

Introduction

Puzzle: cross-linguistic variation

- **Some languages do not license evidentials in attitudinal complements:** Abkhaz (North-west Caucasian; Chirikba 2003), Cheyenne (Murray 2010), Daghestanian languages (T. Maisak, p.c.); Eastern Pomo (Pomoan), Maricopa (Yuman), Quechua, Tucano (East Tucanoan), Tariana (North Arawak) (Aikhenvald 2004)

- (1) Cuzco Quechua (Faller 2002: 222, ex.183a)
- a. evidential marker *within* embedded clause
- **Marya ni-wa-rqa-n [Pilar-**mi** Marya say-1O-PST1-3 Pilar-**DIR** chayamu-sqa-n-ta]*
- arrive-PST2-3-ACC
- b. evidential marker *outside* embedded clause
- Marya ni-wa-rqa-n [Pilar Marya say-1O-PST1-3 Pilar chayamu-sqa-n-ta]-**mi** arrive-PST2-3-ACC-**DIR***
- ‘Marya told me that Pilar arrived, *I see*’.
- NB: ‘mi’ scopes over the entire sentence, not just the complement clause

- **Some languages do:** Bulgarian (South Slavic; Sauerland and Schenner 2007); Georgian (Kartvelian; Boeder 2000); German (Germanic; Schenner 2010); Japanese; Korean (Lee 2013); Standard Tibetan (Tibeto-Burman; Garrett 2001); St’át’imcets (Salish; Matthewson et al 2008); Turkish (Turkic, Schenner 2010, Şener 2011); Zazaki (Iranian; Gajewski 2005)

- (2) Georgian
- maria pikrobs [rom mama mis Maria think.3SG.S.PRES COMPL father her c’odn-**ia** xuti ena]*
- know.3SG.s-**EV.PST** five language.NOM
- ‘Maria thinks that—as *I was told/infer*—her father knew five languages’.

Current view: semantic non-uniformity

- Two classes of evidentials (Faller 2007, Matthewson et al. 2008, a.o.)
 - ▷ **Modal evidentials**, operate at propositional level
 - ▷ **Illocutionary evidentials**, operate at speech act level
- The puzzle reduced to variation in evidentials:
 - ▷ St’át’imcets type: modal, embeddable under different operators, e.g. attitude verbs
 - ▷ Cuzco Quechua type: illocutionary, non-embeddable
- Background assumption: speech acts are not embeddable

This paper

- **Question 1**
Do we need the modal vs. illocutionary distinction to solve the puzzle? **No**
- **Question 2**
Do we need the modal vs. illocutionary distinction at all? **Yes**

Question 1

Independent problems with the current view

- **Problem 1:** not a given that speech acts are scopally inert
 - ▷ Speech acts serve as arguments to connectives (Krifka forth)
 - ▷ Speech acts appear in attitudes: e.g. imperatives (Kaufmann 2014), exclamatives (Zanuttini and Portner 2003), rhetorical questions (Caponigro and Sprouse 2007)
- A priori, evidential speech acts should also be embeddable; if they exist ...
- **Problem 2:** little empirical support for the modal vs. illocutionary distinction
 - ▷ less cross-linguistic variation than previously assumed, the distinction might be unnecessary (Matthewson 2012)
 - ▷ the existing variation, e.g. in perspective shift in attitudes, needs a separate explanation (Korotkova 2015)

