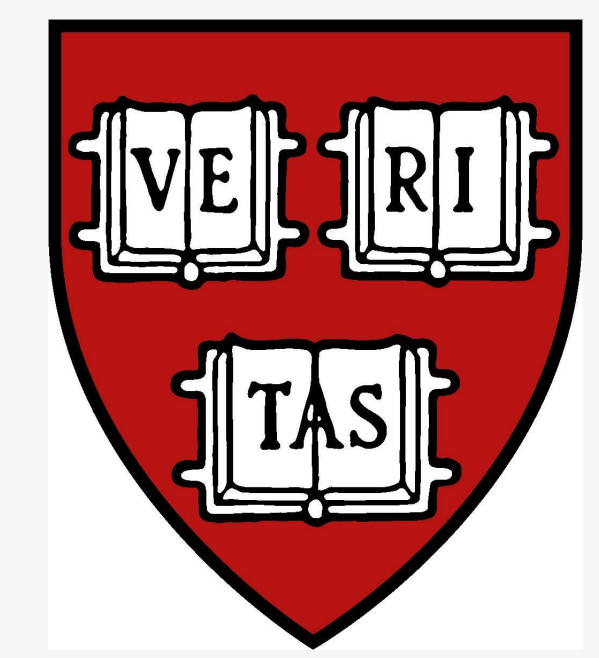


# Complementizers in matrix contexts

## Reporting attitudes without attitude verbs



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### Matrix complementizers

- (1) **Malayalam** (*India; Dravidian*)
- a. prime minister varunnu **ennu** john paranju  
prime minister coming C John said  
“John said that the Prime Minister is coming”
- b. prime minister varunnu **ennu**  
prime minister coming C  
“Someone said that the Prime Minister is coming”
- (2) **Ewe** (*Ghana, Togo; Niger-Congo*)
- a. john bù **be** yè nya nu  
John think C LOG know thing  
“John thinks that he is smart”
- b. john **be** yè nya nu  
John C LOG know thing  
“John says that he is smart”
- (3) **Tigrinya** (*Semitic; Eritrea*)
- a. hiwät anä näti mäṣṣaf ʔanbib-ä **ʔil-a** ti-ammin  
Hiwet 1SG DET book read-1S C-3F 3F-believe  
“Hiwet<sub>i</sub> believes she<sub>j</sub> read the book”
- b. hiwät anä näti mäṣṣaf ʔanbib-ä **ʔil-a**  
Hiwet 1SG DET book read-1S C-3F  
“Hiwet<sub>i</sub> says she<sub>j</sub> read the book”

### No covert attitude verbs

(1-3b) look like they might involve a null or elided matrix verb. But syntactic operations that target the hypothetical matrix clause fail:

- the attitude event cannot be modified by adverbs (4)

- (4) **No adverbial modification of saying event**
- naomi aman mänbär gäziʔ-u **ʔil-a** käs \*(täzaräb-a)  
Naomi Aman chair buy-3M C-3F quick say-3F  
“Naomi said quickly that Aman bought a chair.”

- wh- questions can't target the attitude event (5) (4)

- (5) **Wh- questions can't target the saying event**
- mifas ʔiy-a hiwät mahari fiori gäziʔ-u **ʔil-a**  
when COP-3F Hiwet Mahari flowers buy-3m C-3F  
“When did Hiwet say that Mahari bought flowers?”  
= when did the buying happen  
≠ when did the saying happen

- negation of the attitude event is impossible
- invariant for TAM

**From this, we conclude the genuine absence of an embedding attitude predicate and concomitant clausal structure.**

### Overview

Languages like Malayalam (1), Ewe (2), Tigrinya (3) have elements that occur both as complementizers in embedded contexts (1-3a) and reportative markers in matrix contexts (1-3b)

**Proposal: By adopting a Kratzer (2006)-style analysis, which locates modal quantification of attitude predicates in the complementizer, we unify embedded and matrix uses of complementizers**

- (1-3b) are genuinely monoclausal, not the result of ellipsis or null verbal elements (see (4-5))
- In Ewe and Tigrinya, the complementizer alone introduces an author arguments in matrix clauses; in Malayalam the attitude holder is understood to be some non-participant individual
- This morpheme licenses indexical shift in Tigrinya (3) and logophoricity in Ewe (2, Clements (1975)), both of which have been attributed to the presence of an author argument (Anand, 2006) and considered embedded clause phenomena

### Decomposition of attitude verbs

- The “received view” of attitude verbs: quantification over worlds takes place in the attitude verb; complementizers are vacuous.
- Kratzer (2006): this quantification takes place in the complementizer!
- Accounts for attitude verbs taking DP arguments: “John believes **the notion** that Orcutt is a spy.”
- When no DP present, attitude verbs compose with complementizer via a method of composition called Restrict (Chung and Ladusaw, 2004).

