Semantics and Linguistic Theory
University of Rochester

CHARACTERIZING ILLOCUTIONARY CONTENT

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OUTLINE

1 introduction

2 two types of two types of content

(not-)at-issue content

3 dynamic anaphora to the speech event

event anaphora

speech event anaphora

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illocutionary content as speech-event anaphora

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MY GOALS TODAY

- lots of fine-grained semantic distinctions being made: (not)-at-issue; descriptive/illocutionary
- two types of content traditionally characterized as **illocutionary**:
  (1) illlocutionary mood
  (2) illocutionary modifiers (e.g. *frankly*, emotives like *alas*)
- most treatments of not-at-issue content don't differentiate between illocutionary content and e.g. appositives or conventional implicature;
- those that do either (i) can't model mood **and** modifiers; or (ii) require additional formal assumptions
- my goal is to argue that illocutionary content has in common **discourse anaphora to the speech event**
- this means we can treat all of these semantic distinctions as (different kinds of) CG update
  - I will provide a formal dynamic-semantic account of how this could work
  - and I will argue that we can make certain predictions about how certain illocutionary encoders behave and how they're encoded given this insight
- I'll end by speculating about how this account can extend to other phenomena

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TERMINOLOGICAL SIDEBAR

syntax	clause type	sentence, question, subjectless clause
semantics	illocutionary mood / force	declarative, interrogative, imperative
pragmatics	speech act	assertion, request, command, threat,…

- **clause types** are linguistically specified and limited;
- **illocutionary mood** is linguistically specified and limited (there are only three, Portner 2018);

(1) clause type / illocutionary mood mismatches

a. That's a persimmon? *rising declarative*

b. Does he even care. *rhetorical question*

- **speech acts** are not linguistically specified, and are innumerable
- there are restrictions on which sorts of clause types can carry which sorts of mood marking
- there are arguably no restrictions on which sorts of both can invoke which sorts of speech acts

TWO TYPES OF TWO TYPES OF CONTENT

1. at-issue vs. not-at-issue (Potts, 2012): targetability by truth-conditional operators; direct deniability

   (2) It's false that Minqi ate a salad.

   (3) It's false that Minqi, who is a linguist, ate a salad.

   - multi-dimensional semantics (Potts, 2005; McCready, 2010): separate layers of formalism
   - dynamic update semantics (Farkas and Bruce, 2010; Murray, 2014; AnderBois et al., 2010): direct CG update vs. proposal to update

2. descriptive vs. illocutionary content (Searle and Vanderveken, 1985; Kaplan, 1997): content about the world / content about the utterance
   - illocutionary mood
   - illocutionary modifiers like *frankly* (Extepare, 1997; Ernst, 2009)
   - discourse connectives like *because, why* (Rullmann and Nederveen, 2024)
   - miratives like English exclamation intonation (Rett, 2011; Rett and Sturman, 2021)
   - emotive markers like *unfortunately* (Searle and Vanderveken, 1985; Rett, 2021b)

assuming these form a natural class, how should we model illocutionary content?

ILLOCUTIONARY MOOD

- illocutionary mood seems to semantically classify an utterance
- it is arguably universally marked (Portner, 2018)
- it comes in three and only three varieties
- illocutionary mood displays several properties (Portner, 2018):
  - (i) not iteratable
  - (ii) can't scope under e.g. negation
  - (iii) has a here-and-now ('origo') anchoring
- roughly, three accounts of illocutionary mood/force:
  1. operator-based accounts of "speech acts" (Ross, 1970; Sadock, 1974): 'I hereby assert to you that…'
  2. Krifka (2014, 2023): a dynamic version of operator-based accounts of "speech acts"
  3. dynamic accounts construing mood as update (Gazdar, 1981; Farkas and Bruce, 2010; Murray, 2014; Murray and Starr, 2021)

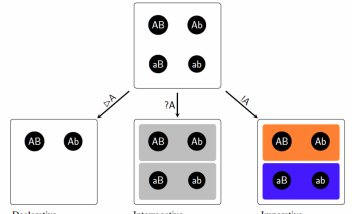

Fig. 4 How Sentential Moods Update Context

ILLOCUTIONARY MODIFIERS

- illocutionary modifiers seem to semantically subclassify an utterance
- illocutionary adverbs (Potts, 2003; Ernst, 2009; Woods, 2014)

  (4) a. Frankly, Rochester is nicer than Los Angeles.
  b. Jessica told Aaron frankly that Rochester is nicer than Los Angeles.

