

# Realizations of Intensionality in Ancient Greek: The Differing Cases of ἄν and μή\*

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## 1 Introduction

**Goal:** Give a semantics for the Classical Greek (CG) modal particle ἄν, including an account for:

- the environments in which ἄν does or does not occur
- the position of ἄν within a clause

The analysis in this paper:

- extends the analysis in Gerö (2000) (see section 2.3 below for details)
- concludes that ἄν is a generic universal modal quantifier— $\forall$  that quantifies over situations

## 2 Background

### 2.1 The Origins of the Modal Particle ἄν

Dunkel (1990, p. 129) gives the following etymologies and functions for three different particles:

	IE 3 forms, 3 functions	Homer 3 forms, all w/2 functions	Dialects of the 1st Millennium (B.C.E.) 1 form, 3 functions
* <i>ke</i>	deictic	limiting	potential (w/optative, main clause)
* <i>kem</i>	emphatic	limiting	generic (w/subjunctive, subord. clause)
* <i>an</i>	irrealis	irrealis	irrealis (w/indicative, main clause)

Table 1: Dunkel (1990, p. 129)'s theory of the particles  $\kappa\epsilon$ ,  $\kappa\epsilon(v)$ , and ἄν

- This paper focuses on the semantics of ἄν in CG.
- But: proto-Greek and PIE origins of ἄν are important...
- ...because the meaning of ἄν as a *generic* universal modal quantifier may be the result of the fact that two functions—an *irrealis* and a generic function—were collapsed into one particle, triggering a reanalysis of the particle's meaning into something that's roughly the combination of the two meanings.

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## 2.2 Greek Conditionals

The nine types of “textbook” CG conditionals are in Table 2.

Type	Antecedent	Consequent
Future Most Vivid	εἰ + future	future
Future More Vivid	εἰάν + subjunctive	future
Future Less Vivid	εἰ + optative	optative + ᾗν
Present General	εἰάν + subjunctive	present
Past General	εἰ + optative	imperfect
Present Simple	εἰ + non-past	non-past
Past Simple	εἰ + past	past
Present Contrafactual	εἰ + imperfect	imperfect + ᾗν
Past Contrafactual	εἰ + aorist	aorist + ᾗν

Table 2: The Nine Types of “Textbook” CG Conditionals

## 2.3 Gerö’s Analysis of ᾗν

Looking at mostly Homeric data, Gerö (2000) points out that ᾗν:

- should be given a unified analysis, contra others (e.g., Basset 1988; Monro 1891)
- appears only in intensional contexts (i.e., in the scope of some intensional operator)
- can perhaps be identified as an intension operator<sup>1</sup> that maps extensions to intensions

## 2.4 Kratzer on Conditionals

General agreement in contemporary linguistics (and philosophy) is that the best analysis of conditionals<sup>2</sup> involves:

- possible worlds semantics (i.e., intensional semantics)
- a (sometimes implicit) modal quantifier (i.e., a quantifier over possible worlds), which takes as arguments:
  - an accessibility relation  $R$  that relates possible worlds to one another
  - a restrictor in the form of an *if*-clause

There are two types of “modal force” possible in conditionals:

- universal:  $\forall$
- existential:  $\exists$

The former corresponds to conditionals like (1a) and the latter to conditionals like (1b):

- (1) a. If John’s car is in the driveway, he must be home.
- b. If we are on Route 183, we might be in Lockhart. (von Stechow and Heim, 2009)

In particular, in (1a) the overt modal<sup>3</sup> ‘must’ with a definition in (2) is responsible for the universal modal force.

$$(2) \quad \llbracket \mathbf{must} \rrbracket^{w,g} = \lambda p_{\langle s,t \rangle} . \lambda q_{\langle s,t \rangle} . \forall w' [p(w') = 1 \rightarrow q(w') = 1]$$

$$(3) \quad \llbracket \mathbf{R}_{epistemic} \rrbracket^{w,g} = \lambda w' . \lambda w'' . \text{the facts compatible with knowledge in } w' \text{ hold in } w''$$