### Preliminary denotations

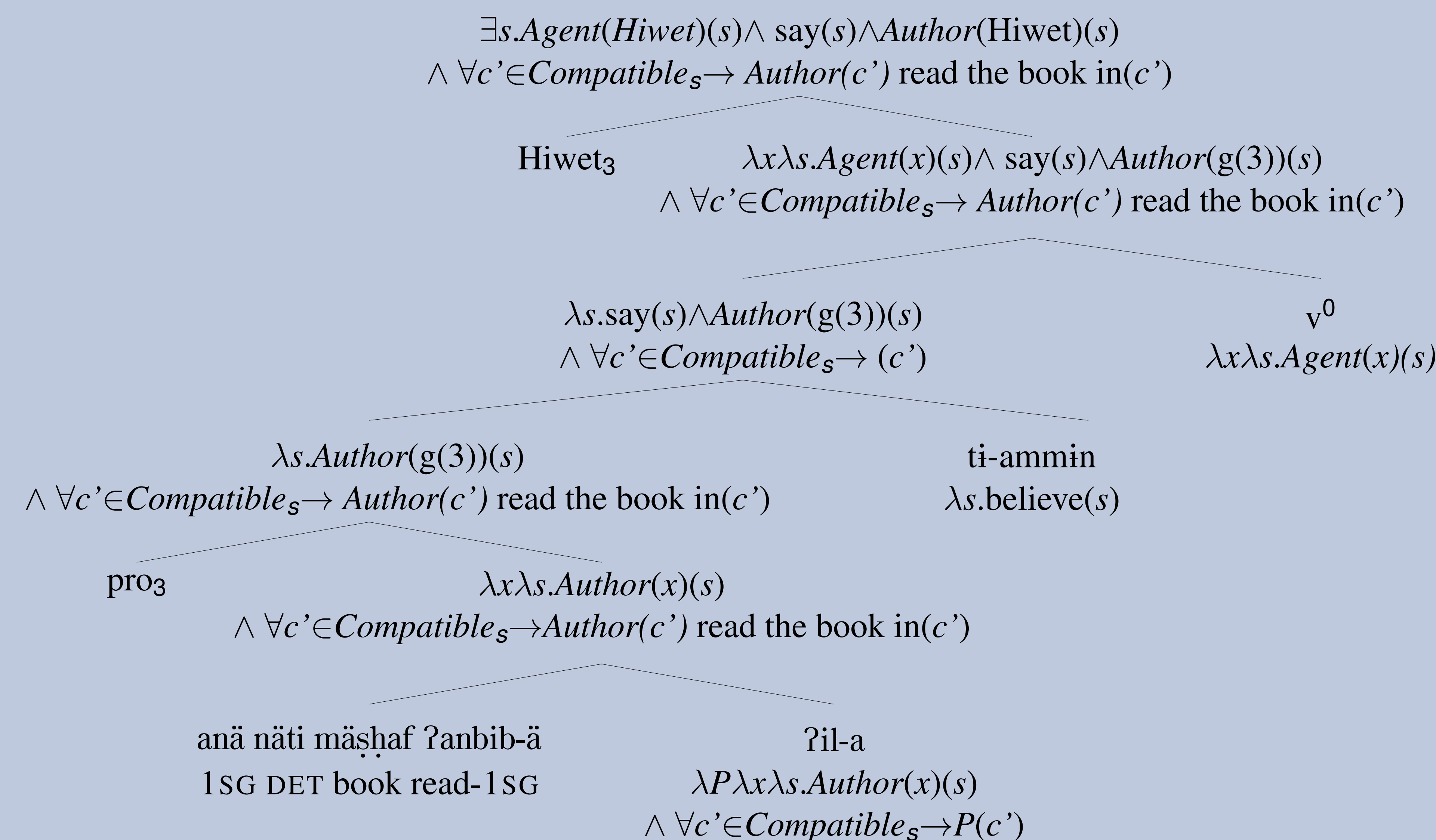
**Received view:**

- (6) a.  $\llbracket \text{believe} \rrbracket = \lambda p \lambda x. \forall w' [\text{Dox}_x(w') \rightarrow p(w')]$   
b.  $\llbracket \text{that} \rrbracket = \lambda p \lambda w. p(w)$

**Kratzer (2006):**

- (7) a.  $\llbracket \text{believe} \rrbracket = \lambda x \lambda s. \text{believe}(x)(s)$   
b.  $\llbracket \text{that} \rrbracket = \lambda p \lambda x. \forall w' [\text{compatible}(x)(w') \rightarrow p(w')]$   
c.  $\llbracket \text{believe that } \phi \rrbracket = \lambda x \lambda s. \text{believe}(x)(s) \wedge \forall w' [\text{compatible}(x)(w') \rightarrow \phi(w')]$

### A sample derivation (3a.)



### Our proposal

- We adopt the decompositional approach to attitude verbs described by Kratzer (2006).
- We further adopt Sundaresan's (2018) proposal for indexical shift, which she attributes to a context shifting operator. Shiftable pronouns retrieve their reference from the shifted context.
- This gives us an operator that quantifies over worlds and accounts for the indexical shift facts.
- Finally, we add to this an *Author* argument which is saturated by the nominal sitting above the operator, in Tigrinya and Ewe, or by existential closure in Malayalam.

(8)  $\llbracket \text{that} \rrbracket = \lambda p \lambda x \lambda s. \text{Auth}(x)(s) \wedge \forall c' \in \text{Cmpt}(s) \rightarrow p(c')$

- When embedded, the attitude holder will be doubled up. This is welcome; the *Author* argument and subject of the matrix attitude verb, when both present, must corefer.
- In matrix cases, the operator still quantifies over worlds, leading to attitude-verb-like meaning; the nominal, as *Author*, acts a kind of subject.

### Why SAY?

An outstanding problem:

Matrix uses of complementizers have a meaning like *say* or *according to*. **Where does this meaning come from?**

- There are potentially several technical solutions to this (e.g. a covert SAY operator)
- Any solution needs to explain: why *say* in particular and not other attitudes *believe*, *want*, *dream*, etc.
- One possibility: Pragmatics. We have ready access to what people say, but not what they believe, dream, etc.

### Conclusion

- Languages use unembedded complementizers to report attitudes/speech
- This is analyzable if we assume that the complementizer is responsible for modal quantification under attitude verbs
- Also accounts for the uniform behavior of indexicals /logophors under complementizers, embedded or otherwise
- Novel observation: indexical shift, logophoricity are possible in root clauses, and find straightforward analysis under our proposal.

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