The Landscape of Speech Reporting[*]

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Abstract Languages offer various ways to report what someone said. There is now a vast but heterogeneous literature on speech report constructions scattered throughout the semantics literature. We offer a bird's eye view of the entire landscape of reporting and propose a classification along two dimensions: at-issue vs. not-at-issue, and eventive vs. non-eventive. For instance, direct quotation is at-issue eventive, while reportative evidential markers in languages like Cuzco Quechua or Gitksan, as well as some uses of evidential verbs (e.g. Dutch *schijnen* 'seem') are not-at-issue non-eventive. Moreover, we argue that so-called quotative evidentials are not-at-issue eventive, as are parenthetical reports and reportative mood constructions in German and Ancient Greek. Examples of the remaining category, at-issue non-eventive, are harder to come by. We suggest that English *according to* fulfills the requirements.

keywords: reported speech, evidentiality, events, not-at-issue content

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1 Introduction

We often refer to what other people have said. And we do so for a variety of different reasons, and using a variety of different linguistic structures. This ranges from the use of free indirect discourse or direct quotation to vividly represent entire (fictional) dialogues, word for word, to the use of evidential modals or moods to hedge one's commitment to a proposition by indicating that that proposition is based on hearsay evidence.

(1)   a.   Mary looked up and then turned to John. "Watch out," she whispered, "here they come. . ."   [direct discourse]

      b.   Someone was yelling at me. What the hell did I think I was doing!   [free indirect discourse]

      c.   She told him that he was being paranoid.   [indirect discourse]

      d.   sin-hun=<u>g</u>at   John ky'oots
        hunt-fish=REP *John yesterday*
        'John went fishing yesterday, I'm told.'
            [reportative evidential, Gitksan, Peterson 2010]

      e.   Marie schijnt zwanger te zijn.
        Marie seems pregnant to be.
        ' Mary is ill, I hear.'   [reportative modal, Dutch] [1]

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1 Unattributed examples are our own. Dutch examples represent our native judgments, German and English are usually adaptations of googled examples, checked with a native speaker. Gitksan original

f.   Sie sagte sie habe keine Zeit. Sie müsse noch 86 Prüfungen bewerten.
    She said she have-SUBJ no time. She must-SUBJ still 86 exams grade
    'She said she has no time. She still has 86 exams to grade, she said'
    ⌈reportative subjunctive, German⌉

g.   According to Theresa May, any extension of Article 50 will have to be a short, one-time-only deal.

The constructions exemplified in (1) have all received significant amounts of attention, but from different, partly overlapping corners of semantics. Although there are partial attempts at unification among these and other linguistic phenomena – e.g. analyzing free indirect discourse as direct or indirect discourse, and those in turn as attitude reports or demonstration, or analyzing German reportative moods or modals as reportative evidentials, and those as conventional implicatures – there is little attention to the general overarching category of speech reporting.[2] In this paper we propose to zoom out and survey the entire landscape of speech reporting. Our first aim is to bring some order to the scattered body of data and theories about these various reporting constructions. We do this by proposing a classification of reports along two dimensions: at-issue vs. not-at-issue and eventive vs. non-eventive.

In section 2 we propose a number of linguistic tests to tease apart the four different combinations (from at-issue eventive to not-at-issue non-eventive) and discuss examples of report strategies exemplifying each. For instance, direct quotation, as in (1a), is eventive at-issue because it describes a specific speech event, and the existence of that speech event can be easily challenged and doesn't project when embedded. On the other end of the spectrum we'll classify, for instance, reportative modals, like Dutch *schijnen* in (1e), as non-eventive not-at-issue, because they do not introduce or presuppose a specific speech act, and their reportative meaning component, e.g. that the speaker was told Marie was pregnant in (1e), has the status of a not-at-issue supplement (e.g. it doesn't address the Question-under-Discussion). Between these two extremes we classify for instance German and Ancient Greek reportive moods as not-at-issue eventive, and English *according to* as at-issue non-eventive. Roughly the various report phenomena exemplified in (1) inhabit the following four corners of the entire landscape of speech reporting:[3]

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data are based on Bary's fieldwork. To avoid confusion, in contrast to English *seem*, Dutch *schijnen* plus infinitive is limited to reportative uses.

2 For a recent plea for the emancipation of reported speech as a genuine linguistic category, see Spronck & Nikitina 2019.

3 This is just a preliminary sketch. For instance, we'll see in 5.2 that indirect discourse has both at-issue an not-at-issue uses.

(2)

	eventive	not-eventive
at-issue	direct discourse (1a), free indirect discourse, (1b), indirect discourse (1c)	*according to* (1g)
not-at-issue	reportive moods (1f)	reportative evidentials (1d), reportative modals (1e)

Our primary aim in this paper is not to introduce a completely new semantic theory of Gitksan evidential marking, nor to provide new data on Dutch parenthetical indirect discourse, nor to formulate a new linguistic test for not-at-issueness – although we do bring up new data here and there, and we offer some novel modifications and syntheses of semantic theories and tests – but to survey the entire landscape of speech reporting, bringing together previously isolated areas of interest in semantics, investigating what they share, and how exactly they differ. This does lead to genuinely new insights, for instance on the nature of quotative evidentials and reportative moods (viz., that they are both eventive, and hence semantically more like some types of direct and indirect speech, than like reportative evidentials and modals).

A note on notation

We end this introduction with a short remark about our notation and general semantic formalism. Throughout the paper we'll be using a rather traditional, two-stage setup, where natural language expressions are translated into formulas, which in turn can be interpreted in a model and used to update the common ground. For the formal language we use a standard higher-order, intensional, typed lambda calculus, with indexicals. Basic types are e (entities), v (eventualities), s (possible worlds), and t (times). We'll use explicit quantification over individuals, events, and times, but not possible worlds – for intensional constructions we use $^{\wedge}\varphi$ to denote the possible worlds proposition expressed by φ.

We'll denote the translation of a natural language expression into formal meta-language with $\leadsto$ or $\mathbb{T}$, as in, $\mathbb{T}(\text{happy}) = happy_{et}$. Subscripts indicate the type of an expression, but are typically omitted. Expressions in the formal language are model-theoretically interpreted relative to a context c (an agent–world–time triple), an index w (world–time pair), and an assigment function f: $[\![happy(i)]\!]_w^{c,f} = 1$ iff $[\![i]\!]_w^{c,f} \in [\![happy]\!]_w^{c,f}$ iff $agent(c) \in \{x \mid x \text{ is happy in } w\}$.

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2   A typology of speech reports

In this section we introduce the tests that we use to diagnose at-issueness and eventivity. As we will see, for some tests both dimensions are relevant.

2.1   At-issue vs. not-at-issue

Information conveyed by natural language utterances is structured in certain ways. Not every bit of linguistic information is presented equally. Some information is more directly relevant to the communication at hand, other information is merely supplementary to that, and language has a variety of tools to mark such distinctions. There are broadly speaking two schools of thought on the nature of the at-issue vs. not-at-issue distinction. The lexical/conventional approach builds the distinction right into to the semantics of certain lexical items or constructions (Potts 2005, Murray 2010, 2017). The pragmatic approach on the other hand tries to derive it from the global structure of the surrounding discourse (Simons et al. 2010). For the purposes of this paper, we'll partly opt for a lexicalist implementation of not-at-issueness: some constructions conventionally mark some of their content as at-issue and some as not-at-issue.[4] This choice is not only relevant for the actual semantic implementation in section 4, but also for our discussion of certain tests in this section.

   Diagnostics for establishing that something is at-issue typically involve interpretation under embedding, challengeability, and question-answering (see Tonhauser 2012, Murray 2010, 2017, among others).

   To start with interpretation under embedding, we can say that expressions that are syntactically embeddable and that in such environments are also interpreted in situ are at-issue (going back to ideas in Potts 2005). Consider the contrast in (3):

(3)   a.   Als Piet volgens   Jan ziek is, dan is hij ziek.
          If   Piet according to Jan ill   is then is he ill
          'If Piet is ill according to Jan then he is ill'
      b.   #Als Piet ziek schijnt te zijn, dan is hij ziek.
          If   Piet ill   seems to be,   then is he ill.
          'If Piet is reportedly ill, then he is ill.'

An utterance of (3a) may be perfectly felicitous. It only has a reading where *volgens Jan* 'according to Jan' is interpreted in situ, that is in the antecedent of the conditional (≈ 'if Jan said that Piet is ill, then he is ill'). By contrast, (3b) does not allow such an in situ reading of the reportative modal *schijnen* (i.e., something like 'if someone

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4 This is not to say that all not-at-issueness is to be lexically implemented. In section 5 we'll see pragmatic sources of backgrounding at work in speech reports.

said that Piet is ill, then he is ill').[5]

Note that we're not claiming that the absence of in situ interpretation entails that the reportative information is necessarily not-at-issue. Other factors may be at play to exclude syntactic embedding or embedded interpretations (e.g. morphosyntactic reasons for evidentials in Cheyenne, Murray 2010: 66). Our claim is only the other way around: what can be interpreted under the scope of operators is at-issue. Thus, as for (3) we can say that the reportative contribution of *volgens Jan* ('according to Jan') is at-issue. Our proposed test is inconclusive with respect to *schijnen* ('seem').

A second caveat: we'll exclude overt speech reports from the class of possible embedding environments for diagnosing at-issueness. Semantic research has shown over and over again that speech reports are special as embedding contexts in that they allow for embedded occurrences and interpretations of more elements than other contexts (e.g. attitudinal particles (Döring 2013), appositives (Amaral et al. 2007), indexicals (Schlenker 2003), long-distance reflexives (Solberg 2017)).[6] This makes that, although the interpretation of reportative markers in full speech reports is a very interesting topic (see e.g. Korotkova 2013, Schwager 2010, and also our Anaphoricity Test below), it cannot be used to tease apart at-issue and not-at-issue contributions. For this reason we'll stick to embeddings under negation and conditional antecedents for this test.

To summarize:

> **In Situ Interpretation Test**: if a reportative expression is syntactically embeddable (e.g. in the antecedent of a conditional) and in such environments interpreted in situ, the reportative meaning component it introduces is at-issue.

The next two tests are both based on the distinctive behavior of not-at-issue content in dialogue. Simons (2007) uses question-answering to bring out the 'main point status' of the reported proposition in some report constructions. The idea behind this diagnostic is that in a felicitous discourse the Question under Discussion (QUD) must be addressed by a subsequent discourse move, but the answer cannot be provided by a proposition that is lexically or grammatically marked as not-at-issue (Simons et al. 2010). In other words, B's answer in (4) is felicitous because its main clause, the at-issue contribution, that Mary is ill, gives a partial answer to the question why Mary and Sue aren't here. The B' answer is infelicitous because the information that would answer the question is conveyed by a supplemental appositive relative clause, while the main clause content, which is at-issue, doesn't answer the question (see also e.g. Anderbois et al. 2010.)