- explanatory modifiers (Extepare, 1997; Mittwoch, 1977; Asher and Lascarides, 2003)

  (5) a. Peter has gone to Florida, in case you want to know.
  b. What's for dinner? because I'm starving.

- variously (depending):
  - emotive markers (Rett, 2021b)
  - expressives (Rett, 2021a)
  - evidentials (Faller, 2002)
  - superlatives (Cohen and Krifka, 2014); *probably* (Greenberg and Wolf, 2017)
  - *still* (Beck, 2016); temporal expressions like *currently*, *now* (Hunter, 2012; Altshuler, 2014)

SEMANTIC PROPERTIES OF ILLOCUTIONARY CONTENT

empirical evidence for the natural class of illocutionary content

- illocutionary content is fundamentally not-at-issue (not targetable by TCal operators, etc.)
- but there is a persistent intuition that it is content about the utterance, not about the world
- and I've argued that there are some diagnostics for illocutionary vs. descriptive content (Rett, 2021b):
  - when descriptive content is denied by the speaker, the result is contradiction; when illocutionary content is denied by the speaker, the result is insincerity, and looks Moore's-Paradoxical (Murray, 2010)

    (6) a. #$_{\perp}$ Allegedly, Jane lost, but no one alleged that she did.
    b. #Unfortunately Jane lost the race, but it's not unfortunate that she did.

  - illocutionary content can be discriminating with respect to illocutionary mood; descriptive content cannot
  - illocutionary modifiers can be anaphoric to different propositions, descriptive modifiers scope wide

    (7) a. It's possible that it will rain, reportedly. *unambiguously matrix*
    b. It's possible that it will rain, unfortunately. *ambiguous, matrix or embedded*

ACCOUNTS OF ILLOCUTIONARY MODIFICATION

- it's relatively easy to imagine how illocutionary modifiers can modify illocutionary mood in the operator-based approaches (Searle and Vanderveken, 1985; Faller, 2002; Rett, 2011)…
- …but these operator-based approaches, infamously, have other notable flaws (Starr and Murray, 2019)
- it's harder to imagine how to model illocutionary modification in the dynamic approaches
  - some: let's explain away non-mood illocutionary content, deny illocutionary content as a natural class
  - Rett (2021b): illocutionary content – including illocutionary mood – modifies the speaker's **Discourse Commitments** in addition to the Common Ground

In combination with a sentence's mood – e.g. the declarative mood D in (49) – the meaning of an utterance containing an emotive marker like *alas* (A) is exemplified as follows.

(51) $[\![\text{Alas, Jane lost the race}]\!] = \mathbf{D}(\mathbf{A}(S, a, K_i)) = K_o$ such that
  (i) $DC_{a,o} = \{DC_{a,i} \cup \{\text{is-disappointed}_a(\textit{Jane lost the race})\}\}$
  $\cup\{\text{believes}_a(\textit{Jane lost the race})\}$
  (ii) $T_o = \text{push}\,(\langle S; \{\text{Jane lost the race}\}\rangle, T_i)$
  (iii) $ps_o = ps_i \cup \{\text{Jane lost the race}\}$

IN SUM

- we've had intuitions, for decades, that some content is **illocutionary** (as opposed to descriptive)
- but there isn't anyone who distinguishes between descriptive and illocutionary not-at-issue content…
- …who can treat illocutionary modifiers on par with illocutionary mood…
- …and who don't require a second sort of formal apparatus to do so

	at-issue *(entailments)*	**descriptive NAI** *(presupps, appositives)*	**illocutionary NAI** *(emotives, expressives)*
multi-dimensional semantics *Potts (2005); McCready (2010)*	Tier 1 composition	Tier 2 composition	
descriptive dynamic update *Murray (2010, 2014) AnderBois et al. (2010); Koev (2012)*	proposal to update CG	direct update to CG	N/A
illocutionary dynamic update *Farkas and Bruce (2010); Rett (2021b)*	proposal to update CG	direct update to CG	update to DC

- an aside from Starr and Murray (2019):
  - What is lost by moving from 'speech act modifier' to 'utterance event' modifier?

