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## ὄν interesting particle

The Distribution of the Particle ὄν in IV Century BCE Attic Greek

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A Sara,  
mio porto,  
mia nave,  
mio vento.



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# Introduction

This work deals with the syntactic distribution of the so-called modal particle  $\check{\nu}$  in Ancient Greek (AG), attempting to understand its functions and its behaviours, particularly in subjunctive subordinate clauses.

Chapter 1 goes over a portion of the traditional studies which have dealt with this element outside of the generative framework, from grammars to monographs, about its definition, interaction with moods, use in subordinate clauses and other phenomena

Chapter 2 displays the corpus of texts selected for the analysis and the data gathered. The variety of AG taken into account is the Attic dialect spoken in the Athens of IV century BCE and the literary works are Plato's Symposium and Xenophon's Anabasis. The data gathered from these works has been collected and organised in a table where a peculiar distribution seemed to emerge: in subjunctive subordinate clauses  $\check{\nu}$  is always located right after the complementiser; therefore the main research goal was to explain this distribution.

Chapter 3 critically revises previous generative studies about the prosody, the syntax and the semantics of  $\check{\nu}$ : the semantic account has been adjusted and adopted, while other insights have been not entirely confirmed by the data, therefore have been rediscussed.

Chapter 4 contains the core analysis of this work: first it attempts to locate the different available positions of  $\check{\nu}$  in the structure, then it links the positions to some phenomena involving agreement with the mood, finally it tackles the main research question, identifying the structure of central adverbial clauses as responsible for the distribution of  $\check{\nu}$  in subjunctive subordinate clauses.

This work's closing bits are the conclusions, the bibliography and the acknowledgements.





# Annotations

The whole data gathered for this work can be consulted on the CD attached to the back of the cover: it is organized in a table built in a Microsoft Excel file.

The pronunciation of Greek words in the text can be found in the footnotes at their first appearance. The literary examples are transliterated, glossed and translated whenever needed. The glosses follow the Leipzig Glossing Rules; it must be pointed out that:

- for nouns, if nothing is specified, the number is singular; the gender is specified only if the noun may appear with different values; the case is always specified;
- for adjectives, pronouns and articles, number, gender and case are always specified;
- for verbs, the default values are present for time, indicative for mood, active for voice; all other cases are specified; person and number are always specified.

The following is a list of abbreviations used in the glosses.

ACC	accusative
AOR	aorist
COMP	complementiser
DAT	dative
DISC-MARK	discourse marker
F	feminine
FOC-MARK	focus marker
FUT	future
GEN	genitive
IMP	imperative
IMPF	imperfect
INDEF	indefinite pronoun
INF	infinitive
M	masculine
MID	middle
N	neuter

NEG	negation
NOM	nominative
OPT	optative
PF	perfect
PL	plural
PPF	pluperfect
PSV	passive
PTC	particle
PTCP	participle
REL	relative pronoun
SG	singular
SUBJ	subjunctive
TOP-MARK	topic marker
1	first person
2	second person
3	third person

# Chapter 1

## Status Quaestionis

Any linguistic discussion over some topic of AG can not omit the long tradition of studies that have succeeded over the centuries: it is sufficient to notice that one of the first work concerning linguistics was Plato's dialogue "Cratylus", composed in the IV century BCE, showing the awareness of Greeks themselves about the importance of language. For a long time scholars have researched and analysed AG, reaching a deep understanding of the language, much before generative theories began to spread: this is why these studies can not be ignored, but must serve as a foundation over which one has to develop her or his ideas, even if she or he uses a different approach than the traditional one.

Among the vast multitude of studies that can be found about AG, the following is a selection of monographs and grammars that for some reason deserve to be mentioned and looked into, focusing on the main topic of this work, that is the particle  $\check{\nu}$ <sup>1</sup> and its interaction with moods.

- *Syntax of the Moods and Tenses of the Greek Verb* by William W. Goodwin (1889).  
This is already an exhaustive and complete work on the subject not to be ignored by any following scholar. There are several parts that are to be taken into account, such as the general view of the moods, the chapter dedicated specifically to the particle  $\check{\nu}$  and its distribution with the moods and the various uses of the moods in independent and dependent clauses, as well as two paragraphs in the appendix, namely the relation between the optative and the subjunctive and some peculiarities found in Xenophon. Goodwin's contribution to successive analyses is huge: almost every scenario in which  $\check{\nu}$  can be found is here displayed and explained.
- *First Greek Grammar* by William G. Rutherford (1912).  
This work, by admission of its own author, only drives great main lines through Greek

<sup>1</sup>Pronunciation: [ˈan].

Syntax<sup>2</sup>. Therefore, it is not an attempt to completeness so much as a first instrument to point out the principal questions and insights. After dealing with the article, the pronouns and the cases, he focuses on the verb, precisely on its voices, tenses and moods, both in independent and dependent propositions; the last chapter is dedicated to particles.

- *Greek Grammar* by Herbert W. Smyth (1920).

This grammar is fully exhaustive about most of the linguistic aspects of AG, from writing to phonology, from morphology to syntax. The particle ἄν is protagonist in different sections: those which talk about verbal moods and those which talk about sentences and subordinates. It is treated differently from other particles, and does not appear in the long chapter that lists and describes these elements.

- *The Greek Particles* by John D. Denniston (1934).

This monograph deals with the definition of the category of particle, their uses and their features, then proceeds to list every particle and to explain their meanings and peculiarities.

- *Griechische Grammatik* by Eduard Schwyzer (1939).

This grammar is similar to Smyth's regarding insights and organisation: it deals exhaustively with phonology, morphology and syntax, while providing numerous examples and exceptions. In his work, though, less space is dedicated to the analysis of ἄν and its uses than in Smyth's.

- *New Comparative Grammar of Greek and Latin* by Andrew L. Sihler (1995).

The analysis of this work focuses on the diachronic layer; therefore, the particle ἄν is not discussed, because of its unclear and debated etymology. It is interesting though to read what he writes about the evolution of moods, which of course are going to be a crucial element in this work.

The following section is organized as follows: in §1.1 are collected the attempts at a definition of ἄν and, more generally, of the category of particle; in §1.2 are analysed its interactions with the different moods; in §1.3 are discussed the possible uses in subordinate clauses of this particle; lastly in §1.4 are observed the distribution of ἄν and other interesting phenomena.

<sup>2</sup>Rutherford (1912, p. v)

## 1.1 Definition of ᾗν

Though most of the scholars define ᾗν as a particle, it is difficult to provide a satisfactory definition for this category, for it is characterized both by syntactic and prosodic features. Goodwin glosses over this question entirely, while Smyth simply describes it as a label that includes conjunctions and sentence adverbs, many of which are reduced to clitics and others fluctuate, sometimes functioning as adverbs and sometimes as conjunctions<sup>3</sup>. Schwyzer only states that this problem has been encountered by all precedent grammars, some of which define particles as adverbs, some as conjunctions, some others as the antecedent of pronouns<sup>4</sup>.

Denniston, of course, in his monograph about particles, cannot exempt himself from a definition. He states that a particle is a word that expresses a mode of thought, considered either in isolation or in relation to another thought, or a mood of emotion. Examples of the first case are γε, δή, μήν<sup>5</sup>, which primarily carry emphasis (affirmative, intensive, determinative, limitative). These particles are also used to express a mood of emotion, along with ᾗρα or τοι<sup>6</sup>, and in this case they closely resemble adverbs (like *certe* or *profecto* for latin). When their function is to establish a relationship between two ideas, they can be found in parataxis as well as in hypotaxis, introducing the apodosis; their use may also be resumptive, to recollect a thread of a thought<sup>7</sup>.