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5 Although seemingly grammatically well-formed, (3b) doesn't really have any sensible interpretation, as far as we can tell.

6 See also Krifka (2014) for an account of the special status of speech reports as embedding environments, and Korotkova (2013) for an application of these ideas to the case of evidentials.

(4)   A: Why are Mary and Sue not here?
        B: Mary, who likes to come to these meetings, is ill.
        B': #Mary, who is ill, likes to come to these meetings.

Following ideas in Koev (2012), Murray (2017), and Snider (2018) among others, we turn this reasoning into a test to establish whether a component is lexically marked as not-at-issue. In this section, where we are interested in distinguishing different kinds of speech reporting constructions, we will focus on the at-issueness of the reportative component. We return to the at-issue status of the reported component in section 4. We determine the (not-)at-issueness of the reportative proposition by looking at a context where speaker A asks B explicitly about her evidence, thereby making this the QUD. In such contexts the answers in (5Ba) - (5Bc) are infelicitous, even though they entail that someone said that Mary is ill, which would in principle answer the QUD. We take this to show that the reportative components are necessarily not-at-issue. By contrast, the answer in (5Bd) is felicitous, showing that here the reportative component is at-issue.

(5)   A: What makes you think that Mary is ill?
        B: a. #Allegedly, she has the flu.
            b. #Ze schijnt griep te hebben.
                she seems flu   to have
                'She has the flu, reportedly'   [Dutch]
            c. John said/told me that Mary has the flu.
            d. According to John Mary has the flu.

We confirmed this pattern for reportative enclitic *gat* in Gitksan, an evidential language in the strict sense of Aikhenvald (2004).[7] (6B) does not provide a felicitous answer to (6A), which shows that the reportative proposition is not-at-issue.

(6)   A: #gu gan   ha'niigood-in win   sin-hun=s   John ky'oots?
           what REAS *think.*2SG.II COMP *hunt-fish*=PN *John yesterday*
           'Why do you think John went fishing yesterday?' / 'What's your evidence to think that John went fishing yesterday?'
        B: sin-hun=gat   John ky'oots.
           hunt-fish=REP *John yesterday*
           'John went fishing yesterday, I'm told.'

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7 Gitksan is a First Nations language of northwestern British Columbia, Canada. The consultants were first asked to translate the individual English sentences into Gitksan and were then given the dialogues in (6) and asked whether these were ok. According to our consultant, felicitous answers to A' would be sentences like *he packed his net*, *he shouldered his gaffhook*, *he carried his rod and reel*. Abbreviations (also for (8)): COMP = complementizer, DM = determinate marker, DUR = durative, FOC = focus, NEG = negation, PN = proper noun connective, REP = reportative.

The questions in (5) and (6) probe for at-issue speech reports, irrespective of whether they are eventive or not. In the literature other questions have been used as well to test at-issueness in a backward looking way (that is, by looking at the kind of questions a construction can answer, or, more generally, by looking at the kind of moves it can follow). In 2.2 we argue that some of these questions ask for answers whose reportative component is both at-issue and eventive and thus do not test for at-issueness per se.

In sum:

> **What-Makes-You-Think-Test**: if a sentence of the form '[reportative expression] + p' is always infelicitous in answering a question of the form *what makes you think that p?*, the reportative meaning component is lexically/grammatically marked as not-at-issue.

Challengeability gives us the same picture but is forward-looking rather than backward-looking: it looks at what are potential next moves, more specifically whether or not the reportative component can be challenged by another discourse participant.[8] In direct and indirect discourse this component is easily challenged. In fact, when responding to a canonical report we can in principle challenge either that such a saying event took place, as in B, or we can challenge the embedded proposition, B':

(7) A: She said {"I'm innocent"/ that she was innocent}
     B: Nonsense, she may be innocent, but she would never say that.
     B': Nonsense, she's guilty, regardless of what she told you.

By contrast, for reportative evidentials a denial targeting only the reportative proposition is impossible, or at least much more difficult.[9] This is illustrated for the Gitksan reportative *gat* in (8).[10]

(8) A: sin-hun=gat   John ky'oots
         hunt-fish=REP *John yesterday*
         'John went fishing yesterday, I'm told.'
     B: nee=dii   hogyax̱-t. nee=dii   sin-hun=t   ky'oots.
         NEG=FOC *correct*-3.II NEG=FOC *hunt-fish*=DM *yesterday*

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8 This test is a pretty standard diagnostic for at-issueness, but has recently been criticized by Koev (2017a), Koev (to appear), Korotkova (2016) and Snider (2018).

9 In a discourse, more explicitly targeted challenges can always be communicated ('what you say is based on the assumption that you have hearsay evidence, and although I agree that Mary is ill, your assumption is incorrect') are always possible. In fact, different ways of challenging may lead to different results. We leave this for future work.

10 As for B', where the evidential proposition is targeted, a consultant remarked 'It's fine but you're just contradicting yourself.'

'That's not true. He didn't go fishing yesterday.'

B': #nee=dii   hogya<u>x</u>-t.   gya'a-n   win   sin-hun=s   John ky'oots.
NEG=FOC *correct*-3.II *see.*2SG.II COMP *hunt-fish*=PN *John yesterday*

'That's not true. You saw John fishing yesterday.'

Similar observations have been made about, for example, Cuzco Quechua (Faller 2014), Cheyenne (Murray 2009), and Turkish and Bulgarian (Korotkova 2016). The pattern extends to some other varieties of reporting. For instance, with the Dutch reportative *schijnen* an interlocutor may challenge the reported proposition, as in B's objection in (9), but not just the reporting, as in B':

(9)   A: Anne schijnt ziek te zijn.
           'Anne is ill, reportedly.'
      B: Onzin. Ik weet niet wat je gehoord hebt, maar ze is kerngezond.
           'Nonsense. I don't know what you heard, but she's very healthy.'
      B': #Onzin. Niemand heeft dat beweerd, ook al is ze misschien wel ziek.
           'Nonsense, nobody said that, though she might be sick.'   [Dutch]

An English example to make the same point:

(10)   A: Allegedly, Mary is ill
        B: #That's false, even if she were, I'm sure you wouldn't have heard about it.

> **Challengeability Test**: if the reportative component of a sentence cannot straightforwardly be challenged without thereby also challenging the reported content, the reportative component is not-at-issue. Otherwise it is at-issue.

This concludes our test battery for distinguishing at-issue from not-at-issue speech reports. In the next section we will propose tests to distinguish eventive from non-eventive speech reports.

2.2   Eventive vs. non-eventive

Eventivity is characterized by reference to a speech event. We can linguistically probe for the speech event variable by trying to manipulate it. A first way to do this is by modification.

(11)   a.   Two days ago Juan whispered to Toshi, in his deep voice, that it was over.

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b. Two days ago Juan whispered to Toshi in his deep voice 'It's over'.

As an example that fails this test consider Dutch *schijnen*, the reportative modal *zou* and the German subjunctive:

(12)   a. #De relatie   schijnt met zware stem voorbij te zijn.
              the relationship seem   with deep voice over   to be
              # 'The relationship was over, reportedly with a deep voice.'   [Dutch]
        b. Jan zou   gisteren   ziek zijn geweest.
              Jan would yesterday ill   have been
              'Jan was reportedly ill yesterday.'   [Dutch]
        c. Marie wäre   gestern   krank.
              *Marie be.*SUBJ *yesterday ill*
              'Marie was reportedly ill yesterday'   [German]

While in (11) the speech event can be modified by a series of modifiers (*two days ago*, *to Toshi*, *in a deep voice*), in (12) the modifiers (*met zware stem* 'in a deep voice', *gisteren/gestern* 'yesterday') cannot target a speech event. Although the sentences in (12) do entail that someone said something, what is located yesterday in (12b) and (c) is not a speech event but the (alleged) illness. Idem for (12a) where this results in infelicity due to the fact that *in a deep voice* cannot modify the state of a relation being over, the infelicity indicating that there is no modifiable speech event available.

Note that this test only goes one way: if we can modify the manner of speaking, or specify a concrete time and place, we must be dealing with an eventive report. But if we can't, that doesn't necessarily mean we're dealing with a non-eventive. Not-at-issue content is generally considered immune to embedding and modification.

> **Modification Test**: if we can modify the manner of speaking, or specify a concrete time and place for the reported speech act, we are dealing with an eventive speech report.

Next, note that only at-issue eventive speech reports can be used in answer to questions that focus on or ask for a speech act, such as *Did anyone dare say anything?* and *What happened next?*. By asking for a (speech) event and letting the answer be the report of a state we can separate at-issue eventive speech reports (yielding felicitous question-answering pairs) from other kinds of speech reports (yielding infelicitous question-answering pairs).

(13)   A: Did anyone dare say anything? / What happened next?
        B: John said that it was over.
        B: John said 'it is over'.

B: #Allegedly, it was over.
B: #De relatie   scheen voorbij te zijn.
   the relation seemed over   to be
   'The relation was over, reportedly'   [Dutch]
B: #De relatie   zou   voorbij zijn.
   the relation would over   be
   'The relation was over, reportedly'   [Dutch]

So the ones that fail can in principle fail either because there is no speech event or because the speech event is not at-issue. Compare this to the What's-Your-Evidence-Test described in the previous section: While both tests are backward looking in that they consider what questions a certain construction can answer, the What's-Your-Evidence-Test singles out any at-issue speech reports, while this one singles out only eventive at-issue reports.

> **What-Happened-Next-Test**: if a sentence with a reportative expression is felicitous in answering a question of the form *what happened next?*, the reportative component is eventive and not lexically/grammatically marked as not-at-issue If it is always infelicitous, the reportative component is non-eventive and/or marked as not-at-issue.

The tests discussed so far divide the total landscape of speech reports into three classes: at-issue eventives, at-issue non-eventives, and not-at-issue reports. Within the not-at-issue class, however, there are also reasons to distinguish between eventives and non-eventives, as we can see when we consider their natural environments.

Let's start with a reportative mood, the optative, in Ancient Greek. This mood usually occurs in complement clauses after verbs of saying. In grammars it is indeed described under the heading of indirect discourse, as a special mood occurring therein (e.g. Smyth (1916: section 1570–1603), van Emde Boas et al. (2019: section 41)).