Embedding patterns

- Turkish: *partial* embeddability
 - ▷ *miş* in finite complements: evidential semantics
- (3) Turkish, finite complement (Schenner 2010: 209, ex.45)
*Ali de-di ki Maria dün bir şiir yaz-**miş***
Ali say-**DIR.3SG** COMP Maria yesterday a poem write-**IND.3SG**
‘Ali said that Maria, *apparently*, wrote a poem yesterday.’
 - ▷ *miş* in nominalized complements, under the same verb: only aspectual semantics (Schenner 2010, Şener 2011)
- Additional constraint on (modal) evidentials in non-finite clauses is needed
- Once in place, nothing else is needed: among *all* languages that do not embed evidentials, *none* has finite complementation and special forms are used:
 - ▷ nominalizations: Aymara; Quechuan (Cuzco Quechua, Lefebvre and Muysken 1988; Huallaga Quechua, Weber 1983) and East Tucanoan languages (Aikhenvald 2004)
 - ▷ dependent moods: Abkhaz; Cheyenne; Daghestanian; Tariana; West Greenlandic (Fortesque 1984)
 - ▷ forms with reduced categorial distinctions: Maricopa (Cristofaro 2013)

Conclusion 1

- The illocutionary vs. modal divide orthogonal to embedding
- All evidentials, regardless of their other semantic properties, are banned from non-finite clauses
- Source of cross-linguistic variation: languages that do not license evidentials in attitudinal complements just lack certain kind of embedding
- Incompatibility with nominalizations does not favor the dichotomy view on evidentiality: epistemic and speech-act elements pattern together with respect to nominalizations (Alexiadou 2001)

- (4) Greek (Alexiadou 2001: 48, ex.57)
- **i katastrofi ton stihion pithanos/ilikrina*
- DEF destruction DEF evidence.GEN probably/frankly
- Intended: ‘probably/frankly destruction of the evidence’
- Incompatibility with nominalizations falls out naturally under a unified treatment of evidentials as functional heads (Rooryck 2001a,b; Speas 2003), so the constraint has a syntax-pragmatic explanation

Question 2

Special subclass of hearsay evidentials

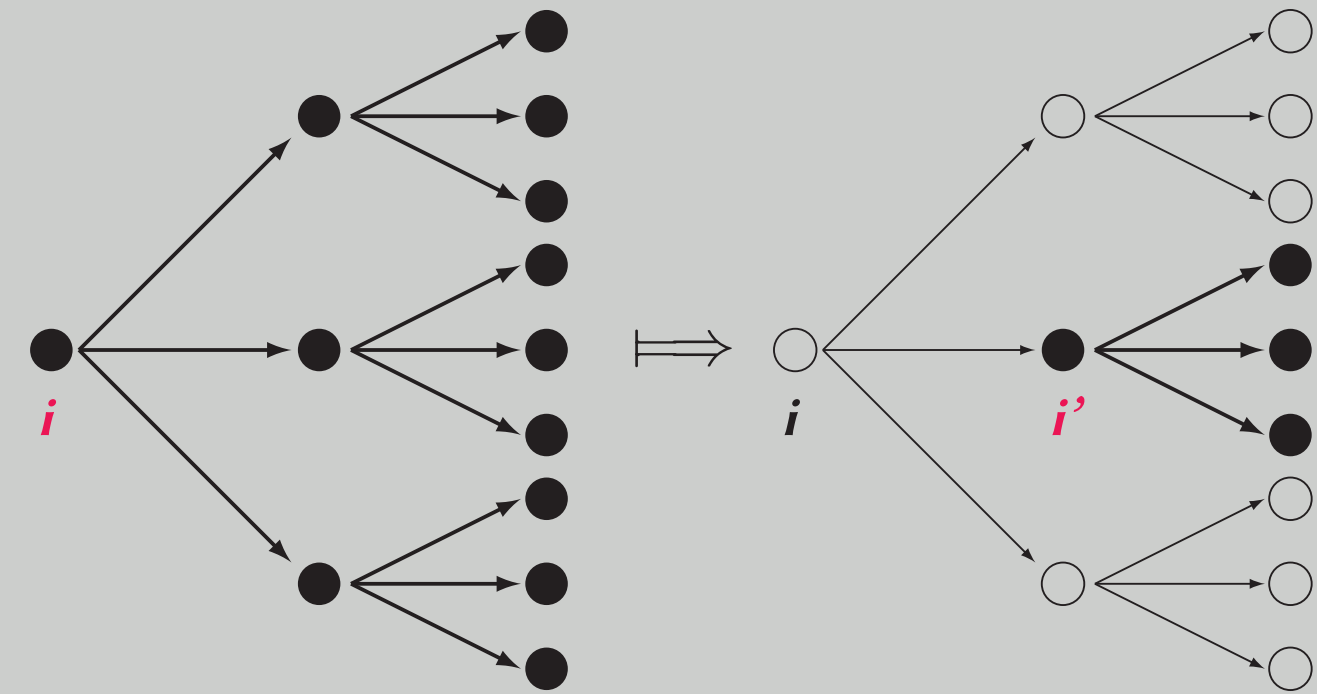
- **Reportative** evidentials in some languages report a speech act made by a third party