The issue with Denniston's work is that after this introduction he lists in alphabetical order and analyses every particle he intends to, though completely skipping ᾗν in the process. This is similar to what happens in Rutherford's grammar: though his last chapter is dedicated to particles, ᾗν is not taken in consideration, probably due to two main reasons. The first can be deduced by the first paragraph of the chapter, in which Rutherford states that he will treat under this label negative adverbs, interrogative adverbs and those words used to coordinate prepositions and commonly named conjunctions<sup>8</sup>: ᾗν lies outside of these bounds, since it is usually defined as a modal particle (or adverb, as Goodwin did and Rutherford would probably call it). The second reason is that the distribution of ᾗν is closely related to moods and subordinates, so that it had been already taken into account in the previous chapters: the best way to discuss ᾗν and its peculiarities is indeed observing its behaviours in those environments, not abstracting it from the sentences, as it will be done in §1.2 and §1.3.

<sup>3</sup>Smyth (1920, p. 631)

<sup>4</sup>Schwyzler (1939, v. II p. 553-554)

<sup>5</sup>Pronunciation: [ge], [ˈdɛ:], [ˈmɛ:n].

<sup>6</sup>Pronunciation: [ˈa.ra], [toj].

<sup>7</sup>Denniston (1934, pp. xxxvii-xlii)

<sup>8</sup>Rutherford (1912, p. 155)

## 1.2 Interaction with moods

The moods in AG are indicative, subjunctive, optative, imperative, infinitive and participle, and they show the manner in which the assertion of the verb is made<sup>9</sup>. Those who can enter a relationship with ἄν are the indicative, the subjunctive and the optative:

- the indicative makes a simple, absolute assertion or asks a question related to this assertion; the past tenses may also express a supposition that some statement were or had been true while in reality it is not or it was not<sup>10</sup>;

- (1) a. γράφει  
grápheí  
he.is.writing
- b. γράφει;  
grápheí?  
is.he.writing?
- c. εἰ ἔγραψα  
ei= égrapsa  
if I.had.written

- the subjunctive in its simple and probably primitive use expresses futurity; in conditional clauses it expresses a future or a general (indefinite in its time) supposition<sup>11</sup>;

- (2) a. καί ποτέ τις εἴπησιν[...] *Il. VI, 459*  
káí =poté =tis éipēsín  
and some.time INDEF.NOM say.AOR.SUBJ.3SG  
'And some time someone will say[...]'
- b. ἐάν τις κλέψῃ, κολάζεται.  
e(i)=án =tis klépsē kolázetai  
if.PTC INDEF.NOM steal.AOR.SUBJ.3SG punish.3SG.PSV  
'If one steals, he is punished.'

The Proto-Indoeuropean subjunctive probably refers to a future event anticipated with some reservation by the speaker; in Greek the modal flavour appears to have increased, thereby encroaching on the function of the optative, which eventually disappeared. At

<sup>9</sup>Goodwin (1889, p. 1)

<sup>10</sup>Goodwin (1889, pp. 1-2)

<sup>11</sup>Goodwin (1889, pp. 2-3)

all times the subjunctive is a formation that appears in every stem, apart from the future<sup>12</sup>.

- the optative is a less distinct and direct form of expression than the other moods in constructions in which those moods are used, especially in dependent sentences in which it expresses a wish, an exhortation or it has a potential sense<sup>13</sup>.

- (3) a. ἴοιμεν  
 íoimen  
 may.we.go
- b. ἔλοιτο ἄν  
 éloito =án  
 he.might.take

The Proto-Indoeuropean optative was not a mood correlative with the indicative and derived with inflection, but was itself an eventive stem per se, formed directly from the root; only in the evolution of the languages it became freely derivable. In Greek, the use of secondary endings without the augment is remarkable: being a conditional or irrealis form, it was neither real present (therefore without primary endings) nor real past (therefore without augment)<sup>14</sup>.

If an attempt is to be made at defining a unitary general meaning for both the subjunctive and the optative, they will be defined respectively as the mood of will and the mood of wish; further more, a potential meaning arose in both independently, marked with use of ἄν. This though is but a simplistic view and it does not coincide with their original meaning<sup>15</sup>.

The particle ἄν (and its epic and Doric counterparts χέ(ν) and χά<sup>16</sup>) appears early in the old tradition in correlation with moods<sup>17</sup>. It is described as a particle which limits the meaning of the moods, precisely the force of the verb to particular circumstances or conditions<sup>18</sup>. It has two distinguishable uses:

- it denotes that the action of the verb it is adjoined to has a potential force, which means that it is dependent upon some expressed or implied conditions; this is the case with

<sup>12</sup>Sihler (1995, pp. 592-593)

<sup>13</sup>Goodwin (1889, p. 4)

<sup>14</sup>Sihler (1995, p. 595)

<sup>15</sup>For a full detailed discussion see Goodwin (1889, pp. 371-389).

<sup>16</sup>Pronunciation: [ˈke(n)], [ˈka].

<sup>17</sup>Schwyzler (1939, v. II p. 306)

<sup>18</sup>Smyth (1920, pp. 398-399)

the secondary tenses of the indicative and with the optative<sup>19</sup> (or with the infinitive and participle when they stand in the place of the first two<sup>20</sup>); the secondary tenses of the indicative appear to be originally merely a past form of the potential optative<sup>21</sup>;

- (4) a. ῥῆλθεν ἄν  
 êlthen =án  
 he.would.have.gone  
 b. ἔλθοι ἄν  
 élthoi =án  
 he.would.go

- it is attached regularly to conditional, temporal and relative words and sometimes to particles that introduce final clauses when any of these is followed by the subjunctive; in this cases it is closely connected to these words and particles that often coalesce with it<sup>22</sup>.

- (5) ἐάν τις εἴπῃ  
 e(i)=án tis                    éípē  
 if.AN    INDEF.NOM say.AOR.SUBJ.3SG  
 ‘If someone says’

While the second use will be looked further into in the section about subordinates, the first is frequently found also in independent sentences. The following are the possible interpretation for this potential force:

- *potential optative*: it states a future possibility, propriety or likelihood as an opinion of the speaker; to stress the idea of possibility or necessity, modal verbs are often involved, like δύναμαι, δεῖ<sup>23</sup> etc. It is not necessary for this optative to be limited by any definite condition: it can be used in the apodosis of conditionals, but only of those with a less vivid protasis. This optative can also appear in ironic statements, wishes, exhortations and questions<sup>24</sup>.

<sup>19</sup>Goodwin (1889, p. 64), Rutherford (1912, pp. 92-93) and Smyth (1920, pp. 398-399).

<sup>20</sup>Goodwin (1889, pp. 67, 70)

<sup>21</sup>Goodwin (1889, p. 81). As a matter of fact, the optative never takes the augment in its formation, meaning that it can never express real past, as already pointed out before and in Sihler (1995, p. 595).

<sup>22</sup>Goodwin (1889, p. 64) and Smyth (1920, pp. 398-399). E.g. εἰ + ἄν > ἐάν [1e.'an], ὅτε + ἄν > ὅταν [ʰo.tan], ἐπειδή + ἄν > ἐπειδάν [1e.pej.'dan].

<sup>23</sup>Pronunciation: [ʰ'dy.na.maj], [ʰ'dej].

<sup>24</sup>Goodwin (1889, pp. 77-80) and Smyth (1920, pp. 407-409).



