

EVIDENTIALS AND ATTITUDES

Languages vary in whether evidentials can be syntactically embedded under attitude verbs. The current view attributes non-embeddability to the semantics of respective markers: their illocutionary nature. I argue against such view and propose a theory wherein certain speech acts with evidentials can be embedded. I further propose that (non-)embeddability of evidentials depends on two factors: the embedding strategy and the embedder.

1. The empirical landscape. Some (genetically and geographically unrelated) languages do not allow evidentials under attitude predicates, e.g. Abkhaz (Chirikba 2003), Cheyenne (Murray 2010) or Cuzco Quechua (CQ) (Faller 2002), exemplified below. Normally, CQ evidential enclitics attach to any phrase. In (1) direct *-mi* is banned inside the nominalized embedded clause and can only appear on its edge, being syntactic part of the main clause:

(1) Marya ni-wa-rqa-n Pilar-(***mi**) chayamu-sqa-n-ta-**mi**

Marya say-1O-PST1-3 Pilar arrive-PST2-3-ACC-DIR

p = ‘Marya told me that Pilar arrived’. *Speaker has direct evidence that p .* (Faller 2002, p. 222, ex.183a)

Many other languages allow evidentials under attitude predicates, e.g. Georgian (Boeder 2000), German (*sollen*, Schenner 2010), Korean (Lee 2013), St’át’imcets (Matthewson et al. 2008), Tibetan (Garrett 2001), Turkish (Şener 2011).

2. The common view. The distinction between embeddable vs. non-embeddable evidentials is often regarded as a reflex of the general distinction between two classes of evidentials (Faller 2002, 2006; Matthewson et al. 2008): those that operate at the propositional level (treated as epistemic modals) and those that operate at the speech act level (= illocutionary). Most empirical tests that distinguish between the two classes give controversial results (Matthewson 2012). As an unmistakable diagnostic of illocutionary evidentials, I will use the ability to report speech acts performed by a third party (suggested by Faller (2002, 2006) for CQ): (1) questions in CQ and Kaalalisut (Bittner 2008), which can be rendered by the English ‘I heard someone asking you whether p ’; (2) imperatives in Mbyá (Thomas forth) and Kaalalisut, roughly equivalent to ‘I heard someone directing you to do p ’. (Epistemic) modals do not behave this way, which undermines citematthewson2012’s claim that *all* evidentials are bona fide modals. Note that this diagnostic only applies to *reportative* evidentials. So, non-embeddability is often viewed as a trait of illocutionary evidentials. If speech acts only correspond to root clauses and illocutionary evidentials modify speech acts, we expect such evidentials to be non-embeddable. This view predicts a one-to-one mapping between illocutionary evidentials and non-embeddable evidentials. However, there are counter-examples: Mbyá *je* is embeddable and illocutionary (Thomas forth.). There is also growing evidence for embedded speech acts of other types, e.g. imperatives (Kaufmann 2014) and rhetorical questions, so there is nothing *a priori* wrong with embedding speech acts with evidentials.

3. Proposal. I argue (contra AnderBois 2014) for exceptional status of reportative evidentials and give them semantics of quotational markers, reimplementing Faller (2002)’s semantics for evidentials within Krifka (forth.)’s framework (based on Szabolcsi 1982), wherein speech acts can be arguments to connectives and attitude predicates.

3.1. The formalism. Speech acts involve a change of states: from one where certain commitments between interlocutors do not hold to one where they hold. This change is recorded as the change in indices, where index is a time-world point. Domain of indices I is ordered by a relation of precedence \leq that is transitive, reflexive and left-linear. This generates a tree of indices where each index is the root of an option space that represents the future. Speech acts update the context so that the utterance index c_t moves forward in its option space. Index change is defined via *index incrementation* with a certain illocutionary condition F and is an instruction to find the closest index i' such that $i \leq i'$ and that F is true of i' (after Thomas (forth.), who provides another empirical application of this formalism, I assume that time is discrete). Conditions on commitments are recorded with the help of illocutionary operators, which are defined in terms of illocutionary predicates, e.g. *Assert* for assertions. We define Speech Act Potential (SAP, an element that can be used to perform a speech act in a context) as a function that maps speaker x , addressee y and an index i to an index i' that increments i with a specific condition on commitments of x and y . A speech act is an update of the common ground with a speech act potential. The illocutionary operator responsible for assertions is defined in (2). I depart from Krifka in that I add the definedness condition that the speaker believes p . It functions as a standard sincerity condition associated with plain assertions in speech act theory (Vanderveken 1990):

(2) a. $\llbracket \text{ASSERT} \rrbracket^{M,g} = \lambda p.\lambda x.\lambda y.\lambda i.i' [\text{Believe}(p)(x)(i) . i \leq i' [\text{Assert}(p)(x)(y)(i')]]$

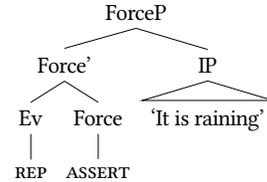
b. $\text{Assert}(p)(x)(y)(i)$ is true iff in i , x is taking up assertive commitments towards y with respect to p