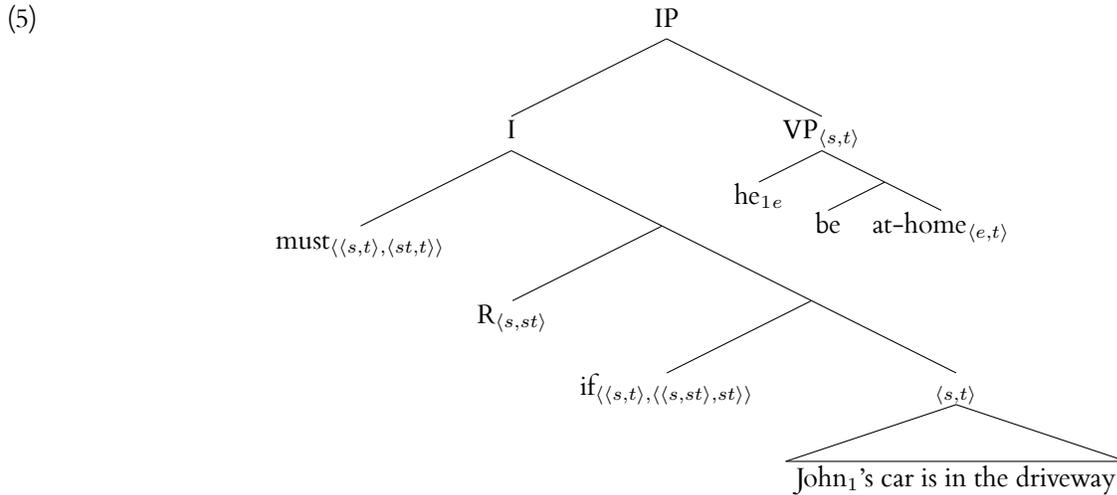
<sup>1</sup>i.e., Montague’s  $\wedge$  operator.

<sup>2</sup>Developed in Lewis (1975); Kratzer (1978, 1981).

<sup>3</sup>Note that modals in conditionals need not be and in fact are often not overt.

$$(4) \quad \llbracket \mathbf{if} \rrbracket^{w,g} = \lambda p_{\langle s,t \rangle} \cdot \lambda R_{\langle s, \langle s,t \rangle \rangle} \cdot \lambda w' \cdot p(w') = R(w)(w') = 1$$

On the Kratzerian analysis, the semantic structure that gets interpreted is (5). Note that in order to derive the surface order of constituents in (1a), we have to assume some sort of post-syntactic process that fronts the *if*-clause.<sup>4</sup>



## 2.5 Situation Semantics

Situation semantics (Kratzer, 2009) was:

- developed first by Jon Barwise and colleagues (Barwise, 1981; Barwise and Perry, 1983)
- formalization of the idea originally attributed to J.L. Austin that utterances are about particular situations (Austin, 1979)

Given the sentence, ‘Claire has the three of clubs’:

We might imagine, for example, that there are two card games going on, one across town from the other: Max is playing cards with Emily and Sophie, and Claire is playing cards with Dana. Suppose someone watching the former game mistakes Emily for Claire, and claims that Claire has the three of clubs. She would be wrong on the Austinian account, even if Claire had the three of clubs across town. (Barwise and Etchemendy, 1987, p. 122)

### Possibilistic Situation Semantics

- extends the idea of evaluating utterances relative to situations to evaluating predicates relative to situations
- all propositions are sets of possible situations
- relates situations with a ‘part of’ relation  $\leq$  such that if  $s \leq s'$ , then  $s + s' = s'$
- the maximal situation that any situation  $s$  is related to by  $\leq$  is the possible world  $w_s$

Below is a good example that shows the usefulness of possibilistic situation semantics:

(6) Everyone is asleep and is being monitored by a research assistant.<sup>5</sup>

<sup>4</sup>The position of the subject ‘he’ before ‘must’ in the surface order is not problematic in the same way since we can just assume that the lower copy of ‘he’ in SpecVP gets interpreted at LF.

<sup>5</sup>For those who like formalism, a possible interpretation of (6) from Kratzer (2009) (see also Heim (1990); Percus (2000); Elbourne (2005)):

$$(1) \quad \lambda s. \forall x. [\text{person}(x)(s') = 1 \wedge s' \leq s] \rightarrow [\text{asleep}(x)(s) \wedge \exists y. [\text{research-assistant}(y)(s) \wedge \text{monitoring}(x)(y)(s)]]]$$

## 2.6 The Present Analysis of ἄν Formalized

Utilizing both the Kratzerian analysis of conditionals and the framework of possibilistic situation semantics, as well as the definition of generic universal quantification in Kratzer (1989), I propose the following formal definition for the CG modal particle ἄν:

$$(7) \quad \llbracket \text{ἄν} \rrbracket^g = \lambda p_{\langle s, t \rangle} . \lambda q_{\langle s, t \rangle} . \lambda s . \forall s' \wedge s \leq s' . [p(s') = 1 \rightarrow \exists s'' [s' \leq s'' \wedge q(s'') = 1]]$$