(14)   ἐνθαῦτα Ὑδάρνης   … εἴρετο Ἐπιάλτην   ὁκοδαπὸς
       *then   Hydarnes.*NOM   *ask.*PST *Epialtes.*ACC *of-what-country.*NOM
       εἴη   ὁ   στρατός·
       *was.*OPT *the.*NOM *army.*NOM
       'Then Hydarnes … asked Epialtes what country the army <u>was</u> from.' [Hdt. 7.218.2]

The more elaborate grammars go on to note that the optative also has reportative uses in continuations of indirect discourse, as in (15), where the optative-marked

verbs and their translations are underlined:[11]

(15) Μετὰ ταῦτα ἐδίδοτο λέγειν τῷ βουλομένῳ· καὶ **ἔλεγον** πολλοὶ κατὰ
ταὐτὰ ὅτι παντὸς ἄξια <u>λέγοι</u> Σεύθης· χειμὼν γὰρ <u>εἴη</u> καὶ οὔτε οἴκαδε
ἀποπλεῖν τῷ τοῦτο βουλομένῳ δυνατὸν <u>εἴη</u>, διαγενέσθαι τε ἐν φιλίᾳ
οὐχ οἷόν τε, εἰ <u>δέοι</u> ὠνουμένους ζῆν, ἐν δὲ τῇ πολεμίᾳ διατρίβειν καὶ
τρέφεσθαι ἀσφαλέστερον μετὰ Σεύθου ἢ μόνους, ὄντων ἀγαθῶν το-
σούτων. εἰ δὲ μισθὸν <u>προσλήψοιντο</u>, εὕρημα ἐδόκει εἶναι.
'After this the opportunity to speak was offered to any one who desired
it; many **spoke** to the same effect, saying that what Seuthes <u>said</u> was of
supreme importance; for the season <u>was</u> winter, and it <u>was</u> impossible to sail
back home, if that was what one wished, and impossible also to get along in
a friendly country if they <u>had to</u> maintain themselves by purchasing; on the
other hand, to spend their time and get their maintenance in a hostile country
was a safer proceeding in Seuthes' company than if they were alone. And
if, above and beyond such important advantages, they <u>were</u> also <u>to receive</u>
pay, they counted it a godsend.'   [X. An. 7.3.13]

As argued in Bary & Maier (2014) and more elaborately Bary (2018), the
optatives are not all syntactically dependent on the verb of saying that introduces the
speech report. The presence of the particle γάρ *gar* 'for' indicates that there a new
main clause starts.

Out of the blue occurrences of the reportative use of the optative are very rare.[12]
The fact that the most natural habitat of the Greek optative is the complement clause
of an indirect speech report, in combination with the fact that, when not syntactically
embedded, out of the blue occurrences are much rarer than occurrences where the
reported content is interpreted as the content of an earlier introduced speech event,
points into the direction of an eventive character. Eventive speech reports are known
to have a preference for interpretation within an established conversation, as noted
by Brasoveanu & Farkas (2007) (who on the basis of this anaphoric nature argue
for the eventive character of speech reports in general, without paying attention to
non-eventive constructions). According to them, the fact that we interpret (16) as
referring to a particular conversation shows this anaphoric nature.

(16)   Jessica didn't say that Sam had an appointment with Ernie.

Note that allowance of a continued reading is not enough to qualify as an
eventive speech report. Faller (2002) and Murray (2009) already give examples for
Cuzco Quecha and Cheyenne respectively in which the content of a sentence with

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11 An extract of the example is glossed in (68).
12 Only five examples are known, all from Herodotus, see Bary (2018), footnote 4.

a reportative marker is to be interpreted as part of the content of a speech event referred to earlier. (17) is an example from Cheyenne:

(17) Éšee-va   ná-éestsėstov-o-∅   Dale. É-hó'tȧheva-sėstse Annie.
      day-OBL *1-speak.to.s.o.*-1:3-DIR *Dale 3-win*-RPT.3SG   *Annie*
      'Yesterday I spoke to Dale. [He says that] Annie won.'

[Cheyenne, Murray 2009: 338]

The difference is that while for the Greek (eventive) ones such an anaphoric link is the rule (usually even in the form of occurrence within the complement clause of a verb of saying), the reportative markers in Cheyenne and Cuzco Quechua occur happily out of the blue, without picking up a particular speaker for example, which makes it attractive to believe that the interpretation of the sequence of two sentences in (17) is due to a more general and looser pragmatic requirement to establish discourse relations between utterances that succeed each other in a discourse.

> **Anaphoricity Test**: if a reportative expression tends to occur only in discourse contexts where the reported speech situation has already been explicitly introduced before, the reportative component is eventive.

2.3   A Diagnostic Manual

This section summarizes the tests for (not-)at-issueness and (non-)eventivity:

In Situ Interpretation Test: Is the reportative expression syntactically embeddable (e.g. in the antecedent of a conditional) and in such environments interpreted in situ?

- yes $\Longrightarrow$ at-issue

What-Makes-You-Think-Test: Is a sentence of the form 'reportative expression + p' always infelicitous in answering a question of the form *what makes you think that p?*?

- yes $\Longrightarrow$ lexically/grammatically marked as not-at-issue
- no $\Longrightarrow$ not lexically/grammatically marked as not-at-issue

Challengeability Test: Can the reportative meaning component be selectively challenged by another participant?

- yes $\Longrightarrow$ at-issue
- no $\Longrightarrow$ not-at-issue

Modification Test: Can the speaker modify the manner of speaking, or specify a concrete time and place of the speech act?

- yes $\Longrightarrow$ eventive

What-Happened-Next-Test Can the report construction be felicitously used to answer the question *what happened next?*?

- yes $\Longrightarrow$ at-issue eventive
- no $\Longrightarrow$ not-at-issue or non-eventive

Anaphoricity Test Does the report presuppose a specific conversation in the common ground?

- yes $\Longrightarrow$ eventive
- no $\Longrightarrow$ non-eventive

In the following four sections we take a closer look at the four classes of reports predicted by our typology.

3 Eventive at-issue reports: direct and indirect speech

In section 2 we proposed a number of tests to diagnose whether a linguistic report construction is eventive, and whether the report component is at-issue. On the basis of these tests, canonical direct, indirect, and free indirect discourse come out as eventive at-issue reports. In this section we propose a uniform neo-Davidsonian semantics for these report types that captures both the eventivity and the at-issueness. We'll eventually revisit direct and indirect discourse in section 5, where we discuss non-canonical variants and usages where the report component is not-at-issue, but still eventive.

Our semantics of canonical report constructions starts from the idea that they assert the existence of a speech event with certain properties (following a recent trend: Brasoveanu & Farkas 2007, Davidson 2015, Kratzer 2016, Maier forthcoming). To give a preview, a direct speech report says that there was a saying event whose linguistic form is given by the quoted phrase.

(18) Mary said "You're crazy"
$\rightsquigarrow \exists e[say(e) \wedge agent(e) = mary \wedge form(e) = \ulcorner \text{You're crazy} \urcorner]$

In words: (18) says that there is an event e, that is a saying event with Mary as agent, and with a phonological surface form approximated by the sequence of letters *You're crazy*.

This event-based approach allows us to model all the characteristic behavior we used to diagnose eventive reports in section 2.2. But first note that the eventive analysis allows us to treat direct and indirect speech uniformly. The only difference is that in direct speech the complement specifies the utterance event's form, and in indirect speech it specifies its content:

(19)   Mary said that I'm crazy
        $\rightsquigarrow \exists e[say(e) \land agent(e) = mary \land content(e) = {}^{\land}crazy(i)]$

The event-based approach has proven particularly well-suited for modeling also less canonical report types that we'd classify as eventive, such as *be-like* quotatives and sign language role shift (Davidson 2015, Maier 2018), free indirect discourse (Maier forthcoming), hear-reports in Turkish (Ozyildiz et al. 2018), and unembedded indirect speech constructions in Latin (Solberg 2017). In section 5 below we'll add parenthetical reports, quotative evidentials and certain uses of reportative moods to this list.

Now let's take a closer look at the various diagnostic tests and see how our semantics predicts the eventive at-issue behaviors of canonical direct and indirect speech reports.

Anaphoricity

First, the event-based approach allows us to capture the anaphoricity of these types of speech reports, as detected by the Anaphoricity Test. Recall Brasoveanu & Farkas's (2007) argument that (19) doesn't just mean that it's compatible with what Mary said that I'm crazy, but rather that she said this in the specific, salient conversation that is currently under discussion. We can build this anaphoric dependency into (19), for instance by restricting the event quantification to a free variable E (referring to a conversation, modeled as a sequence of utterances):

(20) $\exists e \in E[say(e) \land agent(e) = mary \land \ldots]$

Modification

We correctly predict the modifiability of these reports, as diagnosed by the Modification Test. To see this, we have to give a brief demonstration of the compositional derivation of the event-based logical forms above, using standard tools from event semantics, intensional type theory, and the logic of (pure) quotation.

In event semantics in general, clauses and adverbial modifiers alike express properties of events, which can be combined via the predicate modification rule (i.e., we can combine $\lambda x[P(x)]$ and $\lambda y[Q(y)]$ into $\lambda x[P(x) \land Q(x)]$, cf. Heim & Kratzer

1998).

(21) a. $\mathbb{T}(\text{Jiaqi walks}) = \lambda e[walk(e) \wedge agent(e) = jiaqi]$
      b. $\mathbb{T}(\text{clumsily}) = \lambda e[clumsy(e)]$
      c. $\mathbb{T}(\text{Jiaqi walks clumsily}) = \lambda e[walk(e) \wedge agent(e) = jiaqi \wedge clumsy(e)]$

In the Neo-Davidsonian paradigm even the standard arguments of the verb (agent, theme, goal, etc) may be introduced via (covert) thematic role operators (which we'll tend to leave out of our syntactic LF representations):

(22) a. $\mathbb{T}(\text{AGENT}) = \lambda x \lambda e[agent(e) = x]$
      b. $\mathbb{T}(\text{walk}) = \lambda e[walk(e)]$
      c. $\mathbb{T}(\text{[AGENT Jiaqi] walks}) = \lambda e[walk(e) \wedge agent(e) = jiaqi]$

At the end of the translation of a clause we apply existential closure to turn an event property into an event quantification (i.e., of type t):

(23) (21) $\rightsquigarrow \exists e[walk(e) \wedge agent(e) = jiaqi \wedge clumsy(e)]$

Applied to speech reports, we assume that indirect and direct discourse complements are modifiers of the verb of saying, introduced by dedicated operators on a par with AGENT above. For indirect discourse, we posit the operator CONTENT, relating an event and its propositional content:[13]

(24) $\mathbb{T}(\text{CONTENT}) = \lambda p_{st} \lambda e[content(e) = p]$

The syntactic LF for our indirect discourse example then is (25) (where we may think of the optional complementizer *that* as the overt realization of CONTENT):