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OVERVIEW

- the main argument: illocutionary content is content that is anaphoric to the speech event (either the event itself or to the agent of the speech event)
- I will model this using the following ingredients, (re-)introduced here:
  - **event semantics**;
  - **dynamic** (salience-based) **anaphora** to events;
  - a **start-up update** that introduces the present speech event whenever someone starts using language;
- this allows us to unify treatment of all three types of semantic content (at-issue, descriptive not-at-issue, illocutionary not-at-issue) using the same formal mechanism (the Common Ground)
- in the next section, I'll argue that this approach also makes useful predictions about how the two types of not-at-issue content differ, and what they have in common

EVENT ANAPHORA IN DYNAMIC SEMANTICS

- since the Performative Hypothesis was originally proposed, we've discovered event(ualitie)s as a semantic object (Davidson, 1967; Lasersohn, 1983; Parsons, 1990)

  (8) a. Angela is a forty-year-old, short, brown-eyed American architect dressed in a suit.
  b. Una quickly dug a hole in the ground with a shovel in the rain at night.

- and dynamic semanticists started modeling discourse anaphora:
  - pronouns can corefer with things introduced in another sentence (Karttunen, 1976)
  - this anaphora is licensed by considerations of meaning and discourse coherence (Kehler et al., 2008)

  (9) a. I doubt that Mary has [a car]^{i}. *Bill has seen it$_{i}$.
  b. Bill doubts that Mary has [a car]^{i}. I have seen it$_{i}$.

- and of course the consequent modeling of cross-sentential event anaphora

  (10) a. [The selection of our new CEO]^{e} was a long process. It$_{e}$ took all year.
  b. We [selected a new CEO]^{e}. It$_{e}$ took all year.

INTRODUCTION TO CDRT

- I'll implement the forthcoming proposal in one of many available dynamic formalisms: CDRT (Compositional Discourse Representation Theory, Muskens 1995)
  - I don't need dynamic semantics here, in fact it isn't great for modeling the indexicality I'm after
  - but it's useful for modeling discourse effects like salience/recency, via a Stack
  - (and requires fewer syntactic commitments than static λ calculus)
- template (just as in DRT): [{discourse referents} | {descriptive conditions}]
- implementation of CDRT (to be revised):

example	*A dog bit a cat*
formalism	$[\, x_1, x_2, e, p \mid \mathsf{dog}(x_1), \mathsf{cat}(x_2), \mathsf{bit}(e, x_1, x_2), p = \exists e, x_1, x_2[\mathsf{bit}(e, x_1, x_2)] \,]$

- I include propositional anaphora (Snider, 2017) for reasons that will be clear soon

GOAT UPDATE 1.0

» a paradigm-establishing thought experiment from Stalnaker (1978):

"If a goat walked into the room, it would normally be presupposed, from that point, that there was a goat in the room. And the fact that this was presupposed might be exploited in the conversation, as when someone asks, How did that thing get in here?, assuming that others know what he is talking about. In the same way, when I speak, I presuppose that others know I am speaking, even if I do not assume that anyone knew I was going to speak before I did. This fact, too, can be exploited in the conversation, as when Daniels says I am bald, taking it for granted that his audience can figure out who is being said to be bald." (86)

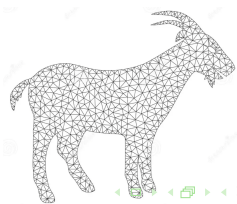
GOAT UPDATE 2.0

various semanticists have seized on this insight to address various phenomena:

- Extepare (1997) proposed a neo-Davidsonian cross-sentential event syntax for illocutionary adverbs and explanatory modifiers, e.g. *frankly*
- Zeevat (2000) used utterance-event-anaphora to model demonstratives like *here*
- Eckardt (2012) used it to model the meaning of "utterance event modifier" *hereby*
- Bittner (2007, 2008) provided the first compositional treatment of anaphora to the speech event
  - Bittner's goal is an account of ϕ-features, tense, and mood in polysynthetic languages like Kalaallisut
  - borrowing explicitly from Stalnaker, she proposes a **start-up update**: "As soon as somebody begins to speak, this very fact is noted, focusing the attention on three default topics" (p10)
    1. the speech world w_0;
    2. the speech event e_0 (with its agent agt *speak.up*); and
    3. the speech time t_0
- Hunter (2010, 2012) and Altshuler (2014) use Bittner's work to model temporal adverbs like *currently*
- Koev (2017) defines a speech context in a dynamic framework to model tense and illocutionary mood