3.2. Semantics for evidentials. Illocutionary operators head ForceP (after Rizzi 1997) and are functions from propositions to speech act potentials. In the spirit of (Faller 2002), I analyze evidential markers as SAP modifiers

that take SAP as an argument: assertions and questions in CQ (Faller 2002), imperatives in Mbyá (Thomas forth.). Type of information source signalled by the evidential is recorded as a definedness condition. The semantics for the reportative *-si* is formulated in (3), other illocutionary reportatives are modelled likewise:

$$(3) \quad \llbracket \text{REP} \rrbracket = \lambda A. \lambda p. \lambda x. \lambda i. \lambda i' [\exists z [z \notin \{x, y\} \wedge \exists i'' \leq i \wedge i'' = P(p)(z)(x)(i) \cdot \text{PRESENT}(p)(x)(y)(i')]]$$

- (4) Para-sha-n-si.
rain-PROG-3-REP
 p = ‘It is raining.’
Speaker was told that p .
(Faller 2002, 3, ex.2b)



$$(5) \quad \llbracket [\text{ForceP} [\text{Force}' \text{ REP ASSERT }] [\text{IP It is raining }]] \rrbracket^{M, c, g} = \\ \lambda x. \lambda i. \lambda i' [\exists z [z \notin \{x, y\} \wedge \exists i'' \leq i \wedge \text{Assert} (\llbracket \text{It is raining} \rrbracket^{M, c, g}) (z)(x)(i'') \cdot \\ \text{Present} (\llbracket \text{It is raining} \rrbracket^{M, c, g}) (x)(y)(i')]]$$

3.3. Embedded speech acts. Speech acts correspond to root clauses that are of syntactic category ForceP (following Rizzi 1997). However, certain root phenomena (e.g. German V2) can be, to some extent, embedded. Provided a strict correspondence between syntax and semantics, such Embedded Root (ER) clauses should be interpreted as embedded speech acts. The crucial point is that (in)ability of speech acts to appear in the complements of attitude predicates stems from selectional properties of respective predicates rather than from some property of speech acts. Some predicates, most notably speech verbs, are known to embed things that otherwise resist embedding such as ER and discourse adverbials (*frankly*). This is attributed to their ability to take larger complements that host a speech act projection (Sundaresan 2012), or, in Krifka’s terms, ForceP.

3.4. Predictions. The theory I develop makes welcome predictions. **I.** If evidentials are analyzed as SAP modifiers, then such evidentials should be able to appear in the complements of predicates that license e.g. ER (Heycock 2005, Aelbrecht et al. 2012, a.o.). This prediction is borne out in Mbyá where reportative is only licensed by ‘say’ and ‘tell’. **II.** If evidentials are analyzed as SAP modifiers and cannot be embedded, this cannot be attributed solely to their semantics (contra Faller 2002). I suggest a syntactic explanation: evidentials are confined to finite clauses. This hypothesis explains why (1) is ungrammatical: it is a nominalization. (Non-)embeddability depends on whether or not the language has finite complements, which embed evidentials, as opposed to most nominalizations and infinitives. In other words, languages like Cuzco Quechua do not embed evidentials because they lack finite embedding, not because of the semantics of evidentials. This is also the case in Cheyenne (Murray 2010) and Daghestanian languages, where evidentials compete for the same morphological slot with dependent mood markers, and therefore cannot appear in subordinate clauses. **III.** If (non-)embeddability depends on the type of complementation, then there should be languages, where only finite clauses embed evidentials while nominalizations do not. The prediction is borne out: Turkish is such a language (Şener 2011).

4. Conclusions. Some, and only some, evidentials are special and can report speech acts, which contradicts the idea of a unified semantics for all evidentials alike: reportatives in some languages are special and function as quotatives. I maintain the term illocutionary for such evidentials and propose a new theory thereof within Krifka (forth.)’s formalism. The empirical payoff is as follows. Unlike (Faller 2002), my account is compliant with cross-linguistic facts and allows to embed speech acts with evidentials. Unlike (Murray 2010), my account is unidimensional and fully compositional, thus offering a tight connection with syntax and having space to incorporate syntactic restrictions on embedding. I reduce a case of the apparent semantic variation in evidentials to variation in the syntax of embedding constructions. I argue that embeddability of evidentials depends (1) on the embedding strategy (previously unnoticed generalization): both illocutionary and non- illocutionary evidentials are banned from non-finite clauses (data from CQ, Daghestanian, Cheyenne and Turkish); (2) on the embedder: not every attitude predicate takes speech act arguments, which explains the distribution of e.g. reportative in Mbyá. The empirical success of this explanation confirms that it is fruitful to look at the properties of the embedder to explain the distribution of embedded elements, see e.g. (Sudo 2012) for shifted indexicals and (Anand and Hacquard 2013) for epistemic modals.

Selected references. FALLER M. 2002. *Semantics and pragmatics of evidentials in Cuzco Quechua*. PhD thesis, Stanford. KRIFKA M. Forth. Embedding speech acts. *Recursion in language and cognition*. MATTHEWSON L. ET AL. 2008. Evidentials as epistemic modals: Evidence from St’át’imcets. *Linguistic Variation Yearbook* 7. MURRAY S. 2010. *Evidentiality and the structure of speech acts*. PhD thesis, Rutgers.