(25) [AGENT Mary] said [CONTENT [I'm crazy]]
      a. $\mathbb{T}(\text{I'm crazy}) = crazy(i)$
      b. $\mathbb{T}(\text{CONTENT [I'm crazy]}) = \lambda e[content(e) = {}^{\wedge}crazy(i)]$
      c. $\mathbb{T}(\text{say}) = \lambda e \in E[say(e)]$
      d. $\mathbb{T}(\text{say [CONTENT [I'm crazy]]}) =$
          $\lambda e \in E[say(e) \wedge content(e) = {}^{\wedge}crazy(i)]$

This event modifier treatment immediately accounts for the possibility of adverbially modifying speech verbs, like any other verb, in a report construction, through eventive Predicate Modification:

(26) Yesterday Mary told me, softly, in her thick New York accent, that John

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13 Cf. Kratzer 2006, Hacquard 2010, Moulton 2009, Kratzer 2016 for more on contentful eventualities and the CP-as-modifier approach to attitude and speech reports.

was crazy.

    a. $\mathbb{T}$([AGENT Mary] told [GOAL me]) =
           $\lambda e.tell(e) \wedge agent(e) = mary \wedge goal(e) = i$

    b. $\mathbb{T}$(softly) = $\lambda e.soft(e)$

    c. $\mathbb{T}$(in her thick NY accent) = $\lambda e.thick.ny.accent(e)$[14]

    $\ldots \leadsto \lambda e \in E[yesterday(e) \wedge tell(e) \wedge agent(e) = mary \wedge goal(e) = i$
        $\wedge \; soft(e) \wedge thick.ny.accent(e) \wedge \; content(e) = {}^{\wedge}crazy(j)]$

For direct quotation we'll need a way to refer to a linguistic form (and/or demonstration, depending on your basic theory of quotation). In our formal language we introduce a new type *u* (à la Potts 2007) and use Quine hooks to indicate (pure) quotation in the formal type-theoretic metalanguage, i.e.:

(27)   If σ is a string of letters (or signs, or phonemes), then $\ulcorner \sigma \urcorner$ is of type *u* and
       $[\![\ulcorner \sigma \urcorner]\!] = \sigma$.

Note that strings of letters are now part of our ontology. We assume that each natural language expression corresponds to such a string and that at any point in the semantic derivation we have access to that string. We then introduce an operator QUOT as the quotational analogue of CONTENT, i.e., relating an event and its form (given as an expression of type *u*).

(28) $\mathbb{T}$(QUOT) = $\lambda q_u \lambda e[form(e) = q]$

Using Sudo's (2013) quotational analogue of Intensional Function Application, we coerce the argument of QUOT into a type *u* object (i.e., in the metalanguage, we put its phonetic surface realization in Quine hooks $\ulcorner \; \urcorner$). The logical form and derivation for direct speech then looks rather like that of indirect speech above:

(29)   [AGENT Mary] said [QUOT [you're crazy]]

    a. $\mathbb{T}$(QUOT [you're crazy]) = $\lambda e[form(e) = \ulcorner$ you're crazy $\urcorner]$

    b. $\mathbb{T}$(say [QUOT [you're crazy]]) =
        $\lambda e \in E[say(e) \wedge form(e) = \ulcorner$ you're crazy $\urcorner]$

The semantics provided above not only accounts for the eventivity of direct and indirect speech, but also correctly predicts the at-issue status of these reports. While the true point will not be appreciated until we have discussed not-at-issue speech reports which, as we will see, have their reportative component at a second dimension that cannot be used e.g. to answer questions-under-discussion, we will quickly go

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14 We're abstracting away from the intricate internal structure of the predicate *in her thick New York accent*. We're simply assuming that it will come out as a property of (speech) events (roughly, that the event's phonological form shows the characteristics of the familiar NY accent of Mary.

through the other tests to show that the proposed semantics fits the behaviour on the other tests as well.

In Situ Interpretation

The existential event quantification in the eventive logical forms is introduced by existential closure at the clause level, which explains the lack of projection out of any clausal embeddings.

(30)   If Mary said that I'm crazy, then maybe I am

    a. $(\exists e \in E[agent(e) = mary \wedge say(e) \wedge content(e) = {}^{\wedge}crazy(i)]) \rightarrow \Diamond crazy(i)$

What happened next/What makes you think

Our analysis of canonical reports as asserting that a speech event occurred, trivially explains why such reports should be felicitous answers to questions like *What happened next?* or *Did anyone dare say anything?*.

(31)   A.   What happened?
    B.   Sue told May that she's a genius.

The same holds for questions that ask for evidence, for which all that is required is that the speech report is at-issue:

(32)   A.   What makes you think that Mary is ill?
    B.   John told me that Mary has the flu.

Challengeability

Similarly, assuming that in general we can always easily challenge the main, direct, semantic contribution of an assertion, we predict the behavior diagnosed by the Challengeability Test:

(33)   A.   She said that she was innocent.
    B.   Nonsense, she may be innocent, but she would never say that.

Although there certainly is variation within the eventive class – we have varieties that specify the form (direct discourse) and ones that specify the content (indirect discourse), and mixtures (mixed quotation, free indirect discourse) – they have a uniform semantics in the sense that they specify linguistic features of a *speech act*, represented as an event. This speech event can be further specified in the report, through event modification (*yesterday at noon*, *with a heavy German accent*).

Moreover, in our analysis, the asserted speech event comes with a presupposition that it is part of a specific, already salient conversation, which explains the behavior in the Anaphoricity Test.

4 Not-at-issue non-eventive reports: Reportative evidentials

It is well known that some languages have dedicated morphemes to express the source of the information conveyed by an utterance. Thus, in Cuzco Quechua, if a speaker wants to say that it's raining they can choose to indicate that they know this because they saw it, inferred it, or heard it from someone else.

(34)   a.   Para-sha-n-mi.
            RAIN-PROG-3-mi
            'It is raining(, I see).'
       b.   Para-sha-n-chá.
            RAIN-PROG-3-chá
            'It is raining(, I guess).'
       c.   Para-sha-n-si.
            RAIN-PROG-3-si
            'It is raining(, I am told).'   [Cuzco Quechua, Faller 2002: 3]

Our interest is in the last subtype, reportative or hearsay evidentiality, i.e. constructions that mark some content as based on hearsay evidence. In section 2 we have already seen for some characteristics associated with not-at-issue non-eventive reports that reportative evidentials have them. In this section we propose a semantics that treats them as not-at-issue non-eventive reports. This semantics extends beyond reportative evidential morphemes in the strict sense of Aikhenvald (2004) to include also uses of lexical and other non-functional markers with a reportative meaning component which according to our diagnostics fall in the same corner of the speech report landscape. This includes some English adverbials and Dutch and German modals.

(35)   a.   Supposedly, that's a really great book
       b.   Maar de film   moet ook heel goed zijn / schijnt ook heel goed te
            but   the movie must also very good be   / seems also very good to
            zijn
            be
            'But the movie is also very good, reportedly'   [Dutch]

4.1 2D logical forms and pre-updates

The distinction between at-issue and not-at-issue content is often cashed out in terms of multiple meaning dimensions (Bach 1999, Potts 2005, Geurts & Maier 2013).[15]

(36)   Mary, who likes to come to these meetings, is ill

$$\approx \left\langle \begin{array}{c} \text{Mary is ill} \\ \text{Mary likes to come to these meetings} \end{array} \right\rangle$$

Potts uses these two-dimensional forms to model the projection behavior of what he calls conventional implicatures, i.e. the supplemental content on the second dimension. The idea is that linguistic operators (negation, quantifiers, modals etc.) only look at the first dimension, leaving the second dimension unaffected, which indeed semantically derives universal projection of not-at-issue marked material.

We have seen in section 2 that the reportative component of these types of reports (prototypical Aikhenvaldian reportative evidentials, English adverbials and Dutch and German reportative modals) is lexically marked as not-at-issue. The reported content on the other hand is at issue, as shown by (37) and (38) (where along lines similar to the What-Makes-You-Think-Test the fact that the answers are felicitous indicates that the parts that address the questions (that is, the reported contents) are at-issue):

(37)   A: Why are Mary and Sue not at the meeting?
         B: a.   Allegedly, Mary is ill
             b.   Mary is ill, I hear.
             c.   Marie schijnt ziek te zijn.
                  Marie seems ill   to be
                  'Mary is ill, reportedly'

(38)   A: gu   gan   wil=hl   nee=dii   di-t'aa=s   John ky'oots?
              what REAS COMP=CN NEG=FOC DUR-*sit*=PN *John yesterday*
              'Why was John not at home yesterday?'
         B: sin-hun=gat   John ky'oots.
              hunt-fish=REP *John yesterday*
              'John went fishing yesterday, I'm told.'

Hence, the starting point of our analysis is to put the reported content, often referred to as the 'scope proposition' in the evidentiality literature, on the first dimension and the reportative component on the second:

(39)   Allegedly, Mary is ill

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15 Hunter & Asher (2016) pleas for a less strict division. We expect that it will be possible (though not trivial) to recast some of the core ideas from this paper within their discourse-structural account.

$$\approx \left\langle \begin{array}{c} \text{Mary is ill} \\ \text{I've been told that Mary is ill} \end{array} \right\rangle$$

For the semantics, this means that the speech reports considered above somehow manage to compositionally separate the reportative from the reported content and put them on the two separate dimensions. We propose the following lexical interpretation of *allegedly* and other reportative markers:

(40) $\mathbb{T}(\text{allegedly}) = \mathbb{T}(\text{gat}) = \mathbb{T}(\text{schijnen}) = \lambda p_{st} \left\langle \begin{array}{c} p \\ \textit{hearsay}(p) \end{array} \right\rangle$

A couple of remarks about (40). First, the predicate *hearsay* in the second dimension is a traditional Hintikka-style propositional attitude, indicating that the actual speaker has hearsay evidence for a proposition from some source:[16]

(41) $\langle p, x \rangle \in [\![\textit{hearsay}]\!]_w^{f,c}$ iff for all w' compatible with the information the agent of c heard from source x in w, $w' \in p$ [17]

Note that, as argument of hearsay, p in (40) and (41) ranges over propositions, of type st. We deliberately do not extensionalize ($^{\vee}$) this proposition to get a regular assertive sentence contribution (of type t) in the first dimension of (40). In section 4.3 we'll return to this point. Third, we abstract away from all the finer semantic distinctions (e.g. between *supposedly*, *reportedly* and *allegedly*, or between those and Gitksan *gat* and St'át'imcets *ku7*) and syntactic details (e.g. the reportative modal *schijnen* has to undergo raising to be interpreted as a sentential operator). In the following we illustrate our semantics by focussing on (clause-initial) *allegedly* as a concrete example.