ANCILLARY CONNECTIONS TO GOATS

- lots of others have had adjacent proposals:
  - while they don't contend with anaphora to the (matrix) speech event, Anand and Hacquard (2009, 2014) argue that "assertive attitudes" like *argue*, *say*, *claim*, *imply* refer to "the worlds of the context set that match the goals of the discourse move event" (p77), and gesture towards a model of this reference in the dynamic framework proposed in Farkas and Bruce (2010)
  - Bary and Maier (2021) review a variety of strategies for reporting speech (e.g. reportative mood vs. reportative evidentials), arguing that "[o]nly some types of reporting introduce a speech event into the discourse record" (p3).
  - Egan and Sundell (2022) develop a version of Stalnaker's account where all update is salience- (as opposed to language-)based: "All update is goat update"



UPDATING WITH THE START-UP UPDATE

- initial context: [|]
- I assume the start-up update is initiated as soon as the speaker starts speaking
- the result of updating with the start-up update: [e_0, x_0 | agent(x_0,e_0)]
  - following Muskens (1995), I'm invoking constant discourse referents in addition to variable ones
  - in particular, e_0 is a dref that is constantly mapped to the present speech event across assignment functions
  - reference to speaker is derived from reference to e_0
- a start-up update in CDRT:

example	*A dog bit a cat*
start-up update	[e_0, x_0 | agent(x_0,e_0)]
update with CP	[e_0 x_o, x_1, x_2, e_1, p | agent(x_0,e_0), dog(x_1), cat(x_2), bit(e_1)(x_1, x_2), $p = \exists e_1, x_1, x_2$[bit($x_1, x_2$)]]

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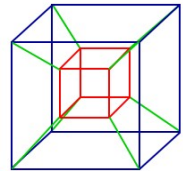
THE PROPOSAL, INFORMALLY



- all illocutionary content is content about the speech event
  - illocutionary mood is necessarily anaphoric to the speech event
  - illocutionary adverbs (like *frankly*) are potentially anaphoric to the speech event
  - emotive markers (like *alas*) are anaphoric to the speaker (qua the agent of the speech event)
- in this way, it is self-referential, and its properties are self-evident
- qua content about the speech event, a speaker denying illocutionary content results not in (descriptive) contradiction, but in something like insincerity or Moore's Paradox (Murray, 2010; Rett, 2021b)
- qua content about the speech event, illocutionary content can be challenged by others, but not via (at-issue) propositional anaphors

MODELING ILLOCUTIONARY MODIFIERS

- in the present account, adverbs take events as semantic arguments, and illocutionary adverbs are anaphoric on the most salient event
  - $x_\top$ is the most most salient x (on the top of the stack), for any type x

(11) $[\![\text{briefly}]\!] = [\ |\ \text{brief}(e_\top)]$

example	*Briefly, she was president*	**stack**	**top**
start-up update	$[\ e_0, x_0 \mid \text{agent}(x_0, e_0)]$	$\langle e_0, \ldots \rangle$	$e_\top = e_0$
update with *briefly*	$[\ e_0, x_0 \mid \text{agent}(x_0, e_0), \text{brief}(e_0)]$	$\langle e_0, \ldots \rangle$	$e_\top = e_0$
update with CP	$[\ e_0, x_0, e_1, x_1 \mid \text{agent}(x_0, e_0), \text{brief}(e_0),$ $\text{agent}(x_1, e_1), \text{president}(e_1)\ ]$	$\langle e_1, e_0, \ldots \rangle$	$e_\top = e_1$

MODELING ILLOCUTIONARY MODIFIERS

- in the present account, adverbs take events as semantic arguments, and illocutionary adverbs are anaphoric to the most salient event
  - $x_\top$ is the most salient x (on the top of the stack), for any type