- *past potential indicative* (usually the aorist, less commonly the imperfect): it denotes past possibility, probability or necessity; it is frequent with the indefinite pronoun and the ideal second person<sup>25</sup>.
- *unreal indicative* (historical tenses): denoting unreality, it is mainly used in the apodosis of unreal conditionals. It is related to potentiality being a non-fulfilled past possibility<sup>26</sup>.
- *iterative indicative* (historical tenses): it expresses repeated or customary past actions. It is related to potentiality denoting what could or would happen under certain past conditions<sup>27</sup>.

### 1.3 ἄν in subordinate clauses

As seen in §1.2 ἄν has different uses in relation to the mood of the clause. The following is a list of the main types of subordinate clauses that may select this particle.

#### Object clauses

After verbs meaning «to strive», «to plan», «to care for», «to effect»<sup>28</sup>, object clauses with ὅπως in Attic Greek (and Herodotus) and with ὡς only in Xenophon<sup>29</sup> can sometimes take ἄν with the subjunctive.

- (6) a. διαμηχανήσομαι θ' ὅπως  
 ἄν ιστίον σαπρὸν λάβῃς. *Aristoph. Eq. 917-918*
- diamēkhanēsomai =th(e) hópōs =án histíon saprón  
 contrive.FUT.1SG.MID and COMP AN mast.ACC rotten.ACC.N.SG  
 lábēs  
 get.AOR.SUBJ.2SG  
 'I will contrive that you get a rotten mast.'
- b. ἐπιμελεῖσθαι ὡς ἂν πράχθῃ. *Xen. Hipp. IX, 2*
- epimelēisthai hōs= án prákthē  
 take.care.INF.MID COMP AN do.AOR.PSV.SUBJ.3SG(=PL)  
 'To take care that they will be done.'

<sup>25</sup>Goodwin (1889, pp. 81-85) and Smyth (1920, p. 402).

<sup>26</sup>Goodwin (1889, p. 85) and Smyth (1920, pp. 402-403).

<sup>27</sup>Smyth (1920, p. 403). An example for the last use is: διερώτων ἄν, I used to ask (*Plat. Apol. 22b*).

<sup>28</sup>Goodwin (1889, p. 122)

<sup>29</sup>Pronunciation: [N'ho.pɔ:s], [hɔ:s]. In this case he is even more peculiar than with final clauses, showing again how he strongly feels the original relative and interrogative force of ὡς. See Goodwin (1889, pp. 125-126) and particularly for Xenophon Goodwin (1889, pp. 402-403).

### Causal clauses

Causal clauses can present ἄν with the unreal indicative or the potential optative; this use is not due to the clause type so much as to the proper force of the sentence<sup>30</sup>.

- (7) ἐπεὶ διὰ γ' ὑμᾶς αὐτοὺς πάλαι ἄν ἀπολώλειτε. *Dem. Cor. 49*

epéi diá =g(e) hýmâs autús pálai =án apolōleite  
 since because.of PTC you.ACC.PL self.ACC.M.PL long.ago AN die.PPF.2SG

‘Since you would long ago have died had it been for you.’

### Final clauses

The final particles that originated as relative pronouns, like ὡς, ὅπως and ὅφρα<sup>31</sup>, sometimes have ἄν with the subjunctive, since their original capacity as conditional relatives would allow it<sup>32</sup>: probably the combination with ἄν (or κέ) gave the clause a combined final and conditional force, with the latter gradually weakening; on the contrary, the proper final conjunction ἵνα (as well as its negative counterpart μή<sup>33</sup>) never takes ἄν, since the purpose is regarded as free from any condition.<sup>34</sup>

- (8) φύλασσε τὰν οἴκῳ καλῶς,  
 ὅπως ἄν ἀρτίκολλα συμβαίῃη τάδε. *Aesch. Cho. 579-580*

fýlasse ta= (e)n= oíkō kalôs hópōs =án  
 watch.IMP.2SG REL.NOM.N.PL in house.DAT well so.that AN  
 artíkolla symbáinē táde  
 harmonious.NOM.N.PL go.together.SUBJ.3SG(=PL) this.NOM.N.PL

‘Watch what happens inside the house, so that these things work well together.’

There are also some cases in which the final clause takes ἄν with the optative: after primary tenses it certainly has a potential meaning as well as final; after secondary tenses the potential force is less obvious, though it is difficult to take it in any other sense<sup>35</sup>.

<sup>30</sup>Smyth (1920, p. 504)

<sup>31</sup>Pronunciation: [ˈo.pʰra].

<sup>32</sup>Xenophon represents a strange exception in the Attic prose, being the only author to use ὡς ἄν freely in final clauses (alongside his favourite ὅπως ἄν), showing that he felt the original force of ὡς as a relative adverb of manner. See Goodwin (1889, pp. 401-402); see later in this section for conditional relatives.

<sup>33</sup>Pronunciation: [ˈhi.na], [ˈmɛ:]

<sup>34</sup>Goodwin (1889, pp. 116-117), Rutherford (1912, p. 108) and Smyth (1920, pp. 493-496).

<sup>35</sup>Goodwin (1889, pp. 117-118)

- (9) τὰς πρῶρας κατεβύρσωσαν, ὅπως ἂν ἀπολισθάνοι ἡ χεὶρ ἐπιβαλλομένη. *Thuc. VII, 65*

tás prōras katebýrsōsan hōpōs =án  
 the.ACC.F.PL prow.ACC.PL cover.with.hides.AOR.3PL so.that AN  
 apolisthánoi hē khéir epiballoménē  
 slip.off.OPT.3SG the.NOM.F.SG hand.NOM throw.on.PTCP.MID.NOM.F.SG

‘They covered the prows with hides, in order that the iron hand when thrown on might slip off.’

### Consecutive clauses

In consecutive clauses, the particle ἄν with ὥστε<sup>36</sup> and the infinitive (that denotes the consequence which the action in the main clause tends to) expresses a potential form, corresponding to the optative or the indicative<sup>37</sup>; with ὥστε and a finite mood (that denotes the actual consequence of the action in the main clause), it provides again a potential force<sup>38</sup>.

- (10) ὥστε μὴ ἂν δύνασθαι ἐπανελθεῖν οἴκαδε. *Dem. Chers. 35*

hōste mē =án dýnasthai epanelthêin oíkade  
 so.that not AN can.INF.MID return.AOR.INF to.home

‘So that he could not return home.’

### Conditional clauses

In conditional clauses in which the protasis has the verb in the subjunctive ἄν is regularly joined to εἰ (forming the compound ἐάν, ἦν<sup>39</sup> or ἄν); also, it is regularly used in the apodosis with the optative or the past tenses of the indicative when the non-fulfilment of the condition is implied<sup>40</sup>.

The first case corresponds to future suppositions stated distinctly and vividly, with the apodosis taking the future indicative or some other form expressing future time<sup>41</sup>, as seen in (11). It can also express present or past suppositions, with the protasis referring generally

<sup>36</sup>Pronunciation: [ˈhɔːs.te].

<sup>37</sup>Goodwin (1889, p. 227)

<sup>38</sup>Goodwin (1889, pp. 229-230) and Smyth (1920, pp. 509-511).

<sup>39</sup>Pronunciation: [ej], [ˈeːan], [ˈeːn].

<sup>40</sup>Goodwin (1889, p. 137) and Smyth (1920, pp. 512-513).

<sup>41</sup>Goodwin (1889, p. 163), Rutherford (1912, pp. 114-115) and Smyth (1920, pp. 523-524).

to any fact and the apodosis (with the present or imperfect indicative) to a customary or repeated action or a general truth<sup>42</sup>, as seen in (12).