    Just as in eventive indirect discourse, we use Intensional Function Application to coerce the sentential type t argument into a type st argument slot (by adding $^{\wedge}$).

(42) $\mathbb{T}(\text{Allegedly, Mary is ill}) = \left\langle \begin{array}{c} ^{\wedge}\textit{ill}(\textit{mary}) \\ \textit{hearsay}(^{\wedge}\textit{ill}(\textit{mary})) \end{array} \right\rangle$

Before we move on to the pragmatics of these somewhat unusual 2D logical forms (with intensional first dimensions), let's take stock and list the test behaviors already accounted for by the semantics thus far.

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16 In terms of Kratzer's (2012, chapter 2) more sophisticated analysis of modality, the hearsay modal used here is one that quantifies over an informational rather than a realistic modal base.

17 Note that this semantics does not capture the phenomenon of interrogative flip, the fact that in questions the (hearsay) evidence is interpreted with respect to the hearer. This paper has nothing to say about interrogative flip.

In Situ

Potts' semantics immediately gives us the wide scope behavior described in the In Situ Interpretation Test of section 2. Although many of the evidential-type constructions mentioned above are syntactically restricted to main clauses, so the test doesn't apply, the constructions that can be embedded do show projection, or rather, they don't show in situ interpretation. For instance, the reportative marker *ku7* from St'át'imcets can be syntactically embedded but is not interpreted in situ:

(43)   #lh-t'íq-as   ku7   k   Sonja, sqwal'-en-ts-kál'ap
       HYP-*arrive*-3CONJ REPORT DET *Sonja* *tell*-DIR-*1*SG.OBJ-2PL.SUBJ
       'If [reportedly] Sonja arrives, tell me'   [St'át'imcets, Matthewson et al. (2007)]

What Happened Next, Modification, and Anaphoricity

We've already established in (13) that evidential reports like the ones discussed here are indeed unable to answer eventive questions like *What happened next?*. Likewise, they can't be modified adverbially as we saw in (12a). This is indeed predicted on the basis of the semantics: passing these tests would require a speech event to be available, which is absent in (40).

As for the Anaphoricity Test, the report constructions in this class occur happily out of the blue, that is, without the earlier introduction of a speech event that they connect to. Example (44), where the question could be a discourse-initial move, shows this point:

(44)   A.   Hé, kom je vanavond ook op Peters feestje?
                'Hi, are you coming to Peter's party tonight?'
           B.   Nou, ik weet het niet. Rick schijnt ook te komen.
                'Well, I don't know. Rick is also coming reportedly.'   [Dutch]

The same for Gitksan (45):

(45)   Context: A friend of yours heard you were getting married and congratulates
           you when you meet her in the store.

                dim naksgat   n'iin
                FUT *marry*.REP *2sg*
                '[I heard] you're getting married!'   [Gitksan, Peterson 2010: 51]

The felicity of such sentences is in line with the absence of a speech event that would try to link up to a conversation. The point will become clear in section 5.3 where we

see the difference with reportative moods.[18]

4.2 Pragmatics of 2D logical forms

The next step would be to describe how these two dimensions interact with the larger discourse structure and the common ground, because that's what the What-Makes-You-Think and Challengeability Tests are based on.

In modeling how 2D logical forms update the common ground, we follow a popular idea about the interpretation of appositives and evidential meaning dimensions generally, viz. that they impose a non-negotiable, forced "pre-update" of the common ground (Murray 2009, Koev 2013, Anderbois et al. 2015, Griffiths 2015). Based on ideas from Farkas & Bruce (2009), Inquisitive Semantics (Groenendijk & Roelofsen 2009), and going back to Stalnaker (2002), at-issue content is analyzed as an "update proposal", that can be accepted or rejected by other discourse participants.

The interpretation of a sentence with a not-at-issue component is thus analyzed as a three-step process: (i) the not-at-issue content directly updates the common ground; (ii) an additional at-issue update, addressing the QUD, is proposed; and then, (iii), unless the proposal is challenged at the next turn in the dialogue, it is accepted ("grounded") and used to further update the common ground.

For the first two steps we propose the following update rule:

(46) $\qquad c + \left\langle \begin{array}{c} \varphi \\ \psi \end{array} \right\rangle = (c +_1 \psi) +_2 \varphi$

In this formula, c is the context set (i.e., a set of worlds representing the common ground); $+_1$ is a standard, intersective update; and $+_2$ is meant to capture the idea of an update proposal, to be made precise.[19] Let's apply (46) to our concrete example.

(47) $\qquad c + \left\langle \begin{array}{c} {}^{\wedge}ill(mary) \\ hearsay({}^{\wedge}ill(mary)) \end{array} \right\rangle = (c +_1 hearsay({}^{\wedge}ill(mary)) +_2 {}^{\wedge}ill(mary)$

In words, the dynamic interpretation of (47) in context starts by updating c with

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18 We would like to stress that it is only reportative evidentials (and not evidentials in general) for which we claim that there is no event variable present. Assuming this absence explains the difference in behavior that we see with reportative moods. For other evidential markers such as the Bulgarian indirect evidential marker *-l*, historically related to the present perfect morphology, it may have advantages or even be needed to include an event in the semantics, as done in Koev (2017b). (Note by the way that Koev argues that one advantage of his account over the existing modal ones is that it accounts for the fact that this marker yields full commitment to the scope proposition, something which is never found with reportative markers.)

19 Note that simple one-dimensional assertions (*it is raining*) will be effectively treated as two-dimensional ones with a trivial second dimension and an extensional first dimension, of type t.

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the not-at-issue proposition, i.e. throwing out possibilities from c where the speaker hasn't heard that Mary is ill. As we've seen in (9) and (10), the proposition at the first dimension, i.e., the proposition that Mary is ill, is open for discussion, so this shouldn't be an automatic update of the common ground. We can think of $+_2$ as a proposal to update, which only becomes an actual update when it's accepted by the interlocutors.

Proposing that φ just means adding it to the queue of proposals, which we will model by creating a new pair, consisting of our updated context and φ. To capture the characteristic behavior of at-issue versus not-at-issue content in question–answer pairs, as we saw e.g. in the What-Makes-You-Think-Test, we require that a proposal may only be added to the queue if it addresses the QUD.

(48) $c +_2 \varphi := \langle c, \varphi \rangle$, if $^{\vee}\varphi$ answers QUD (otherwise undefined)

Applied to our example, we thus add the proposal that Mary is ill:

(49) $(47) = c +_1 hearsay(^{\wedge}ill(mary)) +_2 {}^{\wedge}ill(mary) =$
        $= \langle (c +_1 hearsay(^{\wedge}ill(mary)), {}^{\wedge}ill(mary)) \rangle$

When a proposal is thus on the table it can be negotiated. A dialogue participant may either reject or accept the proposal. Note that what is on the table is still of type *st* rather than of type *t*. In the next section we'll discuss how to formulate a notion of acceptance that relies on this feature to account for 'reportative exceptionality'.

4.3   Commitment, acceptance, and 'reportative exceptionality'

Outside the reportative domain, the use of a direct or inferential evidential marker entails that the speaker is committed to the scope proposition in the sense that she can't follow the evidential with a denial of it's scope content:

(50)   # Para-sha-n-mi,   ichaqa mana crei-ni-chu.
        *rain.*PROG-*3-mi but   not   believe-1-*NEG
        # 'It is raining but I don't believe it.'   [Cuzco Quechua, Faller 2002: 163]

(51)   # Aya-llru-llini-uq   ... Aya-ksaite-llru-yuk-aa.
        leave-PAST-INF-IND.3SG *leave*-NEG-PAST-*think.that*-IND.1SG$_s$-3SG$_o$
        'Evidently she left ... [but] I don't think that she left.' [Yup'ik, Krawczyk 2012:22]

Some reportative evidentials, such as *ku7* in St'át'imcets, have been claimed to show the same pattern:

(52)   # um'-en-tsal-itás   ku7   i   án'was-a xetspqíqen'kst
        give-DIR-*1*SG.OBJ-*3*PL.ERG REPORT DET.PL *two*-EXIS *hundred*

táola, t'u7 aoz kw s-7um'-en-tsál-itas ku stam'
dollar but NEG DET NOM-*give*-DIR-1S.OBJ-3P.ERG DET *what*
'[Reportedly,] They gave me $200 , but they didn't give me anything.'

<div align="right">[St'át'imcets, Matthewson et al. 2007: ex. 28]</div>

Now compare that with the canonical, eventive report constructions of section 3, where the speaker expresses no commitment to the reported content whatsoever:

(53)   John said {"I didn't do it"/that he didn't do it}, but he clearly did.

When I report John's words in this way I clearly do not implicate my own belief in or acceptance of their truthfulness.

The vast majority of instances of what we are calling not-at-issue non-eventive reports, including most so-called reportative evidentials, seem to fall somewhere in between. For instance, one of the reasons for saying (54a) is to convey or strongly suggest that Trump is dishonest, and (54b) can be intended to convince the addressee to come see that movie:

(54)   a.   Allegedly, Trump even cheats at golf.
         b.   Die nieuwe Jim Jarmusch film   schijnt echt   heel goed te zijn
                That new   Jim Jarmusch movie seems really very good to be
                '[Reportedly,] that new Jim Jarmusch movie is really good.'   [Dutch]

The speakers in (54) are not primarily interested in reporting the words of some journalist or film critic, rather, they're telling you Trump cheats and it's probably a good movie, and using the reportative marker mainly to add some not-at-issue evidential information, viz. that they don't have this from personal experience but from hearsay.

At the same time, adding the reportative does tend to signal a weakening of the speaker's commitment to the truth value of the scope proposition and allows her to maintain plausible deniability. This weakening effect can sometimes be brought out with a follow-up where the reporter explicitly further distances herself from the scope proposition:

(55)   a.   Pay-kuna-s   ñoqa-man-qa qulqi-ta   saqiy-wa-n. Mana-ma ni
                (s)he-PL-REP *I*-ILLA-TOP   *money*-ACC *leave*-1O-3 *not*-SURP *not*
                un   sol-ta   saqi-sha-wa-n-chu
                one Sol-ACC *leave*-PROG-1O-3-NEG
                'They left me money, I was told. But no, they didn't leave me one Sol.'
                <div align="right">[Cuzco Quechua, Faller 2002: 193]</div>
         b.   Dadating daw siya sa isang oras, pero hindo talaga.
                will.come DAW he   in one   hour but   not   really

'He says he will come in an hour, but in fact he won't.'