(12) $[\![\text{briefly}]\!] = [\ |\ \text{brief}(e_\top)]$

example	*She was the president briefly*	stack	top
start-up update	$[\ e_0, x_0 \mid \text{agent}(x_0, e_0)\ ]$	$\langle e_0, \ldots \rangle$	$e_\top = e_0$
update with CP	$[\ e_0, x_0, e_1, x_1 \mid \text{agent}(x_0, e_0), \text{agent}(x_1, e_1), \text{president}(e_1)\ ]$	$\langle e_1, e_0, \ldots \rangle$	$e_\top = e_1$
update with *briefly*	$[\ e_0, x_0, e_1, x_1 \mid \text{agent}(x_0, e_0), \text{agent}(x_1, e_1), \text{president}(e_1), \text{brief}(e_1)\ ]$	$\langle e_1, e_0, \ldots \rangle$	$e_\top = e_1$

SENTENCE-MEDIAL MODIFIERS

- it is of course possible to have illocutionary adverbs anywhere in the sentence

(13)	a.	She was briefly the president.	*topic event only*
	b.	She was, briefly, the president.	*ambiguous*
(14)	a.	She briefly was the president.	*topic event only*
	b.	She, briefly, was the president.	*speech event only*

- the relevant generalization is:
  - sentence-medial illocutionary modifiers modify the topic event
  - unless they're offset by comma intonation
  - in which case they can modify the speech event
- accounting for this variation requires a theory of comma intonation that allows a parentheticalized modifier a broader range of anaphoric options (e.g. Truckenbrodt, 2015)

EMOTIVE MARKERS

- emotive markers encode the speaker's emotions in non-truth-conditional content (Rett, 2021b)
- examples: *alas/(un)fortunately* (Searle and Vanderveken, 1985); exclamation intonation (Rett and Sturman, 2021); expressives (Rett, 2021a)
- in this approach, emotive markers are illocutionary by virtue of their anaphora to the speaker (qua holder of the emotion, qua agent of the speech event)

(15) $[\![\text{alas}]\!] = [\ |\ \text{disappointed}(x_0, p_\top)\ ]$

example	*Alas, she won*
start-up update	$[\ e_0, x_0 \mid \text{agent}(x_0, e_0)\ ]$
update with *alas*	$[\ e_0, x_0 \mid \text{agent}(x_0, e_0), \text{disappointed}(x_0, p_\top)\ ]$
update with CP	$[\ e_0, x_0, e_1, x_1, p \mid \text{agent}(x_0, e_0), \text{won}(e_1)(x_1), p = \exists x_1[\text{won}(x_1)], \text{disappointed}(x_0, p)\ ]$

- the proposition argument is $p_\top$ because it's possible for sentence-initial emotive markers to be cataphoric, especially in questions (which do not themselves introduce a single salient proposition)

ILLOCUTIONARY MOOD

- current dynamic accounts of illocutionary mood (Farkas and Bruce, 2010; Murray, 2014; Murray and Starr, 2021; Starr, 2020) model mood as manipulating the Stack/Table as well as:
  - proposing to update the CG **declarative**
  - partitioning the CG **interrogative**
  - partitioning/updating preferences or to-do lists **imperative**
- in these accounts, the only origo anchoring is in DC sets, to the speaker (Farkas and Bruce, 2010)
- I suggest that mood markers are illocutionary by virtue of the fact that they classify the present speech event (Searle and Vanderveken, 1985)

(16) $[\![\text{DECL}]\!] = [\ |\ p_\top, \text{ASSERTION}(e_\top, p_\top)\ ]$ **declarative mood**

(17) $[\![\text{INT}]\!] = [\ |\ \text{QUESTION}(e_\top, \{p_\top, \neg p_\top\})\ ]$ **polar question mood**

- optionally, we can:
  - have mood markers imply their contribution to the ps/CG, instead of specifying it
  - model speech-act-theoretic speaker epistemic commitments by adding a '$\wedge$ believe$(x_0, p_\top)$' clause for DECL

EMPIRICAL PREDICTIONS

1a. there are illocutionary event modifiers that can associate with other salient events **(event polysemy)** ✓

1b. there are event modifiers that can associate with other *speech* events **(non-self-referential uses)**

2. whether an event modifier is anaphoric to the speech event or the topic event affects its descriptive/illocutionary status, and thereby its semantic properties **(flexible status)**