	Questions	Imperatives	(5) Cuzco Quechua (Faller2002: 235, ex.197b)	(6) Mbyá (Thomas 2014: 3, ex.7)
Cuzco Quechua <i>si</i> (Faller 2002)	✓	*	<i>Pi-ta-s Inés-qa watuku-sqa?</i>	<i>E-me’ẽ je ka’ygua chevy pe</i>
Kaalalisut <i>quuq</i> (Bittner 2008)	✓	✓	who-ACC- REP Inés-TOP visit-PST2	2.IMP-give REP mate me to
Mbyá <i>je</i> (Thomas 2014)	*	✓	‘Someone said: Who did Inés visit?’	‘Someone said: Give me the mate!’

- Faller (2002, 2007) for Quechua: speech-act readings in questions is a diagnostic of illocutionary evidentials, which take speech acts as arguments
 - ▷ Background assumption: if hearsay evidentials are illocutionary and other evidentials occupy the same morphological slot, they all have the same semantics
 - ▷ Background assumption is wrong: elements that are complimentary distributed morphologically need not be of the same semantic type (cf. past vs. future in many languages; person vs. number in the Georgian verb, Anderson 1986)
- Only hearsay evidentials in some languages satisfy the only valid diagnostic of illocutionary evidentials (overlooked by Matthewson (2012) due to typological rarity; doubled in case of imperatives)

Formalism (Cohen and Krifka 2014, Krifka forth.; see also Thomas 2014): speech acts as option space changers

- Contexts, type c : $\langle c_s, c_a, c_t \rangle$ where c_s is the speaker, c_a the addressee, c_t for the utterance index
- Indices (world-time points), type s ; each index is the root of an option space that represents the future
- Speech acts involve a change of states: from one where certain commitments do not hold to one where they do hold
- Change of states is recorded as the change in indices: speech acts update the context so that the utterance index c_t moves forward in its option space



- Time is treated as discrete for the simplicity of representation (with Thomas 2014); nothing hinges on it so time can be treated as dense (as in Krifka forth.)
- Index change is defined via *index incrementation* with an illocutionary condition

- (7) Find the closest index i' such that $i \leq i'$ and that an illocutionary condition F is true of i' : in short, $i \leq_{MIN} i' \wedge F(i')$

- Conditions on commitments are recorded via illocutionary operators, which are defined in terms of illocutionary predicates, e.g. *Assert* for assertions
- Speech Act Potential (SAP, an element that can be used to perform a speech act in a context): a function that maps a speaker x , an addressee y and an index i to an index i' that increments i with a specific condition on commitments of x and y

- (8) $\lambda F. \lambda x. \lambda y. \lambda i. \lambda i'. i \leq i' \wedge F(x)(y)(i')$, where F is a variable over illocutionary predicates, x is the speaker and y is the addressee

- A speech act is an update of the common ground with a speech act potential
- illocutionary operators head ForceP (Rizzi 1997) and are functions from propositions to speech act potentials

- (9) semantics for the question operator QUEST (following Lauer and Condoravdi 2012, Lauer 2013):