<div align="right">[Tagalog, Schwager 2010]</div>

    c.   Anneloes schijnt   thuis   te zijn, maar ik geloof er   niets
         Anneloes seems.REP *at-home to be,   but   I believe there nothing*
         van.
         of
         'Anneloes is at home, I am told, but I don't believe it.'

<div align="right">[Dutch, Koring 2013]</div>

This weakening of 'scope commitment' in reportative evidential constructions has been dubbed 'reportative exceptionality' in the evidentiality literature (cf. AnderBois 2014 for a detailed overview), referring to the fact that this pattern is not found in any other types of evidentiality marking. A crucial puzzle in the evidentiality literature thus consists in reconciling this behavior with the information structuring postulated above: If the at-issue proposition contributed by a report is the scope proposition, how come the speaker is not committed to that?

Existing accounts differ on whether or not speaker commitment to the scope proposition is built into the semantics. On the one side, we have AnderBois (2014) who argues that scope commitment is part of the semantics of evidentials, analyzing exceptions in terms of a pragmatic perspective shift of the sort proposed by Harris & Potts (2010). On the opposite side, Faller (2002) argues that the reported content is not proposed to be added to the common ground at all: it is merely presented rather than asserted. Murray (2014, 2017) offers a hybrid account, distinguishing between what is on the table for discussion (viz. the plain scope proposition), and what updates the common ground (viz. a suitably modalized version thereof).

Synthesizing some key insights from Faller (2002), Murray (2017), and Hunter (2016), we suggest the following picture: The speaker herself initially only *presents*, as Faller puts it, a main content, which corresponds to the fact that the context–proposal pair contains a proposition of type *st* as the proposal under discussion in our formalism (49). The idea is that the proposal is what's on the table for discussion, leading either to rejection or acceptance. But what we accept (or reject) is not the propositional object of type *st* that we have as our at-issue component, we have to first bring it down to something that can be true of false, i.e. of type *t*. Assuming a simple $^{\vee}$ operator would entail full commitment to the scope proposition, which, as we saw above, would be too strong for most instances of not-at-issue non-eventive reporting.[20]

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20 St'át'imcets *ku7* from (52) would seem to be a notable exception here. To deal with this datum, however, we don't want or need to make any adaptations to our pragmatic acceptance model. Instead, we follow a suggestion from Kratzer (2012: chapter 2) (in turn based on the data and analysis of Rullmann et al. 2008), and modify the lexical reportative contribution of *ku7*. Instead of introducing a

Following Hunter (2016) and Murray (2017), we suggest that the basic commitment is to a modalized version of the scope proposition. Following Kratzer (1981) we take the relevant modal to be highly underspecified, somewhat like the generic necessity modal *must* of English. Following Kratzerian terminology, we would say that the context determines the modal base f, giving us the set of worlds accessible from w ($\bigcap f(w)$), and also the ordering source g, giving us an ordering $\leq_{g(w)}$ that tells us which worlds are preferred.

(56) $[\![MUST_{f,g}(\varphi)]\!]_w = 1$ iff all w' that are $\leq_g (w)$-highest-ranked in $\bigcap f(w)$ are such that $w' \in [\![\varphi]\!]_w$.

We use this Kratzerian modal in our definition of pragmatic acceptance of what's on the table, leaving f and g as free variables to be supplied by the context, (57a). The other move in our simple dialogue game is to reject what's on the table. We model this in (57b) as a new proposal, to update with the negation of the proposition on the table.[21]

(57) $Accept(\langle c, \varphi \rangle) = c +_1 MUST_{f,g} \, \varphi$
(57) $Reject(\langle c, \varphi \rangle) = c +_2 \neg \varphi$

Let's pick up our example where we left off. According to (49) the proposal that Mary is ill indeed addressed the QUD and thereby got on the table. Let's say nobody challenges the proposal so then it tacitly gets accepted, according to (57).

(58) $Accept(\langle (c +_1 hearsay(^\wedge ill(mary)), ^\wedge ill(mary)) \rangle) =$
        $(c +_1 hearsay(^\wedge ill(mary)) +_1 MUST_{f,g}(^\wedge ill(mary))$

In words: we've updated the context first with the information that the speaker has heard that Mary is ill, and then with the modally hedged proposition that she must be ill (where the exact interpretation of 'must' is to be filled in by context).

In this section we have provided a minimal semantics in which the first dimension generated by an evidential contains the scope proposition (type *st*), which gets treated as the presentation of a proposal. In modeling the process of accepting the proposal, (58), we allow for a weakening of the eventual commitment, but leave it up to the context how weak or strong the modalized commitment of the eventual update is going to be.

'weak' hearsay modal ($\approx$ based on the content of what I heard, φ must be true $\approx$ (41)) on the second dimension of the logical form, this marker introduces a 'strong' modal, presupposing a circumstantial modal base ($\approx$ given these rumors I heard, φ must be true). We leave it for a future occasion to spell out in more detail these two variants of the lexically introduced modal *hear*.

21 The negation in (57) denotes negation of intensions rather than truth values, i.e. complementation in the set of possible worlds.

5 Not-at-issue eventive reports: Parentheticals, moods, and quotatives

We have covered the two extremes of our classification: eventive at-issue and non-eventive not-at-issue. These cover the most discussed classes of report constructions, viz. direct/indirect discourse and reportative evidentials. We proposed a semantics built around contentful speech events for the first, and a two-dimensional semantics with an intensional operator for the second. In the latter, we started by distinguishing a reportative component from the reported content, and treating the first as a not-at-issue supplement. Eventive reports can be decomposed into the same two propositional components: someone said that p, and p itself. In canonical direct and indirect discourse, the reportative component is clearly at-issue, but we could imagine eventive reports where the eventive report contribution is somehow marked as secondary to the embedded proposition, similar to reportative evidentials and the like, but now with the supplement playing the role of event description rather than hearsay marking. As we'll show in this section, languages indeed offer this option.

5.1 Parenthetical reports

First, consider the information structural effects of parentheticalization. In general, as we saw with appositives in section 2, parentheticalization generally marks something as not-at-issue (Potts 2005). So we expect that the familiar parenthetical realizations of direct discourse like in (59) (also known as fronted quotation or inverted direct discourse) show this hybrid behavior.

(59)   "Get outta here!", she yelled, "and don't come back!"

We propose

(60) $\left\langle \begin{array}{c} \ulcorner \text{Get outta here} \urcorner \\ \exists e[yell(e) \wedge form(e) = \ulcorner \text{Get outta here} \urcorner] \end{array} \right\rangle$

Indirect discourse also allows parentheticalization, a phenomenon known as inverted or syntactically parenthetical indirect discourse.

(61)   Mary doesn't want to come to my party tomorrow, Sue told me last week

Note the unshifted *tomorrow* and *me*, which shows this is not direct or free indirect discourse.

(62)

$\left\langle \begin{array}{c} ^\wedge \neg come.to(mary, party.of(i), n+1) \\ \exists e[tell(e) \wedge goal(e) = i \wedge time(e) = n-7 \wedge agent(e) = sue \wedge content(e) = ^\wedge \neg come.to(mary, party.of(i), n+1)] \end{array} \right\rangle$

For reasons of space we'll no longer go through all our tests again and again but just pick a few representative ones.

What happened next / modification

It has been noted before that parenthetical reports are ill-suited to directly answer a question about a saying event (cf. de Vries 2006):

(63)   A: What happened next? Did anyone dare say anything?
        B: Mary said in her thick New York accent that John did it/"John did it".
        B':??{John did it/"John did it"}, Mary said in her thick New York accent.

Here, the speech event modification (*in his thick New York accent*, and the quotation marks in the direct speech variant), unambiguously indicates that these are eventive constructions, yet the infelicity of B' shows that the speech reporting component is not-at-issue.

5.2   Pragmatic backgrounding in indirect speech

Sometimes a not-at-issue interpretation is forced by discourse structure rather than a syntactic device like parentheticalization. This happens for instance in canonical indirect discourse in discourses like (64) (e.g. Simons 2007, Hunter 2016):

(64)   A: Why is John not at the meeting?
        B: Mary said that he is ill.

It's the information in the complement that answers the question. The reportative component merely signals that the speaker's has heard this information from Mary. The felicity of the discourse thus shows that a canonical indirect discourse complement can be made at-issue by discourse structure, resulting in a demotion of the reportative component to not-at-issue status. How best to model this kind of information structuring in the semantics/pragmatics interface remains an open question. One option would be to stick with our two-dimensional eventive not-at-issue logical forms. We then posit a structural ambiguity or movement in the syntax/semantics interface and select the two-dimensional logical form when discourse coherence demands it. Concretely, in (64), the one-dimensional, eventive at-issue logical form would be incoherent because the occurrence of a speech act by Mary does not address the question about John's presence at the meeting. So we instead select the two-dimensional logical form:

(65) $\left\langle \begin{array}{c} {}^{\wedge}ill(john) \\ \exists e \in E[say(e) \wedge agent(e) = mary \wedge content(e) = {}^{\wedge}ill(john)] \end{array} \right\rangle$

The general dynamics/pragmatics for 2D logical forms we sketched in the previous section (for evidentials) indeed predicts that this is felicitous, as the assertion that John is ill would partially answer the QUD (see (48), applied to our example in (66)).

(66)　　$c + (65) =$
$\langle(c +_1 \exists e \in E[say(e) \wedge agent(e) = mary) \wedge content(e) = {}^{\wedge}ill(john)]), {}^{\wedge}ill(john)\rangle$,
if ${}^{\vee\wedge}ill(john)$ answers the QUD (otherwise undefined)

Unless explicitly rejected by other speech act participants, this would eventually result in an updated context where (i) there was a speech act (in a salient conversation) by Mary with the content that John is ill, and (ii) it is at least possible that John is in fact ill.