3. the argument of an event-anaphoric modifier is conditioned by its position in the utterance (cf. its location on the spine)… **(salience sensitivity**)

4. …and for a given sememe (e.g. mirativity), we might be able to tell what type of meaning it encodes based on how it is encoded (prosodically, lexically) **(predictive typology)**

ANAPHORIC VARIATION IN SPEECH-EVENT MODIFIERS

some illocutionary modifiers are anaphoric to any speech event (not just the present speech event)

- illocutionary adverbs can be ambiguous in questions (Woods, 2014, cf. evidential adverbs, like *allegedly*)

  (18) a. Frankly, who was wrong?
  b. Seriously, did Jane get kicked out of the program?

  1. **question use**: associated with the question; speaker-oriented ('I frankly ask, who was wrong?')
  2. **answer use**: associated with the answer; hearer-oriented ('Answer me frankly, who was wrong?')

- we can derive this by modeling interrogative mood as additionally making salient an answer event

  (19) $[\![\text{INT}]\!] = [\ e_1 \mid \text{QUESTION}(e_\top, \{p_\top, \neg p_\top\}), \text{ANSWER}(e_1, e_\top)\ ]$

- we would predict the polysemy is less available for non-sentence-initial modifiers
- and this is what we see: in both questions in (20), the illocutionary adverb unambiguously associates with the answer, not the question

  (20) a. Who, frankly, was wrong?
  b. Did Jane get kicked out of the program, seriously?

FLEXIBLE ILLOCUTIONARY STATUS

- this account predicts that event-anaphoric modifiers will encode illocutionary content when anaphoric to the speech event, and descriptive content when anaphoric to the topic event
- and this is what we see:

(21) A: Briefly, Pia couldn't attend because she was an employee of one company that…
B: #That's not true, that wasn't a brief explanation!
B′: Well that wasn't brief.

(22) A: Pia couldn't attend because she was an employee briefly of one company that…
B: That's not true, she wasn't (merely) briefly an employee!
B′: #Well that wasn't brief.

- this is a prediction that isn't captured by my (2021b) account, nor (as far as I know) any speech-act-modifier approach (Searle and Vanderveken, 1985, e.g.)…
- …and is notably in harmony with approaches that model projection and access to truth-conditional operators as discourse-dynamic (Roberts et al., 2009)

PARASYNTACTIC EFFECTS

despite the fact that the start-up update is introduced contextually (i.e. as goat update), as opposed to syntactically, we predict certain top-of-the-spine effects

1. clause-initialness conditions interpretation: we expect event-polysemous modifiers to have their interpretation conditioned by linear proximity to the start of the utterance
   - we've already seen this is true for English…
   - (… but is it also true for left-branching languages?)
2. Cinque-Hierarchical effects (Cinque, 1999): depending on our theories of diachrony/processing, we might expect phrases that encode certain meanings to require certain proximity to the utterance start

   (23) a. Frankly, unfortunately, apparently Sonia died.
   b. *Apparently, unfortunately, frankly Sonia died.
   c. *Unfortunately, frankly, apparently Sonia died.

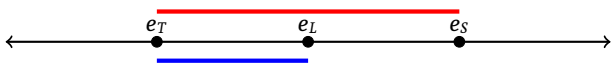
   - *frankly* modifies e_0 directly;
   - *unfortunately* modifies it indirectly, by invoking the speaker;
   - *apparently* doesn't modify it at all

EVIDENTIAL TENSE/ASPECT MARKERS

- many languages have markers that mingle tense information with evidential information (Izvorski, 1997)

(24) Ivan (e) celuna -l Maria. *Bulgarian* (Koev, 2017)
Ivan (be.3SG) kiss -EVID Maria
'Ivan has kissed Maria (direct).' *or* 'Ivan kissed Maria (indirect).'