- a. $\llbracket \text{QUEST} \rrbracket^{c,g} = \lambda Q. \lambda x. \lambda y. \lambda i. \lambda i'. i \leq_{MIN} i' \wedge \text{Quest}(Q)(x)(y)(i')$
- b. $\text{Quest}(Q)(x)(y)(i)$ is true iff in i , x commits to a preference such that y asserts one of the propositions p in the answer set Q

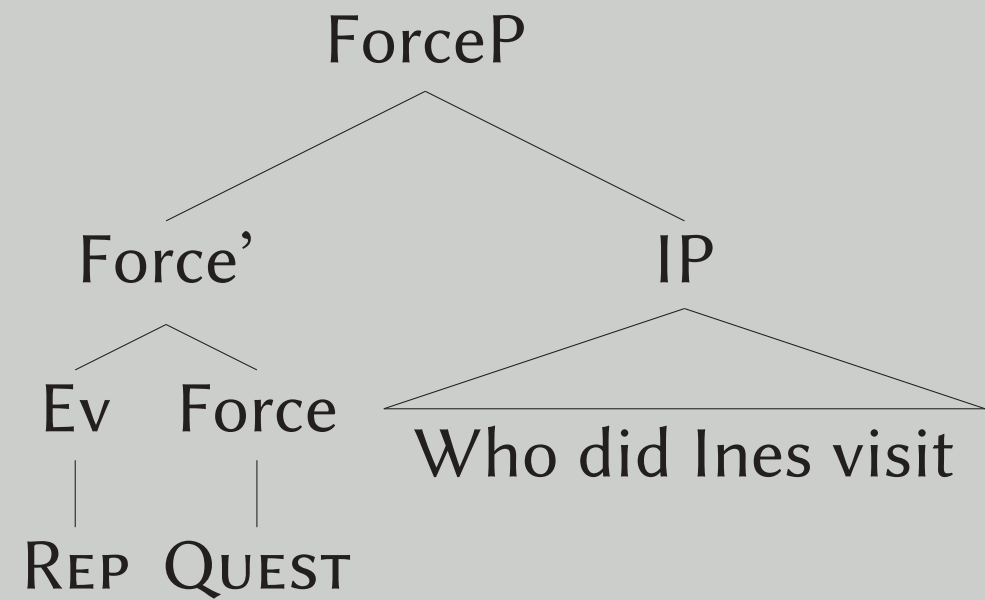
Illocutionary hearsay evidentials: reimplementing (Faller 2002)

- Illocutionary evidentials (in the sense defined above) take SAP as an argument and return a proposition

- (10) $\llbracket \text{REP} \rrbracket^{c,g} = \lambda F. \lambda x. \lambda y. \lambda i. g(z) \notin \{x, y\} \wedge \exists i'', i''' \leq i \wedge i''' = F(g(z))(x)(i'')$

- Different speech acts have the same type: this predicts that an evidential can take modify any SAP, be it a command or an inquiry (a desirable outcome)
- Applied to Cuzco Quechua *si* in questions, it gives us the following semantics for (5):

- (11) $\llbracket \llbracket \text{ForceP} \llbracket \text{Force}' \text{ REP QUEST} \rrbracket \llbracket \text{IP Who did Ines visit} \rrbracket \rrbracket^{c,g}$
 $= \lambda x. \lambda y. \lambda i. g(z) \notin \{x, y\} \wedge \exists i'' \leq i \wedge i'' \leq_{MIN} i' \wedge \text{Quest}(\llbracket \text{Who did Ines visit} \rrbracket)(g(z))(x)(i')$



Conclusion 2

- No special treatment needed for speech acts embedded under evidentials
- Questions for future research:
 - ▷ What is the *illocutionary* contribution of such sentences as in (5)?
 - ▷ Why only evidentials in some languages behave this way?
 - ▷ What is the connection between illocutionary hearsay evidentials and quotative particles?