

# **X-marking, Day 8**

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<https://kvf.me/x>

**Where we are**

# Yesterday

X-marking on a modal can have the following effects:

**exo-X** the modal is evaluated in hypothetical worlds

**endo-X<sub>1</sub>** the modal base is widened

**endo-X<sub>2</sub>** the ordering is refined

**endo-X<sub>3</sub>** the epistemic anchor is shifted

We can't guarantee that there aren't more possibilities

# Today

What effect can X-marking on an attitude verb have?

## The expected exo-X reading

- (1) If Raquel had been at the party, Merle would have thought she had forgiven her.

## An example we got from a reviewer

- (2) Il cucciolo crederebbe che sia sbagliato  
the puppy  $x_{\text{cons}}$ -believe that be.SUBJ in-error  
“The puppy would think it did something wrong.”

Context: advice to a new dog owner not to reprimand the dog for doing its business in the house, because the dog might think that there's something wrong with doing its business in sight of the owner, no matter where.

## **endo-X with attitudes**

Are there endo-X readings of X-marked attitudes, that is actual world attitudes with shifted modal parameters?

*Prolegomena: X-marked want = wish*



## wish

- (3)
- a. I wish I had bought a different car.
  - b. I wish Aline were here now.
  - c. I wish my book sold/would sell well next year.

## **X-want = wish**

- (4)    a.    X-marked conditional: if  $x_{\text{ant}}$ -p,  $x_{\text{cons}}$ -q  
      b.    wishes: I  $x_{\text{cons}}$ -want that  $x_{\text{ant}}$ -p

- (5) Querría                      que fuera                      más    alto  
Want.3.sg.COND    that   be.3.sg.PAST.SUBJ    more    tall  
de    lo   que   es.  
than   it   that   be.3.sg  
'I wish s/he was taller than s/he is.'

## Not exo-X

Laura is the sort of person who only wants things that are attainable. If something is unattainable, that suffices for her to not want it. I happen to know her general tastes in men and know with certainty that Pierce Brosnan falls within that category. As things stand, a date with him is unattainable, hence Laura has no desires about it. Now consider:

- (6)      Laura    querría                      que    Pierce   Brosnan   quedara      con  
             Laura    want.3.sg-x<sub>cons</sub>    that    Pierce   Brosnan   go-out-x<sub>ant</sub>    with  
                 ella.  
                 her

‘Laura wishes that Pierce Brosnan would go out with her.’

# What is going on?

- *want* has a doxastic modal base + preference ordering
- *wish* has a modal base that contains worlds that are believed to be counterfactual

in other words: *wish* has a wider domain than *want*

## endo-X readings

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wider domain:	X-marked modals	X-marked desires
refined ordering:	X-marked strong necessity	??

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Q: are there endo-X attitudes with a refined ordering?

we don't know

# More X-effects

## Prejacent counterfactuality

(7) I would have expected him to be here.

actual expectation, but thwarted



## Sæbø's analysis

- X-marking takes the modal operator and
  - asserts the unmodified modal claim
  - makes salient the bare prejacent
- exhaustification then negates the prejacent

There is very little, if anything, said about

- the temporal anchoring of the X-marked operators
- any effects on the modal parameters

The implication is that modal parameters are not affected.

- (65) ..., obwohl das Land eigentlich reich sein könnte.<sup>51</sup>  
..., although the country actually rich be can.PAST.SUBJ  
'..., although the country could have been rich.'

The form *könnte* thus spells out no less than three elements:

- the mood (X),
- the tense (PRES) and
- the finite modal auxiliary verb's root (KONN).

**Is there another possible analysis?**

Could these be Ferreira-widening cases?

## **X-marking factive attitudes and non-logical *if*-complements**

- (8) I am glad that he is here.
- (9) I would be glad if he were here.

most recently: Longenbaugh 2019: Section 4.4

## Other references:

- Onea 2015
- Schueler 2016
- Sode 2021

## Not an exo-X reading

(10) It would be nice if he were here.

(11) #It's not the case that I want John to be here, but it would be nice if he was here.

discussed by Sode 2021, citing Grosz 2012

- (12) Context: Mary has never held elected office, but she is very popular in Georgia.  
# Her constituents would be glad if she represented Georgia in congress.

due to Longenbaugh 2019



## Conjecture (and to dos)

X-marking here does the same endo-X widening that we've seen with wishes and various modals.

But there are differences:

- factivity is suspended
- complement needs *if* rather than *that*

**A problem**

## Is the default modal base really the doxastic set?

(13) I live in Bolivia because I want to live in Bolivia.

(Iatridou 2000)

If *want* says that the subject prefers among her doxastic alternatives those where the prejacent is true, (13) has no non-prejacent worlds to compare to. So, the domain needs to be wider than the doxastic set.

So, why is the Bolivia sentence not X-marked, since the domain is widened beyond the doxastic set?

## The same problem with factives

(14) I am glad that I live in Bolivia.

This needs to compare Bolivia worlds (which is all that the doxastic set contains) to non-Bolivia worlds. So, why is there no X-marking?

- These attitudes are X-marked only if the prejacent is inconsistent with the doxastic set.
- They are not X-marked if the prejacent is entailed by the doxastic set.

## The default set is doxastic+

- The default modal base is the doxastic set, revised as to include some non-prejacent worlds
- No further widening needed if the doxastic set entails the prejacent, so no X-marking.
- X-marking signals that the doxastic+ set contains no prejacent worlds (that is, it consists only of non-prejacent worlds), so widening is needed

This idea needs to be evaluated against the discussion in

Thomas Grano & Milo Phillips-Brown. 2020. (Counter)factual  
*want* ascriptions and conditional belief. unpublished ms.

<https://philpapers.org/rec/GRACWA-4>.



# **Grand summary**

## **Accomplishments of these two weeks**

- basics of modality, attitudes, and conditionals
- studied X-marking in conditionals, modals, and attitudes
- noticed several other uses of X-marking
- exo-X vs. endo-X
- endo-X: parameter shifting away from defaults
- no grand unified theory as of yet
- lots to do

**AMA**