### What does (7) mean?

- $p$  is an accessibility relation restricted to those worlds that meet the restrictor (antecedent) of the conditional
- $q$  is the matrix clause (consequent) of the conditional
- given (7), the conditional ‘If a stranger comes in to eat, Mary is pleased’ means (given a context in which Mary has just opened a new restaurant and hasn’t had many customers outside of her friends):

For all situations  $s'$  (such that  $s$  is part of  $s'$ ) in which a stranger comes in to eat and in which the circumstances in  $s$  hold in  $s'$ , there is a situation  $s''$  (such that  $s'$  is part of  $s''$ ) in which Mary is pleased.

### Another possible definition for ἄν

- a better way to formulate the definition of ἄν might be to use the generic operator **GEN** within a situation semantics framework (Carlson and Pelletier, 1995, p. 58)
- following the example above, the (rough) paraphrase with a generic operator would be:

For all situations  $s$  in which a stranger comes in to eat and in which  $s$  is not an abnormal situation for Mary with respect to her restaurant, Mary is pleased in  $s$ .

- the **GEN** operator differs from  $\forall$  in that it allows for exceptions
- but the precise semantics of **GEN** are debated (see Carlson and Pelletier, 1995, pp. 1-63)
- for the sake of simplicity and familiarity, I use  $\forall$  here

## 3 Initial Problems with the $\forall$ Analysis of ἄν

There are two basic types of problems with the  $\forall$  analysis of ἄν:

- the position of ἄν in the antecedent of some types of CG conditionals
- the presence and absence of ἄν in the various types of CG conditionals and outside conditionals

### 3.1 The Position of ἄν

#### Why worry about the position of ἄν?

- The analyses of ἄν that give a non-unified analysis of the particle generally divide its functions depending on where the particle appears in a conditional.
- So it’s important to solve the problem of ἄν occurring in the antecedent of some conditionals but in the consequent of others in order to argue for a unified analysis.

ἄν in the consequent of a conditional makes perfect sense on the Kratzerian analysis of conditionals because:

- ἄν, which never occurs first in its clause (Smyth, 1956, §1764), appears to be positioned at the edge of the IP domain, either:
  - occurring last in the clause (linearization on the right)
  - or occurring 2nd in the IP domain (linearization on the left followed by local dislocation)

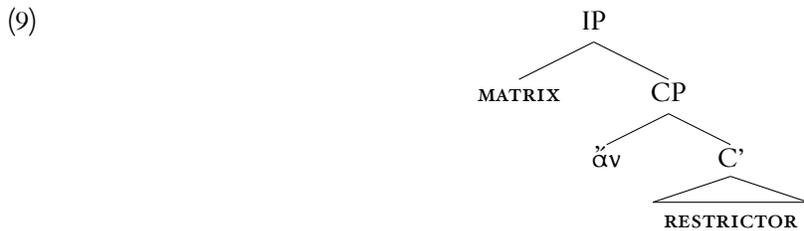
**What is local dislocation?**

- “Local dislocation” (Embick and Noyer, 1999; Noyer, 2001; Embick and Noyer, 2001; Embick, 2003) is a process of:
  - affixation under linear adjacency
  - or essentially an inversion of the order of the first two words<sup>6</sup> in the IP domain
  - the mechanism responsible for 2nd position effects generally

**The Semantic Structure of a Greek Conditional with ἄν in the Consequent**

- (8) εἰ μὲν πρόσθεν ἠπιστάμην, οὐδ’ ἄν συνηκολούθησά σοι  
 if PRT before know.IS.IMPERF not+even AN accompany you.DAT  
 ‘If I had known this before, I would not even have accompanied you.’ (Xen. Anab. 7.7.11)

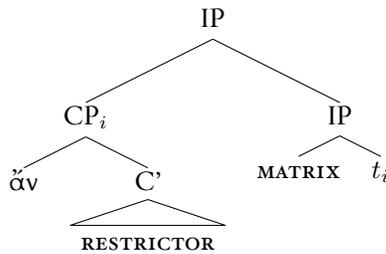
Assuming ἄν with the *if*-clause as its argument is originally adjoined to the matrix IP on the right<sup>7</sup>:



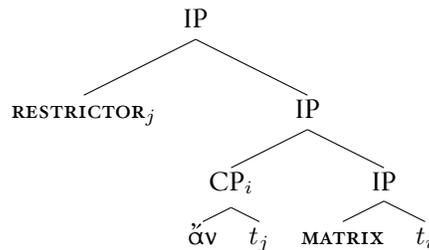
...there are two options:

- fronting the entire ἄν+RESTRICTOR CP followed by fronting the *if*-clause (10a) followed by local dislocation to yield 2nd-position in IP order
- fronting only the RESTRICTOR (10b)

(10) a. i.