(11) ἐάν τι λάβω, δώσω σοι.

e(i)=án =ti                      lábō                      dōsō                      =soi  
if.AN    INDEF.ACC.N.SG receive.AOR.SUBJ.1SG give.FUT.1SG you.DAT.SG

‘If I receive anything, I will give it to you.’

(12) ἤν ἐγγύς ἔλθῃ θάνατος, οὐδεὶς βούλεται θνήσκειν.

ēn    engýs    élhē                      thánatos    udéis                      búletai  
if.AN close    come.AOR.SUBJ.3SG death.NOM no.oneNOM.M.SG want.3SG.MID  
thnēskein  
die.INF

‘If death comes close, no one wants to die.’

The second case (with ἄν in the apodosis and the optative both in the protasis and the apodosis) corresponds to future suppositions that are stated less distinctly and vividly than the subjunctive would state; the apodosis states what would be the result if the condition were fulfilled<sup>43</sup>.

(13) εἰ ἔλθοι, πάντ’ ἄν ἴδοι.

ei=    élthoi                      pánt(a)                      =án ídoi  
if    go.AOR.OPT.3SG all.ACC.N.PL AN    see.AOR.OPT.3SG

‘If he should go, he would see everything.’

In the last case (with ἄν in the apodosis and the past tenses of the indicative both in the protasis and the apodosis), the protasis states a present or a past supposition which is not or was not fulfilled, while the apodosis expresses what would be or would have been the result if that condition were or had been fulfilled<sup>44</sup>.

(14) εἰ τοῦτο ἐπράσσε, καλῶς ἂν εἶχε.

ei=    tûto                      ép rasse                      kalôs =án êikhe  
if    this.ACC.N.SG do.AOR.3SG well    AN    have(=be).IMPF.3SG

‘If he did this, it would be well.’

These cases are summarised in table (15)

<sup>42</sup>Goodwin (1889, p. 170), Rutherford (1912, p. 114) and Smyth (1920, p. 528).

<sup>43</sup>Goodwin (1889, p. 168), Rutherford (1912, p. 115) and Smyth (1920, p. 526).

<sup>44</sup>Goodwin (1889, p. 147), Rutherford (1912, p. 113) and Smyth (1920, pp. 518-519).

TIME	FORM	PROTASIS	APODOSIS
(15) PRESENT	Unreal	εἰ with imperfect indicative	ἄν with imperfect indicative
	General	ἐάν with subjunctive	present indicative or equivalent
PAST	Unreal	εἰ with aorist or imperfect indicative	ἄν with aorist or imperfect indicative
FUTURE	More Vivid	ἐάν with subjunctive	future indicative or equivalent
	Less Vivid	εἰ with optative	ἄν with optative

There are also others types which can be defined as mixed forms, such as:

- a present or past tense of the indicative in the protasis and a potential optative or indicative with ἄν in the apodosis (each having its proper force); this formation can also express an unreal condition followed by a potential optative (not strictly a logical combination)<sup>45</sup>;

(16) εἰ γὰρ οὗτοι ὀρθῶς ἀπέστησαν, ὑμεῖς ἄν οὐ χρεῶν ἄρχοιτε. *Thuc. III, 40*

ei= gár    îtoi                    orthôs    apéstēsan            hymêis    =án u=  
if   in.fact this.NOM.N.PL rightfully secede.AOR.3PL you.NOM.PL AN not  
khreōn                    árkhoite  
just.GEN.N.PL dominate.OPT.2PL

‘If these seceded rightfully, you would not have a just dominion.’

- a potential optative with ἄν in the protasis may express a present condition, while a potential indicative with ἄν a present or a past condition<sup>46</sup>;

(17) καὶ ἐγὼ, εἴπερ ἄλλῳ τῷ ἀνθρώπῳ πειθοίμην ἄν, καὶ σοὶ πείθομαι. *Plat. Pr. 329b*

kái egō    éi=per állo                    =tō                    anthrōpōn  
and I.NOM if            other.DAT.M.SG INDEF.DAT.M.SG man.GEN.PL  
peithóimēn                    =án kái soi                    péithomai  
trust.OPT.1SG.MID AN    and you.DAT.SG trust.1SG.MID

‘And I, if I would trust any man, trust you.’

<sup>45</sup>Goodwin (1889, p. 190)

<sup>46</sup>Goodwin (1889, p. 192)

- other irregular constructions which are cases of *anacoluthon*, in which the form changes in the middle of the sentence<sup>47</sup>.

### Concessive clauses

All that has been discussed about conditional clauses stands for concessive clauses as well: these are formed with a *καί* («and») before *εἰ* or *ἐάν* (> *κᾶν*)<sup>48</sup>.

(18) γελᾷ δ' ὁ μῶρος, κᾶν τι μὴ γελῶϊον ᾗ. *Men. Sent. 108*

gelâ =d(é) ho= mōros k(ai)=án =ti mē  
 laugh.3SG and the.NOM.M.SG fool.NOM even.if.AN INDEF.NOM.N.SG not  
 gelōion ê  
 laughable.NOM.N.SG be.SUBJ.3SG

‘The fool laughs even if there is nothing to laugh at.’

### Relative clauses

Goodwin and Smyth define as “conditional relatives” relative clauses with indefinite antecedents, which give a conditional force to the clauses. The particle *ᾧν* is regularly joined to the relative word when they are followed by the subjunctive (generally, the constructions are similar to the corresponding proper conditional forms)<sup>49</sup>.

(19) ὃ τι ᾧν βούληται, δώσω.

hó =ti =án búlētai dōsō  
 REL.ACC.N.SG INDEF.ACC.N.SG AN want.SUBJ.3SG.MID give.FUT.1SG

‘I will give him whatever he wishes.’

≈ ἐάν τι βούληται, δώσω.

e(i)=án =ti búlētai dōsō  
 if.AN INDEF.ACC.N.SG want.SUBJ.3SG.MID give.FUT.1SG

‘If he wishes anything, I will give it.’

Instead, a relative clause with a non indefinite antecedent, *ᾧν* and the optative simply denotes a potential force of the sentence<sup>50</sup>.

<sup>47</sup>Goodwin (1889, pp. 192-193)

<sup>48</sup>Smyth (1920, p. 537). Pronunciation: [ˈkaj], [ˈkan].

<sup>49</sup>Goodwin (1889, pp. 197-199), Rutherford (1912, pp. 117-120) and Smyth (1920, pp. 576-580).

<sup>50</sup>Goodwin (1889, pp. 196-197)

### Indirect questions

In indirect questions the moods with ἄν are the same as in the corresponding statements after primary tenses (past indicative for unreality and optative for potentiality), while after secondary tenses the mood can be shifted to the optative<sup>51</sup>.

(20) ἤρετο εἰ ἄν τις ἐμοῦ σοφώτερος εἴη.

ēreto            ei= án =tis            emû    sophōteros            éiē  
ask.IMP.3SG if    AN INDEF.NOM me.GEN wise.COMP.NOM.M.SG be.OPT.3SG

‘He asked if there could be anyone wiser than me.’

### Temporal clauses

If a temporal clauses with ἕως, ἕστε, ἄχρι, μέχρι («until»), πρὶν («before»)<sup>52</sup> or a relative adverb of time (such as ὅτε, ὅποτε, ἐπειδή<sup>53</sup>) refers to the future and depends on a verb of future or simply depends on a verb denoting a customary or repeated action or a general truth, it takes ἄν with the subjunctive (like a conditional relative clause), as in (21). Potential optative or indicative with ἄν can also appear in temporal clauses, though they maintain their proper force, as in (22)<sup>54</sup>.