(67)　　$Accept(\langle(c +_1 \exists e \in E[say(e) \wedge agent(e) = mary \wedge content(e) = {}^{\wedge}ill(john)]), {}^{\wedge}ill(john)\rangle) = c +_1 \exists e \in E[say(e) \wedge agent(e) = mary \wedge content(e) = {}^{\wedge}ill(john)] +_1 MUST_{f,g} {}^{\wedge}ill(john)$

5.3　Reportative mood

There may be yet other sources of not-at-issueness in eventive reports. Consider for instance the Ancient Greek optative mood in examples like the following, a glossed extract from (15):

(68)　　Μετὰ ταῦτα ἐδίδοτο　　　　λέγειν τῷ　　　βουλομένῳ· καὶ
　　　　after　that　give.PST.PASS.3SG *say*.INF *the*.DAT.SG *want*.PTCP.DAT *and*
　　　　ἔλεγον　　　　πολλοὶ　　　κατὰ ταὐτὰ　ὅτι　παντὸς
　　　　say.PST.IMP.3PL *many*.NOM.PL PREP *same*.ACC COMP *all*.GEN
　　　　ἄξια　　　　λέγοι　　　Σεύθης·　χειμὼν　γὰρ εἴη
　　　　worth.ACC.PL *say*.OPT.3SG *Seuthes*.NOM *winter*.NOM *for* *be*.OPT.3SG
　　　　καὶ οὔτε οἴκαδε ἀποπλεῖν τῷ　　　τοῦτο　　βουλομένῳ
　　　　and nor home　sail.INF *the*.DAT.SG *that*.ACC.SG *want*.PTCP.DAT.SG
　　　　δυνατὸν　　εἴη,　　διαγενέσθαι τε　ἐν φιλίᾳ　　οὐχ
　　　　possible.NOM.SG *be*.OPT.3SG *live*.INF　　*and in friendship*.DAT *not*
　　　　οἷόν τε, εἰ δέοι　　ὠνουμένους　ζῆν,　…
　　　　possible if had-to.OPT *buy*.PTCP.ACC.PL *live*.INF
　　　　'After this the opportunity to speak was offered to any one who desired it; many **spoke** to the same effect, saying that what Seuthes <u>said</u> was of supreme importance; for the season <u>was</u> winter, and it <u>was</u> impossible to sail back home, if that was what one wished, and impossible also to get along in a friendly country if they <u>had to</u> maintain themselves by purchasing …'　　　　　　　　　　[X. An. 7.3.13]

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In (68), the first reportative optative (underlined λέγοι) is in the complement clause under the verb of saying ἔλεγον. Th following optatives (also underlined) are no longer part of the same sentence (as shown by the presence of the particle γάρ, see Bary 2018). Still, the optative morphology is used to mark that the clause is a continuation of the explicit report. Before turning to the formal semantics, we first establish that such constructions exhibit the characteristics of eventive not-at-issue reporting.

Diagnosing reportative moods

As mentioned already in section 2.2 out of the blue reportative uses of the optative are very rare. The most natural habitat of the Greek optative is the complement clause of an indirect speech report. When not syntactically embedded, out of the blue occurrences are much rarer than occurrences where the reported content is interpreted as offering more content of a specific earlier introduced speech event (as in (68)). In other words, the speech report passes the Anaphoricity Test for eventivity so our semantics will have to incorporate an anaphoric link back to a particular conversation.

For the In Situ Interpretation Test we've been looking at embedding in conditionals. The Greek example in (68) is a case in point. We repeat the relevant part in (69), again with the optative underlined:

(69) διαγενέσθαι τε ἐν φιλίᾳ   οὐχ οἷόν τε, εἰ <u>δέοι</u>
      live.INF *and in friendship*.DAT *not possible if <u>had-to</u>*.OPT
      ὠνουμένους   ζῆν
      buy.PTCP.ACC.PL *live*.INF
      "It was impossible also to get along in a friendly country if they had to maintain themselves by purchasing (they said)'

We see that the reportative contribution of the optative percolates up: the optative indicates that the conditional clause is part of a speech report (rather than the speech report being part of the conditional). Note that the In Situ Interpretation Test was stated in only one direction: if a reportative expression is syntactically embeddable and in such environments interpreted in situ, then we can say that the reportative expression itself introduces at-issue information. On the other hand, there may be a variety of reasons why a reportative is not syntactically embeddable or its contribution projects, so we can't conclude that the expression itself is lexically responsible (cf. parenthetical direct discourse or the pragmatically driven not-at-issue interpretation of canonical indirect discourse above). In sum, the reportative optative here doesn't show typical at-issue behavior, but we can't be sure that it's the lexical

semantics of the mood morpheme that drives the projection.

Beyond this, much of our diagnostic manual is difficult to apply to a dead language: for example, as expected, we indeed do not find examples where the reportative contribution is challenged. But as always, the fact that something does not occur does not mean that it is impossible – especially since challenging is a dialogue move, and all we have is written texts. Nonetheless, statistical data from corpus analysis may provide some further indirect evidence. In particular, it has been observed that discourse relations within long stretches of indirect discourse with the optative are always established at the level of the reported content, without discourse interference from a speech event (see Haug et al. 2018 for a similar phenomenon in Latin, Bary 2018 for Ancient Greek). We can see this as the result of what is actually the general idea behind the more specific backward looking Challengeability Test and forward looking What-Happened-Next-Test (see also Hunter & Asher 2016).

In order to further apply our tests, we might consider a strikingly similar phenomenon in German. The reportative subjunctive (Konjunktiv) resembles the Greek optative in many respects, for instance in the seemingly vacuous (and optional) use of the reportative morphology in overt indirect speech complements (more below), and in syntactically free-standing sentences interpreted as continuations of indirect speech reports:

(70) Er sagte sie sei   schön. Sie habe   grüne Augen.
      he said   she be-SUBJ *pretty she have*-SUBJ *green eyes*
      'He said she's pretty. She has green eyes, he said."   [Jäger 1971]

It is now straightforward to show that German subjunctives pass, for instance, the What-Happened-Next-Test for not-at-issue eventivity: (71) shows subjunctive marking on a stative predicate cannot be used to answer a question that asks specifically about a speech event:

(71) A: Was ist dann passiert? Hat jemand   es gewagt etwas   zu sagen?
          what is then happened has someone it dared   something to say
          'What happened then? Did anyone dare say anything?'
      B: Marie hat gesagt, dass Jan verrückt ist.
          Marie has said   that Jan crazy   be
          'Marie said that Jan is crazy'
      B'.??Jan sei   verrückt.
          Jan be-SUBJ *crazy*

Towards a semantic analysis of reportative mood

The position of both ancient Greek and German reportative moods within the land-scape of speech reporting is now clear: the reportative contribution is both eventive and not-at-issue.

There are various options for turning this insight into a full-fledged semantic analysis that does justice to the more subtle behaviors noted above and elsewhere in the literature (Fabricius-Hansen & Sæbø 2004, Kratzer 2016). Simply applying our two-dimensional framework however gets us part of the way. We start from the unembedded, free-standing use, as in the second sentence in (70). We translate the subjunctive (or optative) morphology as an intensional operator that is raised above the clause, and that introduces a second dimension with a saying event (presupposing a specific conversation).

(72) $\mathbb{T}(\text{Subj}) = \lambda p_{st} \left\langle \begin{array}{c} p \\ \exists e \in E[say(e) \wedge content(e) = p] \end{array} \right\rangle$

With Intensional Function Application we get (73):

(73) $\mathbb{T}(\text{Sie habe grüne Augen}) = \mathbb{T}([\text{Subj [she have green eyes]]}) =$
$\left\langle \begin{array}{c} {}^{\wedge}green.eyes(x) \\ \exists e \in E[say(e) \wedge content(e) = {}^{\wedge}green.eyes(x)] \end{array} \right\rangle$

Applying our now familiar semantics and pragmatics for 2D logicial forms, (73) will give the right results for the free-standing use of our reportative moods: (i) the saying event is not-at-issue, (ii) it is anaphorically dependent on a salient conversation in the context (which may be partially provided by a preceding at-issue eventive report, as in (70)), (iii) the main proposition p (that she has green eyes in (70)) is at-issue and as such the assertion that p must partially answer the QUD; but (iv) the speaker is not strongly committed to the truth of that main content proposition p.

Now for the embedded cases. Because the second dimension in our Pottsian syntax/semantics projects, it's clear that we won't derive unwanted in situ readings. But we have to be careful about the relative scope of the embedding and the subjunctive in order to project the right content. Take a German negated subjunctive, as in (74).

(74)   Sita sei nicht krank
        Sita be.SUBJ not ill
        'Reportedly, Sita is not ill'

The reportative component contributed by the subjunctive does not end up under the negation (# it's not the case that someone said Sita is/isn't ill), so we might be tempted to say that it projects. But now observe that what projects is not that

someone said Sita is ill, but that someone said she is *not* ill. In other words, we need the negation to determine what the reportative component is, before we can even think about projecting it, i.e. the negation should be scoped under the subjunctive at LF.

(75)   a.   Subj [not [Sita be ill]]

   b. $\left\langle \begin{array}{c} {}^{\wedge}\neg ill(sita) \\ \exists e \in E[say(e) \wedge content(e) = {}^{\wedge}\neg ill(sita)] \end{array} \right\rangle$

Following the pragmatics of 2D logical forms sketched in 4.2 and 4.3, this will eventually give the right context update: someone said (in the presupposed conversation) that Sita is not ill, and it must indeed be the case that she's not ill (assuming Sita's not being ill addresses the QUD and assuming that the proposal that she is not ill gets accepted by the interlocutors). Note however that strictly speaking there is no projection here over and above the stipulation that the subjunctive must take scope over the negation at LF.[22]

The most striking feature of reportative moods (beyond their eventive not-at-issue reportative status), is that their reportative contribution seems to evaporate when embedded in an indirect speech. Not only do we never get an In Situ interpretation (leading to a double report reading like *they said that someone said that Seuthes said things of supreme importance* for (68) or *he said that someone said that she was pretty* for (70)), but there is no projection either. Instead, the reportative meaning component of the optative/subjunctive mood seems to be 'canceled', 'filtered' or 'bound' by (or 'concordant with', in analogy with 'negative concord') the overt reporting verb. On the current analysis we get:

(76)   a.   he [say [Subj [she be pretty]]]

   b. $\left\langle \begin{array}{c} \exists e' \in E'[say(e') \wedge agent(e') = x \wedge content(e') = {}^{\wedge}pretty(y)] \\ \exists e \in E[say(e) \wedge content(e) = {}^{\wedge}pretty(y)] \end{array} \right\rangle$

This peculiar LF may coincidentally lead to a sensible context update: there is speech event, part of a presupposed salient conversation, with content that y is pretty, and there must be a speech event, presumably part of the same salient conversation, with the same content, uttered by x (and the existence of the speech event is what's on the table and what's supposed to answer the QUD). However, (76b) does not quite capture the concord intuition, i.e. that the subjunctive gets filtered out by the overt saying verb, or put differently that the subjunctive here functions as a superficial

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22 It remains to be seen also how plausible this LF is on syntactic grounds, especially when we look at other embeddings. We have not been able to gather reliable data on the possible interpretations of reportative subjunctives in conditionals and other embeddings (apart from explicit indirect speech reports, see below), so we'll leave this for future research.

device to mark that we're in the scope of an indirect discourse construction. In fact, when we would consider what happens when we embed (76) as a whole under negation or in a conditional (or under another speech or attitude verb), the predictions of (76b) would start to falter. To remedy this, there are roughly two options explored in the literature: (i) Fabricius-Hansen & Sæbø (2004) and Bary & Maier (2014), who have tried to give a purely (dynamic) semantic account of this cancelation effect whereby the reportative component is treated as a (rather special type of) presupposition that literally gets bound/satisfied by the at-issue speech report; and (ii) Schlenker and von Stechow, who have analyzed this cancelation at the level of morphosyntactic feature agreement and deletion. In principle we could implement either option in our current framework, but a detailed implementation and comparison would take us too far afield.[23]

5.4 Quotative evidentials

According to the evidentiality literature there are evidentials that involve a direct quote, the so-called *quotatives*.[24] On our analysis in section 4 what are commonly called reportative evidentials are typically not-at-issue non-eventive reports. That means their semantics doesn't introduce a speech event of which they can then specify the form, making the notion of a quotative evidential rather puzzling. A closer look at a sample of the languages that are claimed to have such quotatives, however, strongly suggests that they inhabit a different corner of the reportative landscape than other (reportative) evidentials.