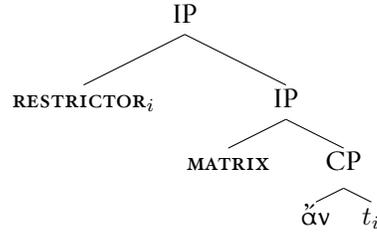
ii.



<sup>6</sup>Although local dislocation can also take place at levels other than the word level.

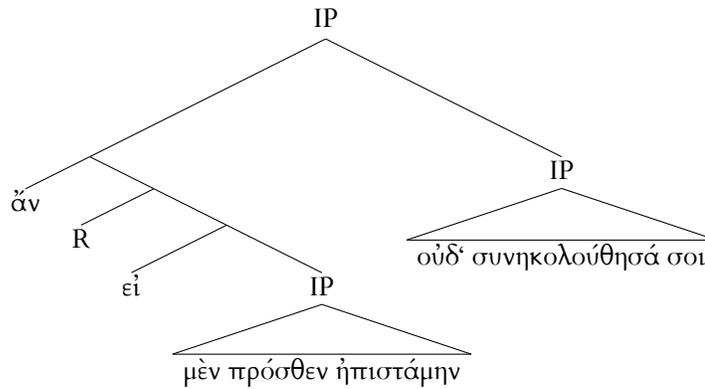
<sup>7</sup>Thanks to Florian Schwarz for suggesting this underlying structure.

b.



**LF for a typical conditional (cf. (5) above)**

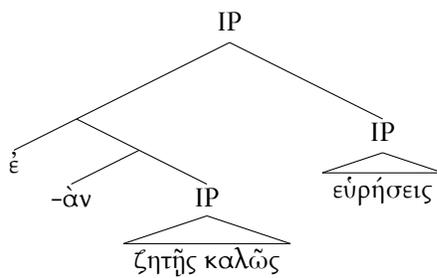
(11)



**The Problem of ἄν in the Antecedent**

(12) ἄλλ' ἔαν ζητῆς καλῶς, εὐρήσεις.  
 but if+AN seek.2s.PRES.SUBJ well, find.2s.FUT  
 'If you seek well, you will find.'<sup>8</sup> (Plat. Gorg. 503d)

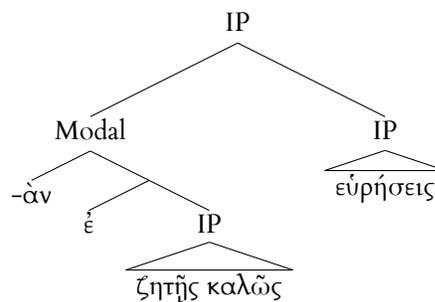
(13)



**Local Dislocation as the Solution (Again!)**

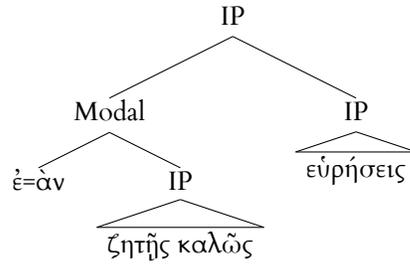
- ἄν is not in the antecedent, even when it appears to be
- local dislocation cliticizes ἄν to the *if* element of the *if*-clause to give the appearance of ἄν in the antecedent

(14) a.



<sup>8</sup>The conjunction ἄλλ' is not included in the tree to save space; since it occurs outside the CP domain of the sentence, it is irrelevant.

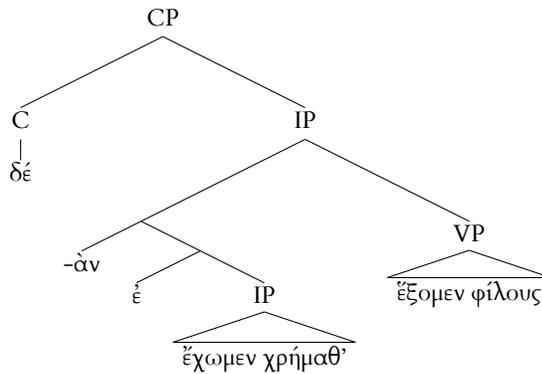
b.