(21) ποιούμεν ταῦθ' ἕκαστόθ', ἕως ἄν αὐτὸν ἐμβάλωμεν ἐς κακόν.    *Aristoph. Nub. 1458*

poiûmen tâuth(a)            hekastóth(e) héōs =án autón            embálōmen  
do.1PL this.ACC.N.PL every.time    until AN him.ACC.M.SG cast.AOR.SUBJ.1PL  
es= kakón  
to bad.ACC

Every time we treat him thus, until we cast him into trouble.

(22) ἐπιχειρεῖ, ἤνικ' ἄν ἡμεῖς μὴ δυναίμεθ' ἐκεῖσ' ἀφικέσθαι.    *Dem. 1Phil. 31*

epikheirêi hēník(a) =án hēmêis    mē dunáimeth(a) ekêis(e) aphikésthai  
begin.3SG when    AN we.NOM not can.OPT.1PL there reach.INF

‘He begins when we might not be able to reach the spot.’

<sup>51</sup>Smyth (1920, p. 605)

<sup>52</sup>Pronunciation: [ˈhe.ɔ:s], [ˈes.te], [ˈa.kʰri], [ˈme.kʰri], [ˈprin].

<sup>53</sup>Pronunciation: [ˈho.te], [ˈho.po.te], [ˈe.pej.ˈde:]

<sup>54</sup>Goodwin (1889, pp. 235-239), Rutherford (1912, pp. 120-122) and Smyth (1920, pp. 539-547).

### Comparative clauses

In comparative clauses ἄν can be selected with a potential optative or an unreal indicative, both of which maintain their proper force, or with a subjunctive, expressing a future time or general present conditions (while the optative with ἄν can also represent less vivid future conditions)<sup>55</sup>.

- (23) ἔστι μείζω τάκεινων ἔργα ἢ ὡς τῷ λόγῳ τις ἂν εἴποι. *Dem. 2Phil. 11*

ésti méizō ta= (e)kainōn érga ē  
 be.3SG(=PL) greater.NOM.N.PL the.NOM.N.PL that.GEN.M.PL deed.NOM.PL than  
 hōs= tō lōgō =tis =án eípoi  
 COMP the.DAT.M.SG word.DAT INDEF.NOM.M.SG AN say.AOR.OPT.3SG

‘Their deeds are greater than anyone could tell in words.’

- (24) τὸ γὰρ πέρας, ὡς ἂν ὁ δαίμων βουληθῆ, πάντων γίγνεται. *Dem. Cor. 92*

tō =gár péras hōs= án ho= dáimōn  
 the.NOM.N.SG in.fact end.NOM as AN the.NOM.M.SG god.NOM  
 bulēthê pántōn gígnetai  
 want.AOR.PSV(=MID).SUBJ.3SG all.GEN.N.PL happen.3SG

‘The end of all happens as the god wills.’

## 1.4 Distribution of ἄν and other phenomena

There are not many remarks over the distribution of ἄν in traditional studies.

Generally, adverbial particles tend to gravitate to the opening of the sentence, especially some enclitic particles, by the general tendency of clitics to appear in second position (known as Wackernagel’s law). Sometimes, though, these particles can be postponed, also at the end of the sentence, or they can emphasize an individual word, in which case they immediately follow (γε, δῆ) or precede it (καί)<sup>56</sup>.

More specifically about ἄν, when this particle is used with the subjunctive, if it does not coalesce with the relative or the conjunction, it is generally separated from it only by monosyllables as μέν, δέ, τε, γάρ, πέρ etc.<sup>57</sup>, as seen in (25). When it is used with the indicative or the optative it stands either near the verb or to some other emphatic word

<sup>55</sup>Smyth (1920, pp. 557-558)

<sup>56</sup>Denniston (1934, lviii-lx)

<sup>57</sup>These are all defined as particles: see Denniston (1934). Pronunciation: [ˈmen], [ˈde], [te], [ˈgar], [ˈper].



(such as interrogatives, negatives, adverbs of time and place), as in (26). It is never the case that ἄν begins a sentence or a clause<sup>58</sup>.

- (25) a. ἀλλ' ἄγεθ', ὡς ἄν ἐγὼν εἴπω, πειθώμεθα πάντες. *Il. II, 139*  
 all(á) ágeth(e), hōs= án egōn éipō peithōmetha  
 but EXHORTATION as AN I.NOM say.AOR.SUBJ.1SG obey.SUBJ.1PL.MID  
 pántes  
 all.NOM.M.PL  
 'Let us obey as I may direct.'
- b. ἄ δ' ἄν ἐκὼν ἐκόντι ὁμολογήσῃ, φασὶν δίκαια εἶναι. *Plat. Symp. 196c*  
 há =d(é) =án hekōn hekónti  
 REL.ACC.N.PL and AN willing.NOM.M.SG willing.DAT.M.SG  
 homologēsē fasín díkaia êinai  
 grant.AOR.SUBJ.3SG say.3PL right.ACC.N.PL be.INF  
 'The things that one willingly grants to one willingly other, those are said to be right.'
- (26) a. ἀλλὰ τίς δὴ θεῶν θεραπεία εἶη ἄν ἡ ὁσιότης; *Plat. Euthyph. 13d*  
 allá tíς =dē theōn therapéia éiē =án  
 but what.NOM.F.SG then god.GEN.PL attention.NOM be.OPT.3SG AN  
 he= hosiótēs  
 the.NOM.F.SG holiness.NOM  
 'But what kind of attention to the gods may be holiness?'
- b. τάχιστα ἄν τε πόλιν οἱ τοιοῦτοι ἀπολέσειαν. *Thuc. II, 63*  
 tákhist(a) =án =te pólin hoi= toiûtoi apoléseian  
 quickly AN and state.ACC the.NOM.M.SG such.NOM.M.SG ruin.FUT.OPT.3PL  
 'Such men would quickly ruin a state.'

Some phenomena concerning ἄν are the omission of the verb (supplied by the context) and the omission of ἄν itself (again, supplied by the context), but the most interesting is that sometimes it is possible to find ἄν twice, or even three times, with the same verb.

- (27) a. ὥστ' ἄν, εἰ σθένος  
 λάβοιμι, δηλώσαιμ' ἄν οἱ αὐτοῖς φρονῶ. *Soph. El. 333-334*  
 hōst(e) =án ei= sthénos láboimi dēlōsaim(i) =án  
 so.that AN if strength.ACC take.AOR.OPT.1SG show.AOR.OPT.1SG AN  
 hōi(a) autôis phronô  
 REL.INDEF.ACC.N.PL them.DAT.M.PL think.1SG  
 'So that, if I had the strength, I would show what I think of them.'

<sup>58</sup>Goodwin (1889, pp. 71-73) and Smyth (1920, p. 399-400).

- b. οὐκ ἂν ἠγέεσθ' αὐτὸν καὶ ἐπιδραμεῖν; *Dem. 1Aph. 56*  
 uk= án hēgēisth(e) autón k(ai)=án epidramêin  
 not AN think.2PL.MID him.ACC.M.SG and.AN race.AOR.INF  
 'Don't you think he would have raced?'

The repetition may be done in long sentences, to make the conditional force felt through the whole, especially when broken by intermediate clauses, or just to emphasise particular words and their being affected by the contingency<sup>59</sup>.