The fact that the form of a speech event is specified already indicates the presence of a speech event variable in the logical form. The Modification Test confirms that quotatives are indeed eventive.[25] Consider first Plains Cree, an Algonquian language, spoken mostly in Saskatchewan and Alberta (Canada). Plains Cree is said to have a quotative evidential marker *itwê* in addition to reportative, nonfactual and dubitative

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23 The morphosyntactic route would require no modification of our semantics and pragmatics, just an added stipulation in the syntax/semantics interface to the effect that in the case of concordant features the embedded one can be semantically ignored.

24 To avoid confusion: this is not the only use of the term *quotative* in the evidential literature. The term is also often used as a synonym for the whole class of reportative evidentials (e.g. in Waldie 2012) and for reportative evidentials that specify the source of the report as in English *according to* (Krawczyk 2012). Aikhenvald (2004) uses the word *quotative* in multiple ways (as reportatives that specify the source (p. 25), as reportatives that involve direct quotation (p. 423), and sometimes both criteria are required to be a quotative (p. 64)). When we conclude below that quotatives are not evidentials in the semantic sense, this primarily concerns constructions that specify the form of a reported speech act.

25 We don't have the data available to apply the other tests for eventivity (What-Happened-Next and Anaphoricity). We leave that for future work and this section can be seen as a first suggestion.

evidentials (Blain & Déchaine 2007). An example is given in (77) (Kâ-Nîpitêhtêw (1998: 52, line 14); via Blain & Déchaine 2007):

(77) "â, namôy," itwêw, "môy êwako ê-wî-atoskâtamân,"   itwêw.
      well NEG   QUO NEG *that* CONJ-FUT-*engage.in(1)* QUO
      '…, "Well, no," he said, "I am not going to engage in that," he said.'
      [Plains Cree]

When we look at the larger context in which the example occurs, it becomes clear that we're really dealing with a description of a speech event, including reference to a specific source, time and conversation:

(78) Today, for example, when I spoke to this one [in the audience], I asked him about these six things, whether he was going to engage in them; and when I asked him the first time, for example, he said "Well, no, I am not going to engage in that."   [Kâ-Nîpitêhtêw 1998: 52]

In no sense does the actual speaker use *itwê* to provide evidence for a scope proposition (given by the reported words).

We discussed in section 4 how non-eventive not-at-issue speech reports are naturally used to specify the source of evidence for a main proposition. Being non-eventive they are less useful for vividly recounting a specific dialogue. Eventive reports can in principle be used for both: they can be used both to provide evidence for the main point and to help tell a story by describing specific speech events. However, as soon as only the form of a speech event is specified (and not the content), as is the case with quotatives, the contribution to the discourse can no longer be an evidential one, as there is no proposition introduced that evidence could be provided for. So-called quotative evidentials are not evidentials in any semantic sense.

Going back to the Plains Cree data, note that morphosyntactically, the quotative is again the odd one out in the evidential paradigm: whereas the other evidentials in this language are particles, *itwê* is a verb (Blain & Déchaine 2007: 261), as it can be inflected for first-, second-, or third-person, and tense/aspect. It also seems to be the only evidential form that allows recursive embedding (*John said: "Mary said '…'* ").

We take these facts about Plains Cree to suggest that we're really dealing with an eventive report construction, with the person, tense and quote each specifying features of a reported speech event – on a par with the English direct speech construction in section 3 and 5.1.

In languages where the quotative marker is not a verb but a clitic or particle, quotatives also behave rather differently from other evidentials. In the evidential systems

of these languages, quotatives are the only ones that can occur with imperatives (see e.g. Boye 2012:204-206 on Kannada). The incompatibility of evidentials with imperatives is expected since the notion of providing evidence to a scope proposition is not applicable in the case of non-propositional speech acts.[26] An eventive analysis, by contrast, allows quotatives with any speech act type, just as we can quote questions and imperatives in direct speech in English. On the basis of these data we suggest that quotatives are best analyzed as eventive, like direct speech constructions but unlike evidentials (in line with Boye's (2012) considerations to exclude quotatives as evidential markers).[27]

We conclude that quotatives live in a different side of the speech reporting landscape than reportative evidentials, viz. the eventive side. Unfortunately we do not currently have the necessary data to determine whether these quotative markers are at-issue or not-at-issue (but we imagine that not-at-issue behavior is what made Blain & Déchaine 2007 and others treat *itwê* as a quotative evidential in the first place).

6   At-issue non-eventive reports: *according to*

We conclude with a brief examination of the most elusive category predicted by our typology: at-issue non-eventive reports. In section 1 we've already suggested that English *according to*, as in (79), fulfills the criteria for this category.

(79)   According to Theresa May, any extension of Article 50 will have to be a short, one-time-only deal.

Take the In Situ Interpretation Test. We can see that, just like Dutch *volgens* in (3), the reportative meaning component of *according to* doesn't project by noting that a conditional like (80) has a non-tautological reading:

(80)   If Piet is ill according to Jan, then he is ill.

In this, *according to* patterns with canonical direct discourse rather than with evi-

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26 Propositional analyses of imperatives exist, most notably that of Kaufmann (2012). Such accounts then would need to explain why it is that only quotatives and not (other) reportative evidentials are compatible with imperatives.

27 Korotkova's (2017) also sets what she calls 'quotative evidentials' apart from other kinds of evidentials. Her definition of quotatives however differs from ours in that in her terminology they do not necessarily involve a direct quote but they express a 'relayed speech act'. Indeed, there seems to be a difference in this respect between e.g. Mbyá *je* which features prominently in her account (using data from Thomas (2014)) on the one hand, and Plains Cree *itwê* and Kannada *anta* on the other, in terms of the behavior of indexicals (see Thomas (2014: section 3.3) for the relevant Mybá data). The analysis proposed in the present paper only holds for quotatives in our stricter sense.

dentials. This in situ behavior indicates that we're dealing with an at-issue reporting strategy.

Next, consider the Anaphoricity Test. An *according to* construction is perfectly fine out of the blue, as in a newspaper headline or opening paragraph. It doesn't seem to require an overt speech report construction already established in the discourse record. It thus patterns with non-eventives, like evidentials and modals, rather than with eventives like direct and indirect discourse and reportative moods.

The Modification Test points in the same direction. Speech act modifiers are clearly out, supporting a non-eventive analysis:[28]

(81)   According to Sumo {*loudly/*over the phone} the movie is terrible.

A semantics that vindicates precisely this behavior is rather straightforward. In fact, it's just an application of the traditional analysis of propositional attitude verbs as intensional operators, as used above for the hearsay operator, (41), in the semantics of reportative evidentials in section 4:

(82)   a. $\mathbb{T}(\text{according to}) = \lambda x \lambda p. hearsay(p,x)$
         b. $\langle p,x \rangle \in [\![hearsay]\!]_w^{f,c} = 1$ iff all w' compatible with what the speaker heard from $[\![x]\!]$ in w, $[\![p]\!](w') = 1$

In sum, our typology predicts four classes of reports. For three of these it's been easy to find examples from different languages that meet the criteria. One class, at-issue non-eventives, is clearly less densely populated, although the predicted semantic profile is quite clear and not in any way contradictory. We've argued here that English *according to* fits the description.

7   Conclusion

We often refer to what other people have said. And we do so for different reasons and using a variety of different constructions. In this paper we've proposed a classification of speech reports along two dimensions: at-issueness and eventivity.

The first distinction has already featured prominently in the (evidentiality) literature. It concerns the distinction between reports where the fact that something is said is at-issue versus reports where not the reportative component but the content of

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28 Some speakers accept some temporal and locative modification:

(i)   According to Sue {yesterday/in New York} the wheather was terrible.

However, it is not clear what the syntax of these acceptable readings is. Is the modifier really modifying the *according to* phrase, or just the individual ('John-in-New-York', as in 'our reporter in New York'), or is it a kind of ellipsed relative clause ('John, who was in New York')?

what was said is the primary piece of information.

The second distinction of our classification has received much less attention, but is, we claim, just as important to understand the differences between the various speech report options natural languages offer and the ways these are used in communication. Only some types of reporting introduce a speech event into the discourse record, presupposing a particular conversation. It is only these eventive reports that can be used to describe certain specific details about the speech event itself – e.g. focusing on the actual words, the manner of speaking, or the content expressed. It is this aspect that makes eventive reports especially useful for vivid characterizitions of dialogues between characters in a story. By contrast, non-eventive speech reports are more at home in everyday communication, where it can be useful to specify what kind of evidence we have for certain claims – whether to convince the hearer of the primary content or rather to distance ourselves from it.

These two distinctions result in four classes of speech reports. In this paper we have proposed semantic analyses for each class, modeling their behavior on the tests that we used to distinguish them. Sketching the landscape along these two dimensions, has brought some order to the scattered body of data and theories about the various reporting constructions. In addition to the two well-known classes of reporting constructions – at-issue eventives (direct and indirect discourse) and not-at-issue non-eventives (reportative evidentials) – we also identified report markers that express the two other possible combinations of features. While *according to* is arguably best understood as a non-eventive at-issue report marker, reportative moods have the opposite combination of features. By charting the landscape of speech reports, we've brought out new insights on the nature of so-called quotative evidentials (as constructions that are eventive and not properly deserving the label 'evidential') and reportative moods (as report markers that have their not-at-issueness in common with evidential markers, but share their eventivity with regular indirect discourse).

At a high level of abstraction, speech reports all share the same two propositional components: someone said that *p*, and *p* itself. But they differ in how they put these components to work. In this paper we have tried to pinpoint exactly what the various speech reports share and where they differ, and how those differences explain various observations in the literature on speech reporting, evidentiality, and quotation.

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