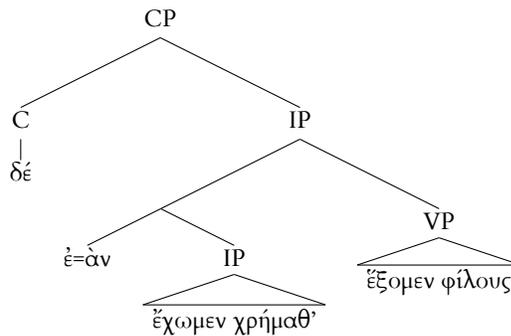
- cyclic local dislocation can account for sentential particles such as δέ to the right of ἐάν
- but there are some complications with the position of ἄν in a few non-Attic dialects (see the Appendix for more information)

(15) ἐάν δ' ἔχωμεν χρήμαθ', ἔξομεν φίλους.  
 if+AN but have.IP.SUBJ money, have.IP.FUT friends  
 'But if we have money, we will have friends.' (Men. Sent. 165)

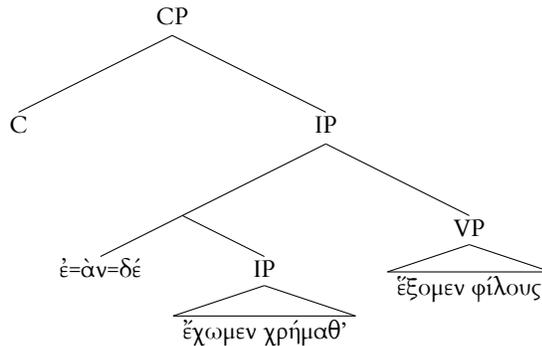
(16) a.



b.



c.



### 3.2 The Absence ἄν in Certain Types of Conditionals

#### Why doesn't ἄν occur in...

- future most vivid
- past general
- present and past simple

#### ...conditionals?

The absence of ἄν in these types of conditionals is where the distinction between possible worlds semantics and possibilistic situation semantics comes into play. The argument in this paper is that environments in CG where ἄν occurs involve:

- quantification over possible situations—that is, over *parts* of possible worlds
- in particular, *generic universal* (as opposed to *accidental universal*) quantification over possible situations (Kratzer, 1989)

Kadmon (1987):

- applies the distinction between generic and accidental universal quantification laid out in Kratzer (1989) to non-counterfactual conditionals
- observes that the most prominent reading of (17a) is as a single-case conditional, while the most prominent reading of (17b) is multi-case

- (17) a. If a man walked in and he decided to stay, Sally must be pleased<sup>9</sup>.  
 b. If a man walks in and sits down, Sally is pleased.

Kadmon then argues that:

- multi-case conditionals involve generic universal quantification over possible situations
- single-case conditionals involve accidental universal quantification, which reduces to one situation per world

#### Does the single- vs. multi-case conditional distinction adequately explain the presence or absence of ἄν in Greek?

- There definitely seems to be a distinction between the future most vivid conditionals (18a) without ἄν and the other future conditionals (18b), where the former apply in a single case, and the latter are generic:

- (18) a. βαρεῖα δ' (κήρ), εἰ τέκνον δαίξω  
 heavy but fate.NOM if child.ACC slay.IS.FUT  
 'Hard is (my fate), if I must slay (my) child.' (Aesch. Ag. 208)
- b. ἀλλ' ἐὰν ζητῆς καλῶς, εὕρήσεις.  
 but if+AN seek.2S.PRES.SUBJ well, find.2S.FUT  
 'If you seek well, you will find.' (Plat. Gorg. 503d)

- In the past conditionals, there is actually a three-way distinction between:
  1. past simple conditionals containing only indicative verbs (19a)
  2. textbook "past general" conditionals containing the optative in the antecedent but no ἄν (19b)
  3. true generic past conditionals containing ἄν (19c)

<sup>9</sup>Slightly adapted from Kadmon (1987) due to the fact that the original 'If a man walked in and he decided to stay, Sally will be pleased' is awkward in standard American English. Thanks to Tony Kroch (p.c.) for pointing this out.