<sup>59</sup>Goodwin (1889, p. 73) and Smyth (1920, p. 399-400)

# Chapter 2

## Corpus and data

### 2.1 Corpus

The texts for the corpus have been selected mainly with the intent to minimize diachronic and diatopic variation. Among the different periods in which the Greek literature is traditionally divided, the classical period was chosen: this spans from the Persian Wars (499-479 BCE) to Alexander the Great's death (323 BCE) and it is the most flourishing age of Greek literature in many genres, from theatre to philosophy, from oratory to historiography. The literary centre was obviously Athens, where all the masterpieces of this period have been born.

There are several reasons for choosing these time and place. There is a massive philological tradition over these works, which are among the most fortunate of Greek literature, therefore the general accuracy of the language in these texts is more than acceptable. Also, classical Attic Greek is the dialect from which the *koiné diálektos*, the variant spoken in the Hellenistic period in the various Greek kingdoms, was derived: this variant is the scholastic Greek, which means that grammars and linguistic studies mainly focus upon the *koiné* and the Attic dialect, reaching a deep level of understanding and description.

Lastly, this period was still to be reduced, since one century and a half is too big an interval to take into a synchronic account. In addition to this, it was preferable to identify and select works with a prose style that would be similar to a plain oral language. Therefore, the selected period is the first half of the IV century BCE in Athens and the selected works are Plato's *Symposium*, a philosophical dialogue, and Xenophon's *Anabasis*, a historical narration.

### 2.1.1 Plato's Symposium

Plato, whose real name was Aristocles, was born in Athens in the year 427 BCE. He became one of Socrates's disciples and followed him until his teacher's death in 399 BCE. Later, he founded the Academy and travelled multiple times to Italy, particularly at the tyrants' court in Syracuse. He died in Athens in the year 347 BCE<sup>1</sup>.

His works were composed in the form of the dialogue: according to Plato, poets are imitators and liars, teaching false notions and concepts; also, their use of rhetorics deceives their scholars and prevents them from approaching the truth. Therefore, the only acceptable way to transmit his teachings, if not orally, is the written dialogue, which only carries his own words without any artifice<sup>2</sup>.

The Symposium (Συμπόσιον, [ˈsym.'po.si.on]), probably written between his first and second journey to Sicily (387-367 BCE), talks about a banquet which would have taken place in 416 BCE at the tragedian Agathon's house: the scene, told by Apollodorus, which had heard it from Aristodemus, is set after the banquet, when the guests start to enjoy wine and entertain themselves conversing about Love. Apollodorus repeats the speeches given by Phaedrus, Pausanias, Eryximachus, Aristphanes (the comedian), Agathon and, of course, Socrates. At the end Alcibiades storms in already drunk and also gives a speech celebrating Socrates<sup>3</sup>. This dialogue is one of the most splendid gems inherited from the classics: Love, according to Socrates (which speaks Plato's mind) is not good, beautiful, wise, happy or immortal; it is instead a desire of good, beauty, wisdom, happiness and immortality<sup>4</sup>.

Being a dialogue, the Symposium probably closely resembles the oral language in the late fifth and early fourth century BCE. The use of direct discourse is frequent; the reasoning is carried out mainly via coordination and also conditionals, while there are many exchanges of questions and answers.

The edition which this work has followed the most is that of John Burnet (Plato, 1901). Other editions taken into account are Arnold Hug's (Plato, 1876), Léon Robin's (Plato, 1929) and Giovanni Reale's (Plato, 2001). To aid with the translation also the scholastic edition by Franco Ferrari (Plato, 1986) was consulted.

<sup>1</sup>Reale (2001, pp. 115-116)

<sup>2</sup>Privitera and Pretagostini (1997, pp. 498-499)

<sup>3</sup>Privitera and Pretagostini (1997, pp. 493-494)

<sup>4</sup>Reale (2001, p. 156)

### 2.1.2 Xenophon's Anabasis

Xenophon was born in Athens between 430 and 425 BCE. He too became a disciple of Socrates during his youth. He enlisted in the army that the Persian Cyrus gathered against his brother and king Artaxerxes II; after his general lost and died, in 401 BCE, he was elected commander of the Greek mercenaries and managed to lead them back home. He was close to the Spartan king Agesilaus II, and in 394 BCE he was exiled from Athens. He then moved across Greece, until eventually he returned home, where he died around 355 BCE<sup>5</sup>.

Xenophon is best known as a historiographer: his masterpiece is the *Hellenika*, in which he picked up the historic narration of the Peloponnesian War, where Thucydides had left it, and completed it, dealing with the events from 411 to 362 BCE. The *Anabasis* (Ἀνάβασις, [ˈa.na.ba.sis], «Ascent»), whose composition is undated, is the book in which Xenophon tells the story of Cyrus's expedition and the Greeks' journey back home; his narration is in third person and was published under a false name to exalt his role and merits<sup>6</sup>.

The narration proceeds almost as that of a war journal, with many indications of time and space. Because of his will to justify all his moves and commands, the hypotaxis is frequent, mainly with conditional and temporal clauses.

The edition which this work has followed the most is that of Karl Hude (Xenophon, 1931b). Other editions taken into account are Paul Masqueray's (Xenophon, 1930, 1931a) and Edgar Cardew Marchant's (Xenophon, 1963). To aid with the translation also the scholastic edition by Franco Ferrari (Xenophon, 1978) was consulted.

## 2.2 Data

There are 820 occurrences of ἄν between the Symposium and the Anabasis: 252 in the former, 568 in the latter (which is about three times longer than Plato's dialogue). Every sentence in which ἄν occurs has been extracted and collected in a table, which then has served as instrument of analysis through data crossing.

### 2.2.1 Collection table

The table has been organized with the following criteria:

- MOOD - the literature has widely described ἄν as a modal particle and has many times highlighted its different uses in correlation with different verb moods; ἄν can appear

<sup>5</sup>Privitera and Pretagostini (1997, pp. 443-445)

<sup>6</sup>Privitera and Pretagostini (1997, pp. 446-447)

with the indicative, subjunctive, optative, infinitive and participle (never with the imperative).

- TENSE - due to  $\check{z}\nu$ 's close relationship with the verb, it seemed appropriate to include also the other main feature of the verb; the possible tenses are present, imperfect, future, aorist, perfect, pluperfect and future perfect (though there is no occurrence of the last two).
- CLAUSE TYPE - both MOOD and  $\check{z}\nu$  are related in some way to the type of the clause in which they appear: the mood is often selected according to the clause type (e.g. final clauses always select the subjunctive);  $\check{z}\nu$ , besides being involved by the transitivity of these relationships (clause type with mood and mood with  $\check{z}\nu$ ), may be directly affected, so that all the grammars seen above in §1 have listed its possible uses in different types of subordinate.  $\check{z}\nu$  can appear in main clauses, exclamations, questions, embedded questions, declarative, causal, final, consecutive, temporal, conditional, concessive, comparative, conditional-comparative, relative and indefinite-relative clauses.
- POSITION - this is the main criterion, since the aim of this work is to find constants in the syntactic distribution of  $\check{z}\nu$ ; when it appears second in the clause the entry is “wack” for “Wackernagel position”<sup>7</sup>; if other Wackernagel words appear before  $\check{z}\nu$  but  $\check{z}\nu$  is still recognizable as belonging to this high position, the entry is “2wack” or “3wack”, respectively for “second” and “third Wackernagel word”; if  $\check{z}\nu$  is located lower, the entry depends on the position related to the verb, therefore “preV” or “postV”; sometimes, it is not discernable whether  $\check{z}\nu$  is located high or low in the structure, since the sentence presents the linear order “[word]  $\check{z}\nu$  [verb]”, therefore the entry is “wack/preV”.
- DOUBLE  $\check{z}\nu$  -  $\check{z}\nu$  can appear twice in a sentence (the entries are “yes” or “no”); if it appears twice in a clause the entry is “same”; at this point, it is still not clear if this phenomenon will have something to do with the following analysis, therefore it has not been excluded yet.
- COMP+ $\check{z}\nu$  -  $\check{z}\nu$  can coalesce with the complementiser (the entries are “yes” or “no”); as seen in §1, this phenomenon is restricted to subordinate clauses with a subjunctive verb, therefore it will be seen if this is true and if this happens under particular conditions.