- learning time/event theories (Nikolaeva, 1999; Lee, 2013; Smirnova, 2013; Koev, 2017; Johnson, 2022):
  - tenses relate the topic event to the speech event
  - tense evidentials relate the topic event to the **learning event**



- Smirnova (2013): the evidential encodes relative tense, requiring temporal overlap or non-overlap
- Koev (2017): the evidential encodes relative tense in an event relation, requiring learning-event spatiotemporal distance correspond to topic-event temporal distance
  - present-tense interpretation (present tense, direct evidence): $\tau(e_T) \circ \tau(e_S) \wedge e_T \circ e_L$
  - past-tense interpretation (past tense, indirect evidence): $\tau(e_T) < \tau(e_S) \wedge e_T \triangle e_L$

MIRATIVE EVIDENTIALS

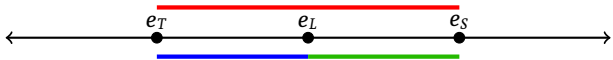
- these morphemes are also co-opted to mark mirativity

  (25) Maria piše -la kniga. *Bulgarian* (Smirnova, 2013)
  Maria write -EVID book
  'Maria was writing a book (indirect).' *or* 'Maria is writing a book!'

- unlike the non-mirative present-tense interpretations of these constructions, the mirative readings do not carry an evidence requirement/implicature
- mirative meanings of evidential tenses are best triggered by (DeLancey, 2001):
  - present tense
  - second person
  - imperfect aspect
- Rett and Murray (2013) observe the 'Recency Restriction' in mirative evidentials: a construction containing a mirative evidential is only felicitous if it is uttered close to the learning event
- Koev (2017): "I will not try to offer an account of the Bulgarian evidential that also captures its mirative uses. Such an account is not easy to come up with, since it would need to reconcile the distancing effect of evidential uses with the compatibility of mirative uses with a direct information source."

A THREE-WAY EVENT POLYSEMY

- my suggestion: in mirative contexts, the evidential morpheme relates the **speech** and learning events, instead of the topic and learning events (with tense, evidentiality, and mirativity)



- below is an adaptation of Koev's account (with one justified simplification, cf. also Smirnova 2013):
  - present-tense interpretation (present tense, direct evidence): $\tau(e_T) \circ \tau(e_S) \wedge e_T \circ e_L$
  - past-tense interpretation (past tense, indirect evidence): $\tau(e_T) < \tau(e_S) \wedge e_T \triangle e_L$
  - mirative interpretation (present tense, recency restriction): $\tau(e_T) \circ \tau(e_S) \wedge e_S \circ e_L$
- the status of the encoding meaning changes with respect to which event it's anaphoric to:
  - the evidential interpretation (about the topic event) is descriptive not-at-issue;
  - the mirative interpretation (about the speech event) is illocutionary not-at-issue
- if tense evidentials are mirative via a learning-event relation, we might predict (a **predictive typology**):
  - miratives encoded in t/a markers or verb particles only have a sudden realization or new information reading;
  - miratives encoded in prosody or sentence particles have a wide range of possible readings (AnderBois, 2018)

OUTLINE

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2 two types of two types of content

(not-)at-issue content

3 dynamic anaphora to the speech event

event anaphora

speech event anaphora

4 the proposal

illocutionary content as speech-event anaphora

empirical predictions

event polysemy: a case study

5 extensions & conclusions

empirical extensions

summary & conclusions

A NOTE ON DISCOURSE COMMITMENTS

- Discourse Commitments were innovated to model contingent or tentative speaker commitment:
  - rising declaratives (Gunlogson, 2001);
  - tag questions (Malamud and Stephenson, 2014);
  - discourse particles like *ló* in Singaporean English (Henderson and Ngui, 2020) and other languages
- their proposal is that we keep track of three things, instead of two:
  1. the Stack/Table;
  2. the Common Ground, and
  3. interlocutors' Discourse Commitments, i.e. the propositions everyone has publicly committed to over the course of the interaction
- the trick is about what happens to discourse commitments once they're introduced
  - evidence we want them to remain separate from the CG: A utters p, B utters $\neg p$
  - evidence we want them added to the CG eventually: B can presuppose A thinks that p
  - Farkas and Bruce (2010): epistemic commitments can get moved from a DC set to the CG after a while
- ...and how to model markers that seem to modify hearers' commitments/goals

REPLACING DISCOURSE COMMITMENTS?