**Examples of the Three Types of Past Conditionals**

- (19) a. ἀλλ' εἰ μὲν (Ἀσκληπιὸς) θεοῦ ἦν, οὐκ ἦν, φήσομεν, αἰσχροκερδής: εἰ δ'  
but if PRT (Asclepius.NOM) god.GEN was not was say.IP.FUT covetous if PRT  
αἰσχροκερδής, οὐκ ἦν θεοῦ.  
covetous, not was god.GEN  
'But if Asclepius was the son of a god, he was not, we shall say, covetous: and if he was covetous, he was not the son of a god.' (Plat. Rep. 408c)
- b. εἴ ποῦ τι ὀρώη βρωτόν, διεδίδου  
if anywhere any sees.3S.OPT food.ACC, give-out.3S.IMPERF  
'If he saw any food anywhere, he gave (it) out.' (Xen. Anab. 4.5.8)
- c. εἰ δέ τις αὐτῷ περί του ἀντιλέγοι... ἐπὶ τὴν ὑπόθεσιν ἐπανῆγεν ἂν πάντα  
if but someone him about something oppose.3S.OPT on the proposal lead.3S.IMPERF AN whole  
τὸν λόγον  
the discussion  
'If anyone opposed him on any matter...he would always bring the entire discussion back to the proposal.' (Xen. Mem. 4.6.13)

- Note in particular that in (19b), the multiple case reading that results is over actual sub-situations of the topic situation determined by the context of the sentence, while in (19c), the meaning is that any situation in the past that met the requirement of the restrictor would also have been a situation in which the matrix clause was true.
- In other words, (19b) is concerned with a set of actual sub-situations of the topic situation *s*, while (19c) is concerned with all of the situations that *s* is part of and that have a certain property—namely, the property expressed by the restrictive clause.
- In the present simple (20a) vs. general (20b) conditionals, there is a similar pattern as with the past simple and “general” vs. true generic conditionals:

- (20) a. εἴπερ γε Δαρείου καὶ Παρυσάτιδος ἐστὶ παῖς... οὐκ ἀμαχεῖ ταῦτ'  
if indeed Darius.GEN and Parysatis.GEN is son.NOM not without-resistance these.ACC  
ἐγὼ λήψομαι  
I.NOM take.IS.FUT  
'If indeed he is the son of Darius and Parysatis, I will not take these things without resistance.'  
(Xen. Anab. 1.7.9)
- b. Καὶ ἐὰν ἴσοις ἴσα προστεθῆ, τὰ ὅλα ἐστὶν ἴσα.  
and if+AN equals.DAT equals.NOM add.3S.SUBJ.PASS, the.NOM wholes.NOM are equal  
'And if equals are added to equals, the wholes are equal.' (Euc. Ax. 2)

**The Presence of ἂν in Counterfactual Conditionals**

- (21) a. ταῦτα δὲ οὐκ ἂν ἐδύναντο ποιεῖν, εἰ μὴ καὶ διαίτη μετρία ἐχρῶντο.  
these.ACC but not AN can.3P.IMPERF do.INF.ACT if not also diet.DAT measured.DAT use.3P.IMPERF  
'But they would not be able to do these things, if they were not also following a temperate diet.' (Xen. Cyrop. 1.2.16)
- b. οὐκ ἂν ἐποίησεν Ἀγασίας ταῦτα, εἰ μὴ ἐγὼ αὐτὸν ἐκέλευσα.  
not AN do.3S.AOR Agasias these.ACC if not I him order.IS.AOR  
'Agasias would not have done these things, if I had not ordered him (to).'

- seems problematic at first, given that “counterfactuals can only be true in situations that are worlds” (Kratzer, 1989, p. 627)
- but the definition in (7) can still be applied

- quantification over situations  $s'$  such that  $s \leq s'$  is vacuous
- because the only situation that a maximal situation  $s$  (a world) is part of is itself
- multi-case conditionals and counterfactuals share the fact that they are both concerned with situations that have a certain property (or properties)

### Counterfactuals without $\check{\alpha}\nu$

- (22) *καίτοι εἰ ἐβούλετο δίκαιος εἶναι περὶ τοὺς παῖδας, ἐξῆν αὐτῷ κατὰ τοὺς νόμους... μισθῶσαι τὸν οἶκον.*  
 but if wish.3S.IMPERF just be.INF with-respect-to the children, was-possible.3S.IMPERF him.DAT  
 according-to the traditions rent-out.INF the.ACC house.ACC  
 ‘But if he had wanted to be just with respect to the children, it was possible, according to tradition... for him to rent out the house.’ (Lys. 32.22–23)

This example:

- supports the definition for  $\check{\alpha}\nu$  in (7) because  $\check{\alpha}\nu$  is absent when a different modal is present
- shows that  $\check{\alpha}\nu$  includes universal force<sup>10</sup> since the modal here (when  $\check{\alpha}\nu$  is absent) has existential force

