

The Greek possessive modal *eho* as a special agentive modality



Isabel Papadimitriou, Cleo Condoravdi

Stanford University

{isabelvp, cleoc}@stanford.edu

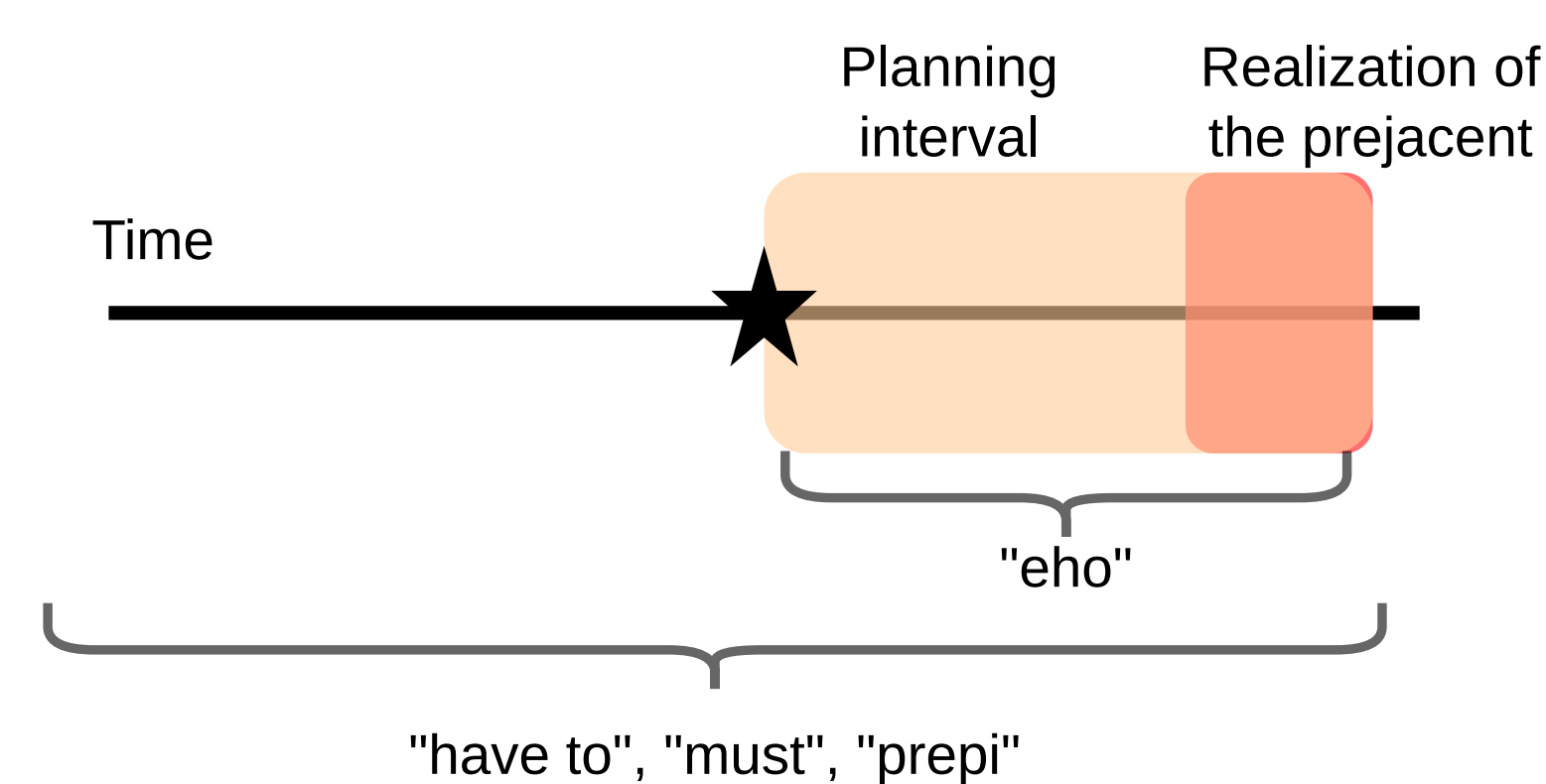
Overview

- In Greek, the word for possession, *eho*, has a necessity modal use with a clausal complement.
- *Eho* is a **priority modal**: it tracks not what actually happens, but what ought to happen (ex. 4).
- *Eho* has unusual **felicity restrictions** and gives rise to **special inferences** (*eho* vs. *prepi*).