An example of an entry in the table is seen in (1).

<sup>7</sup>See §3.1 and §3.2.

REFERENCE	EXAMPLE					AUTHOR
Plat. Symp. 174b	ἀλλὰ θαυμάζω καὶ αὐτὸς ποῦ ᾗν εἶε.					Plato

(1)

MOOD	TENSE	CLAUSE TYPE	POSITION	DOUBLE ᾗν	C+ᾗν
opt.	pres.	interrogative	wack/preV	no	no

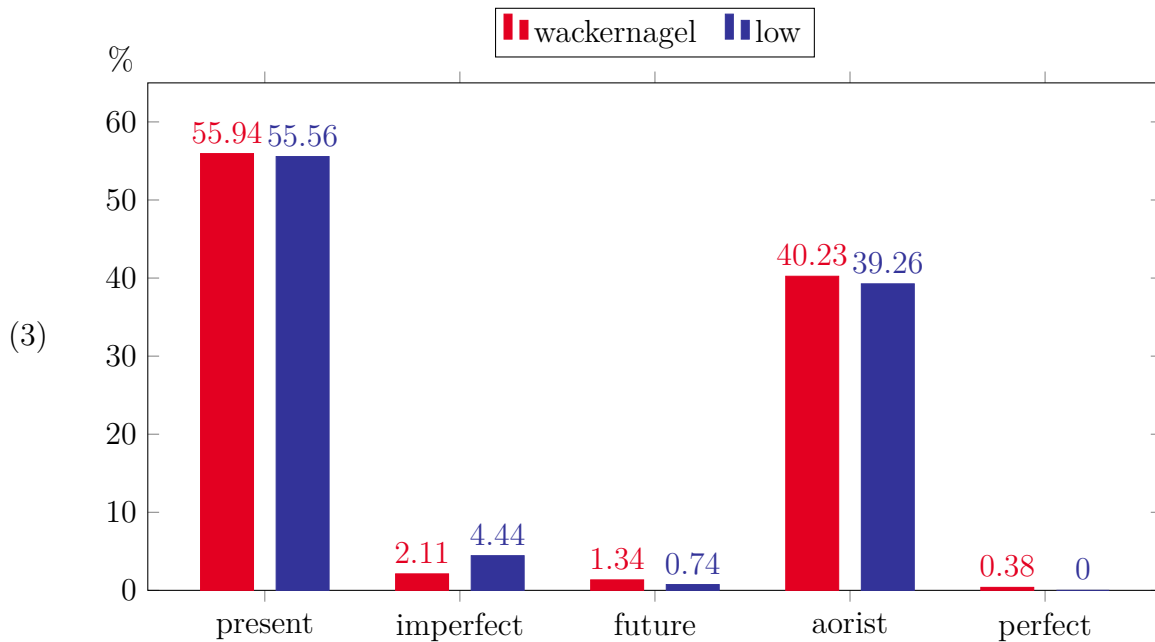
## 2.2.2 Data crossing and first observations

At this point, we are going to cross data in different ways to look for meaningful correlations. At this first step, the entries in the POSITION column “wack”, “2wack” and “3wack” will be merged together, since we assume that they represent the same position in the structure and other words that may intervene do not matter: these other Wackernagel words are always discourse or coordination particles, that originate higher than the first linear word and then cause the movement of this element to their Spec position (as seen in §3.1); this means that every ᾗν in a “2wack” or “3wack” position at some point in the derivation is located simply in the “wack” position. Also “preV” and “postV” will be merged under the label “low”, since the point is to differentiate between the higher position (Wackernagel) and lower positions; also, the uncertain entries (“wack/preV”) cannot be taken into account, since they represent ambiguous data.

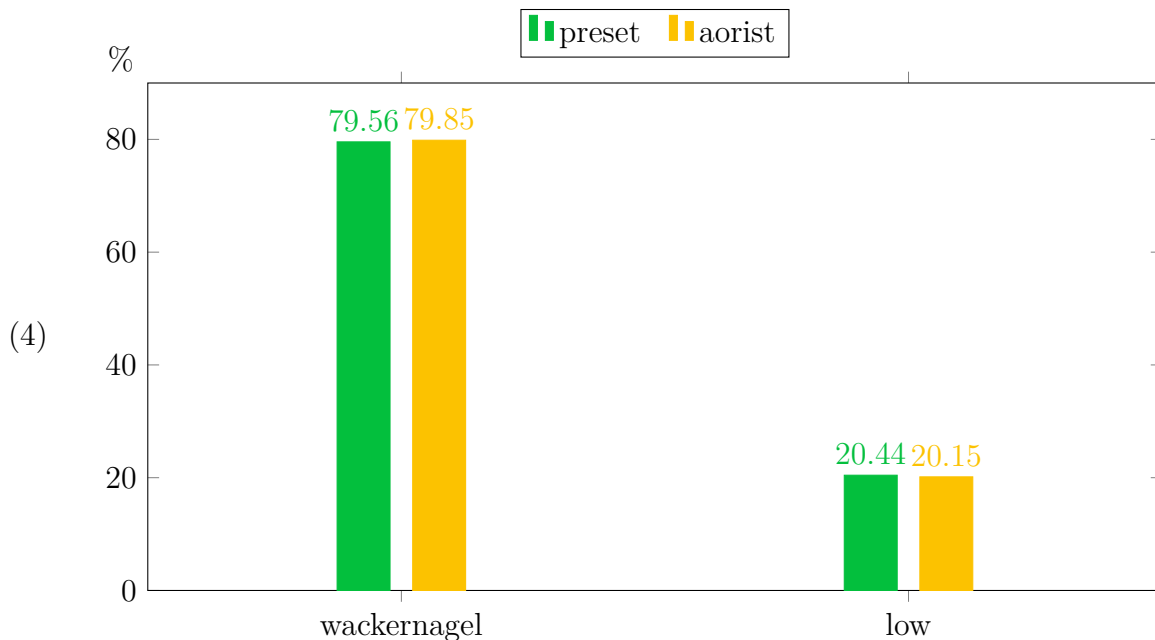
We start by crossing TENSE and POSITION:

	wackernagel	low	total
present	292	75	367
imperfect	11	6	17
(2) future	7	1	8
aorist	210	53	263
perfect	2	0	2
total	522	135	657

At first glance, there appears to be no meaningful correlation. This intuition is confirmed by looking at data in percentage as shown in graphs (3) and (4), the former considering the influence of the position of ᾗν over the selection of the tense, the latter considering the influence of the tense over the distribution of ᾗν.



If the position of  $\check{\nu}$  has something to do with the selection of the tense, the data shows that  $\check{\nu}$  in Wackernagel position selects 55.94% of the time the present, 2.11% of the time the imperfect, 1.34% of the time the future, 40.23% of the time the aorist and 0.38% of the time the perfect, while  $\check{\nu}$  in a lower position selects 55.56% of the time the present, 4.44% of the time the imperfect, 0.74% of the time the future, 39.26% of the time the aorist and 0,00% of the time the perfect. The differences between Wackernagel and lower position are respectively 0.38%, 2.34%, 0.60%, 0.97% and 0.38%: these margins are too narrow to be meaningful, showing that the position of  $\check{\nu}$  is not relevant for the selection of the tense.