### 3.3 The Presence of $\check{\alpha}\nu$ outside of Conditionals

In this section, the presence of  $\check{\alpha}\nu$  in two environments outside of conditionals is addressed:

- potential optative
- iterated indicative

In both cases, the argument presented here is that:

- $\check{\alpha}\nu$  means exactly the same thing in these cases
- the only difference between these cases and conditionals is that the antecedents here are implicit and provided by the context
- the apparent variable modal force in potential optatives is explained by differences in the speaker’s attitude towards the likelihood of the events in the implicit restrictor (antecedent) coming to pass

#### Examples of Potential Optatives with Implicit Restrictors

- (23) a. *ἅπαντες ἂν ὁμολογήσειαν*  
 all.NOM.P AN agree.3P.OPT  
 ‘All would agree.’ (Isoc. 11.5) (Implicit Restrictor: ‘If they considered the matter fully...’)
- b. *ἀλλὰ ταῦτα μὲν καὶ φθόνῳ ἂν εἴποιεν*  
 but these.ACC PRT even envy.DAT AN say.3P.OPT  
 ‘But these things they may have said even out of envy.’ (Hdt. 9.71) (Implicit Restrictor: ‘If they were very jealous...’)

<sup>10</sup>Or, as mentioned above, perhaps a **GEN** operator.

### Comparison of True Past Generic Conditionals with Iterated Indicatives

- (24) διηρώτων ἂν αὐτοὺς τί λέγοιεν  
ask.IS.IMPERF AN them what say.3P.OPT  
'I used to ask them what (the poems) meant...'  
(Plato Apol. 22b)
- (25) καὶ εἴ τις αὐτῷ δοκοίη τῶν πρὸς τοῦτο τεταγμένων βλακεύειν,  
and if someone him.DAT seem.3S.OPT the.GEN to this assigned.PTCP.L.GEN slack-off.INF,  
ἐκλεγόμενος τὸν ἐπιτήδειον ἔπαισεν ἄν  
choosing the.ACC deserved.ACC hit.3S.AOR AN  
'And if someone of the ones assigned to this seemed to him to be slacking off, choosing the one deserving  
he would hit him.'  
(Xen. Anab. 2.3.11)

## 4 CG Free-Choice Relatives with ἄν

Additional support for the generic universal modal quantifier analysis of ἄν comes from its appearance in free-choice relatives in CG:

- (26) a. τῷ ἀνδρὶ ὃν ἄν ἐλησθε πείσομαι  
the.DAT man.DAT whom AN choose.2P.SUBJ obey.IS.FUT  
'I will obey whichever man you may choose.'  
(Xen. Anab. 1.3.15)
- b. ὅποι ἄν ἔλθω, λέγοντος ἐμοῦ ἀκροάσονται οἱ νέοι  
where AN go.IS.AOR.SUBJ speak.PTCP.L.GEN me.GEN listen.3P.FUT the young  
'Wherever I go, the young men will listen to me speaking.'  
(Plat. Apol. 37d)

Note that free-choice free relatives have been analyzed as involving genericity by at least Dayal (1997) and Caponigro (2003).

- What shows even more convincingly that ἄν in CG free-choice relatives and ἄν in CG conditionals behave the same is the fact that there is a parallel relative lack of uses of ἄν when the matrix clause of the construction is in a past tense.
- Dayal (1997) argues that the specific versus free-choice readings of free relatives result not from a fundamental ambiguity in the interpretation of free relatives, but from the ways in which *wh*- words combine with different combinations of tense and aspect.
- Compare the most salient interpretations of the following English free relatives:

- (27) a. [<sub>FR</sub> Whichever movie plays at the Avon ] makes a lot of money. (Caponigro, 2003, 9b.)  
b. [<sub>FR</sub> Whichever movie played at the Avon ] made a lot of money.