Planning Interval Constraint

Uttered in July:

- (1) # **Eho** na psifiso ton Noemvrio.
have.1SG SUBJ vote.1SG the November
 ‘I have to vote in November.’



Conflict Avoidance The agent ensures there is no conflict with any of the preconditions for bringing about the prejacent.

- (2) Den ginete na metakomiso sto eksoteriko akoma, **eho** na psifiso ton Noembrio.
 NEG possible SUBJ move.1SG to-the exterior yet **have.1SG** SUBJ vote.1SG the November
 ‘I can’t move out of the country yet, I have to vote in November.’

Triggering Event: Onset of obligation. *Eho* is felicitous only **post-commitment**.

- (3) **Prepi/Ehoulme** na bothisoulme me to katharisma meta to parti.
must/have.1PL SUBJ help.1PL with the cleaning after the party
 (Appeal vs. Reminder) ‘We have to help with the cleaning after the party.’

Main Idea

Eho describes obligations arising from the agent’s **intentions structured as plans** at a given time.

Intentions Structured as Plans (ISAPs)

- *Eho* expresses obligations arising from an agent **having taken on** the realization of some intention.
- Take on $p \approx$ be in the **process of bringing about** p
- Realizing an intention is intricately tied to the notion of **planning** [Bratman, 1987]
- Intending to bring something about puts constraints on what you do before you start to bring it about
- The intentions that an agent has taken on constitute a special type of intention: **intentions structured as plans** [Bratman et al., 1988]
- An *eho* obligation does not exist before the agent has structured their intention as a plan. Promises and other commitments automatically create such obligations.

• Michael Bratman. *Intention, Plans and Practical Reason*. 1987. • Michael E Bratman, David J Israel, and Martha E Pollack. Plans and resource-bounded practical reasoning. 1988. • Cleo Condoravdi and Sven Lauer. Anankastic conditionals are just conditionals. 2016. • Thomas Grano. The logic of intention reports. 2017.

Formalization

Intentions can be modeled as Effective Preferences (EPs): preferences that guide action choice [Condoravdi and Lauer, 2016]. ISAPs constitute a special kind of intention.

To model ISAPs, we use the $RESP(A, p)$ relationship between an agent A and a proposition p : A intentionally **brings it about** that p . This is how Grano [2017] analyzes the logic of intention reports (“I intend to leave”, “She intends for John to leave”).

Main Idea: *eho* has particular requirements for its ordering source.

We propose that the modal ordering source of *eho* is constrained to be a function from world-time pairs w to propositions p such that, for an agent A that is the referent of the subject of *eho*:

$$RESP(A, p) \in \max(EP(A, w)) \quad (a)$$

That is: that A intentionally brings about p is in the top tier of A ’s effective preferences at w .

Deriving further restrictions

So far, we have proposed that the prejacent of *eho* is planned. What would we expect from a prejacent that requires a plan?

Eho doesn’t have to track what actually happens.

- (4) **Eihe** na diavasi mono dio arthra, alla telika den diavase tipota.
 ‘He only had to read two papers, but in the end he didn’t read anything.’

The prejacent of *eho* must take up time and require multiple planned steps

- (5) # **Eihe** maheri, opote **eiha** na tou doso ola mou ta lefta.
 ‘He had a knife, so I had to give him all my money.’ (intended)

Eho can only scope over disjunction when the disjunction involves **possible contingencies** that the facts of the world have not yet determined (as opposed to disjunction due to indecision or incomplete information).

- (6) Kathe mera **eho** na bgalo i tin obrella i tin soba, exarate apo ton kero.
 ‘Every day I either have to either bring out the sun umbrella or the heater, depending on the weather.’

Eho is infelicitous when used for general obligations, which do not involve a prejacent that can be specifically planned for.

- (7) # **Enas** kalos politis **ehi** na niazete gia ton sinanthropo tou.
 ‘A good citizen has to care for their fellow humans.’ (intended)

Social Aspect

Eho cannot be used for fully self-motivated preferences. (8) is infelicitous unless relaxing has been assigned by someone like a therapist.

- (8) # Den boro na bgo apopse, **eho** na halaroso.
 ‘I can’t go out tonight, I have to relax.’

Adding a second condition on (a): There is a salient agent X , and $p \in \max(EP(X, w))$.