unfortunate/*alas that John lost the race*).

²¹I will, however, observe that unlike *alas* and the other emotive markers discussed here, *damn* can occur on its own, without any overt propositional argument. Its possible, then, that this means *Damn, John lost the race!* is better notated as *Damn! John lost the race!* in which case it might differ slightly from the otherwise relatively uniform class of emotive markers discussed here.

it's unclear to me how to best model this difference.

5 Conclusions

In this paper, I've delineated a class elements called 'emotive markers': morphemes or prosody that encode a) the speaker's emotive attitude; b) towards some proposition made salient by the utterance in which they occur; c) in backgrounded, not-at-issue content. I've used emotive markers as a case study for better examining the traditional divide between descriptive and illocutionary (or expressive, in the sense of Kaplan, 1997) content. I've argued that it differs from the recent distinction between at-issue and not-at-issue content: content regarding how the speaker is using the utterance in context. By virtue of the fact that they encode illocutionary content, the meaning encoded in emotive markers, while clearly not-at-issue, differs in several ways from that of encoders of descriptive not-at-issue content, like utterance modifiers, evidential adverbs, appositives, etc.: it is incompatible with non-declarative mood, and it can participate in Moore's Paradox.

I've presented a formal account of emotive markers in which the content they apply to is added to the speaker's Discourse Commitments in the form of an ordered pair, e.g. $\langle \text{disappointed}, p \rangle$. In this account, emotive markers differ from encoders of descriptive not-at-issue content in that the information they encode updates the DC set instead of the Common Ground. And while illocutionary mood restricts the DC set as well – encoding, in the case of declarative mood, the sincerity condition that the speaker believe the content of the utterance – emotive markers differ from mood in this analysis because mood also alters the projected set. I've argued that assimilating the content of emotive markers with the sincerity conditions of illocutionary mood correctly predicts their ability to participate in Moore's Paradox; it also correctly predicts that emotive markers can only apply to clauses that are associated with single propositions.

I've defined the class of emotive markers based on the sort of meaning they encode, but I've demonstrated that they behave as a natural class semantically, as well, and that this behavior holds of emotive markers across languages. As a result, I've argued that emotive markers behave the way they do *because of* the sort of meaning they encode. Because they encode propositional attitudes, they must range over (single) propositions, and in particular, they must range over the most salient proposition encoded in the utterance. I've analyzed this as a particular sort of focus-sensitivity, and I've argued that it explains emotive markers' restriction to declarative sentences (or sentences associated with only one salient proposition) as well as (potentially) their scope-taking restrictions. And because emotive markers encode *the speaker's* propositional attitude, they add information to the speaker's Discourse Commitments, like sincerity conditions do, rather than the Common Ground.

To make these arguments, I've drawn in part from the phenomenon of mirative evidentials: morphemes that have an evidential interpretation in some contexts, and a mirative interpretation in others (in which case they count as

emotive markers). When Cheyenne mirative evidentials act as evidentials, they can occur with non-declarative mood (Murray, 2010; Rett and Murray, 2013). When they act as miratives, however, they cannot. There is currently a debate in the evidentials literature about how to classify evidentials, and this debate is complicated by observations that the compatibility of evidentials with non-declarative mood appears to vary cross-linguistically; in languages like Abkhaz, Baniwa, and Jarawara, evidentials, too, are unacceptable in questions (Aikhenvald, 2004). While there are a lot of open questions about what evidentials are and what they contribute to a sentence, the discussion here offers one possibility of reconciling the observed cross-linguistic differences with respect to compatibility with illocutionary mood. It's possible that, while evidentials in some languages are classified as encoding descriptive not-at-issue content, and thereby update the Common Ground (as they do in Cheyenne; Murray, 2010), evidentials in other languages are classified as encoding illocutionary content about speakers' doxastic states, and thereby update the DC set (as they do, with some important differences, in the account of Cuzco Quechua evidentials in Faller, 2002). In other words, while it's clear that certain aspects of meaning (like the speaker's attitude towards the descriptive content of an utterance) is best encoded as illocutionary content, languages might differ on how other aspects of meaning (like evidence type, or speaker certainty) should be encoded, suggesting that the class of illocutionary content might be to some extent cross-linguistically variable.

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