In CG, this difference between free-choice relatives in the non-past and past is also reflected in the presence or absence of ἄν:

- (28) a. ἔπραττεν ἃ δόξειεν αὐτῷ  
do.3S.IMPERF what seem-best.3S.OPT him.DAT  
'He (always) did whatever he pleased.'  
(Dem. 18.235)
- b. ὅπη μέλλοι ἀριστοποιεῖσθαι τὸ στράτευμα ἢ δειπνοποιεῖσθαι, ἐπανήγαγεν  
whenever about-to.3S.OPT have-breakfast.INF the expedition or have-dinner.INF draw-back.3S.AOR  
ἄν τὸ κέρασ...  
AN the wing...  
'Whenever the expedition was about to have breakfast or dinner, he would draw back the wing...'  
(Xen. Hell. 6.2.28)

## 5 A Different Case: μή as an Intensional Marker

### 5.1 Background

With respect to the two reflexes of negation in CG—οὐ/οὐκ/οὐχ and μή—Gerö (2001) argues that:

- μή can be analyzed in a fashion parallel to ἄν/κε(v)
- precisely in that, like ἄν/κε(v), it only occurs in intensional contexts (i.e., within the scope of some intensional operator or other)

Since this paper puts forward a view according to which:

- ἄν is not an intensional *marker*
- but rather an intensional *operator*

...this means that:

- the cases are *not* parallel
- raises the question of whether the analysis of μή can or should be refined

### 5.2 Analysis of μή

- The behavior of μή under propositional attitude verbs leads to a refinement of the analysis of μή.
- Sometimes μή appears within the scope of these intensional operators (29a), sometimes it doesn't (29b).

- (29) a. τὴν Κέρκυραν ἐβούλοντο μή προέσθαι  
 the Corcyra want.3P.IMPERF.MID not give-up.AOR.INF.MID  
 'They didn't want to give up Corcyra.' (Thuc. 1.44)
- b. ...λέγοντες οὐκ εἶναι αὐτόνομοι  
 ...saying not be.PRES.INF independent  
 '...saying that they were not independent' (Thuc. 1.67)

#### Two Components in the Analysis of μή

- μή is subject to anti-licensing: it is only barred from certain contexts, not required in any
- the relevant contexts are veridical contexts
  - veridical =  $Op(p) \rightarrow p$  (an operator that entails the truth of its argument: e.g., the English verb 'manage') (Giannakidou, 1998, p. 106–108)
  - μή is barred from veridical contexts
  - but μή is not required in non-veridical contexts

## 6 Conclusion

### Two Take-Home Messages

1. ἄν is a generic universal modal quantifier that quantifies over possible situations
2. μή is anti-licensed by veridical contexts

## 7 Appendix

### Dialect Evidence Showing Base Position of $\check{\nu}$ in Antecedent

- (30)  $\kappa\acute{\alpha}\check{\iota}$   $\tau\acute{\iota}$   $\kappa'$   $\check{\alpha}\lambda\lambda'$   $\check{\alpha}\tau\alpha\varsigma$   $\check{\epsilon}\acute{\iota}$ ,  $\tau\acute{o}$   $\acute{\alpha}\pi\lambda\acute{o}\omicron\nu\acute{o}\nu$   $\acute{\epsilon}\pi\iota\kappa\alpha\tau\alpha\sigma\tau\alpha\sigma\acute{\epsilon}\iota$ ...  
 and+if any AN other damage be.3s.PRES, the simple pay.3s.FUT  
 ‘...and if there is any other damage, he shall pay the simple value in addition...’ (Law Code of Gortyn, Col. IX ll. 14–15) (Willets, 1967, p. 47)
- (31)  $\epsilon\acute{\iota}$   $\delta'$   $\check{\alpha}\nu$   $\iota\nu\delta\iota\kappa\acute{\alpha}\zeta\eta\tau\omicron\iota$ ,  $\acute{\alpha}\pi\upsilon\tau\epsilon\iota\sigma\acute{\alpha}\tau\omega$   $\tau\acute{o}$   $\chi\rho\acute{\epsilon}\omicron\varsigma$   $\delta\iota\pi\lambda\acute{\alpha}\sigma\iota\omicron\nu$ ...  
 if but AN bring-suit.3s.SUBJ.PASS, pay.3s.IMPER the value double  
 ‘...and if suit is brought against him, he shall pay double the amount...’ (Buck, 1955, no. 19, pp. 202–3)
- not enough evidence in these dialects to know if  $\check{\nu}/\kappa\epsilon(\nu)/\kappa\alpha$  is behaving in the same way that  $\check{\alpha}\nu$  does in CG
    - in Elean,  $\check{\alpha}\nu$  appears with optatives to form prescriptions (Buck, 1955, §175)
  - in the case of West Greek  $\kappa\alpha$ , the fact that  $\kappa\alpha$  may have had a different origin than the other particles (Dunkel, 1990) may be significant
  - a possible way to account for these cases is to assume covert movement of  $\check{\alpha}\nu$  to SpecCP of the *if*-clause at LF<sup>11</sup>

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<sup>11</sup>Thanks to Tony Kroch for suggesting this possible solution.

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