- can we entirely formally replace Discourse Commitments?
- (what is a Discourse Commitment set, if not a record of speech events?)
- a straightforward application of DC sets is tentative commitment
  - the def. of DECL in (16) as both proposing p and modifying e_0 captures this bipartite contribution
- a less straightforward application of DC sets is to modify other interlocutors' (projected) discourse commitments (Malamud and Stephenson, 2014; Henderson and Ngui, 2020)
  - this, too, is translatable; a particle could modify e_0 to be an assumption that the speaker agrees, etc.
- so it seems possible that speech-event anaphora can do all of the empirical work that DCs do (namely, a place to track public, asymmetric, non-assertoric commitment)
- but has the benefit of doing it:
  - in line with the treatment of other phenomena
  - with no additional levels of formalism
  - with an intrinsic (instead of stipulated) connection between content and discourse effect
  - and without the need to define metasemantic rules modulating the relationship between the CG and DC sets

SUMMARY

I've argued we only need one dimension in our semantics to model illocutionary content, and we don't need Discourse Commitments

	at-issue *(entailments)*	**descriptive NAI** *(presupps, appositives)*	**illocutionary NAI** *(emotives, expressives)*
multi-dimensional semantics *Potts (2005); McCready (2010)*	Tier 1 composition	Tier 2 composition	
descriptive dynamic update *Murray (2010, 2014) AnderBois et al. (2010); Koev (2012)*	proposal to update CG	direct update to CG	N/A
illocutionary dynamic update *Farkas and Bruce (2010); Rett (2021b)*	proposal to update CG	direct update to CG	update to DC
speech event dyn. update *present proposal*	proposal to update CG	direct update to CG *(anaphoricity to speech event or not)*	

SUMMARY

- illocutionary content is a natural class: it is content that is anaphoric to the present speech event
  - either directly; or
  - indirectly, via anaphora to the present speaker
- the speech event is added to the stack via a routine, and independently-motivated, start-up update
- some interesting predictions that I believe are novel and unique to this account:
  - encoders of illocutionary content can polysemously modify descriptive content, too
  - and encoders of illocutionary content can polysemously be anaphoric to other speech acts
- a big prediction that I've hinted at: correlations between update position (cf. position on the spine) and semantic properties
  - a predictive typology of sememes: we might know what a marker means based on how it's encoded
  - it might also give us insight into the Cinque hierarchy (at least part of it)

FUTURE DIRECTIONS

- lots of phenomena have received a speech-event treatment, in other frameworks: Extepare (1997); Bittner (2007, 2008); Hunter (2010); Altshuler (2014); Egan and Sundell (2022)
- lots of phenomena are ripe for one:
  - performatives (cf. Eckardt, 2012) and indirect-speech connectives (cf. Asher and Lascarides, 2001)
  - Cruschina and Remberger (2018) provide a syntactic account of speaker-oriented complementizer constructions (e.g. *Claro que sí!*); a semantic account seems well-served by speech-event anaphora
  - a more exhaustive account of the TAM $\sim$ evidential $\sim$ mirative polysemy (Smirnova, 2013; Koev, 2017)
- and I'm particularly interested in investigating the relationship between certain higher-level emphasis strategies and their relation to (other) illocutionary content
  - Beltrama (2018) provides an analysis of intensifiers like *really, totally* and their ability to modify the speaker's commitment to the utterance
  - Zimmermann (2018) does the same thing for the German *schön* ('already'), which has a discourse use that looks a lot like verum focus

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References are on the handout !

SIDE BAR: (STANDARD) INDEXICALITY

- if content is illocutionary due to its reference to the speech event, are all indexicals illocutionary?
  - person features (e.g. on pronouns) need to know who's talking
  - tense (and aspect) features need to know when the utterance is taking place
  - modals need to know in what world the utterance is being made
- 'illocutionary' is a type of content, but indexicals are expressions (and can contribute to any type of content)
- but! there's evidence that demonstratives can refer to speech events, e.g. *That was rude*
- and there's evidence that (pure) indexicals, too, can be variably anaphoric to the speech event
  - first-person isn't always speaker-oriented (cf. *I myself*, Nunberg 1993)

    (26) *(said by a condemned prisoner:)* I am traditionally allowed to order whatever I like for my last meal.
  - present-tense isn't always utterance-time-oriented (cf. *currently*, Altshuler 2014)

    (27) I asked whether he would currently judge them to be fact.
  - present tense participates in embedding phenomena like double access; temporal adverbs do not