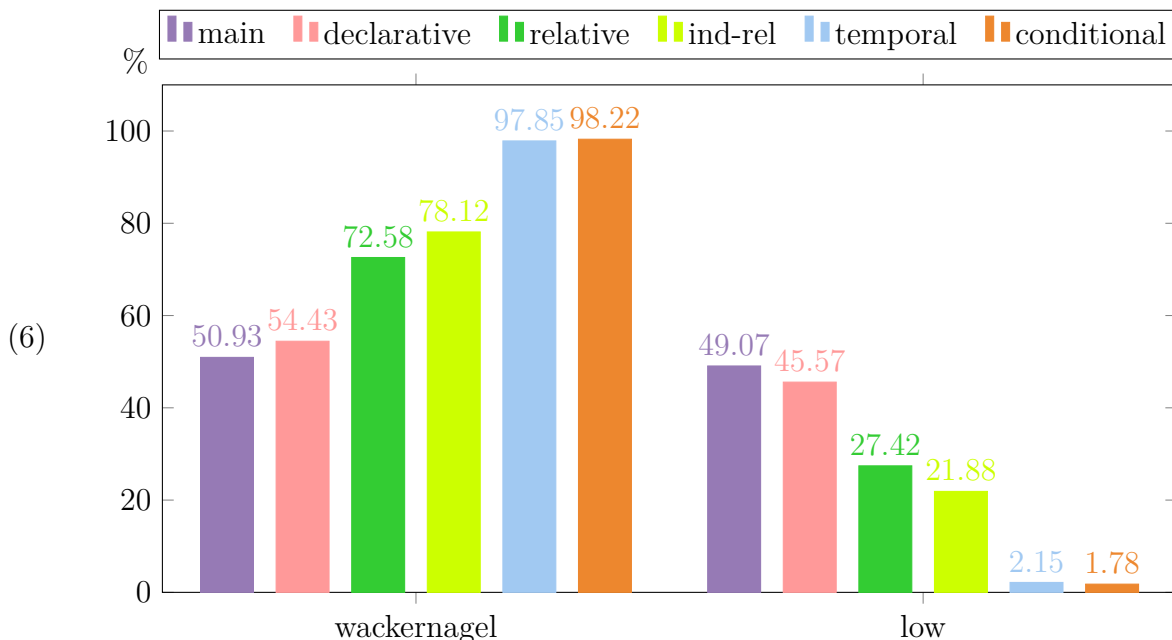
If tense has something to do with the position of  $\check{z}v$ , the data shows that the present selects 79.56% of the time the Wackernagel position and 20.44% of the time the lower position, while the aorist selects 79.85% of the time the Wackernagel position and 20.15% of the time the lower position (data concerning other tenses is too limited to be relevant). The differences are both 0.29%, again too narrow to be meaningful, showing that the tense is not relevant for the position of  $\check{z}v$ .

As it could be predicted, tense has nothing to do with the position of a modal particle, therefore it will not be taken in consideration further in the analysis.

We move then to cross CLAUSE TYPE and POSITION:

	wackernagel	low	total
main	55	53	108
exclamation	1	0	1
question	16	6	22
embedded question	5	2	7
declarative	43	36	79
causal	2	0	2
final	7	1	8
(5) consecutive	2	6	8
temporal	91	2	93
conditional	221	4	225
concessive	6	0	6
comparative	1	0	1
conditional-comparative	2	1	3
relative	45	17	62
indefinite-relative	25	7	32
total	522	135	657

This table is less balanced than the previous one. Given that the position of  $\check{z}v$  can not influence the clause type (it would be a fairly odd hypothesis), we look at data in percentage in graph (6) to inquire if the clause type has some influence over the position of  $\check{z}v$ . We focus on the most relevant data, that is the clause types that are more frequent (main, declarative, relative, indefinite-relative, temporal and conditional).



Main and declarative clauses select *žv* evenly in Wackernagel or lower position (50.93% and 54.43% the former, 49.07% and 45.57% the latter), while relative and indefinite-relative clauses start to have a tendency towards Wackernagel position (72.58% and 78.12% versus 27.42% and 21.88%) and temporal and conditional clauses largely prefer the Wackernagel position (97.85% and 98.22% versus 2.15% and 1.78%).

Though the numbers appear to be promising, suggesting that there is indeed some kind of correlation underneath, it is still early to draw any conclusion: verbal mood can not be left aside while analysing modality structures and clause types.

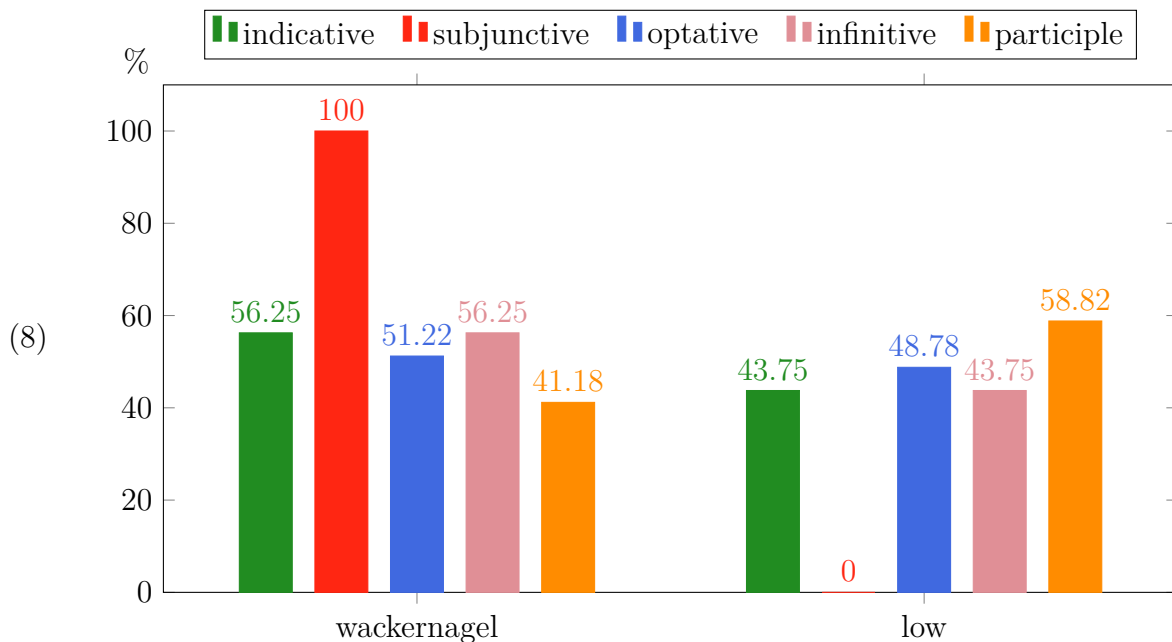
Thus, we also cross MOOD and POSITION<sup>8</sup>:

(7)

	wackernagel	low	total
indicative	18	14	32
subjunctive	375	0	375
optative	84	80	164
infinitive	27	21	48
participle	7	10	17
total	511	125	636

Once again, we turn to data in percentage in graph (8).

<sup>8</sup>It happens sometimes that the indicative or the subjunctive in subordinates whose matrix clause has a past tense are replaced by the optative (Goodwin, 1889, p. 5); therefore, all optatives after past tenses in the corpus are marked as “oblique optative” and are not considered for table (7).



There is one striking entry in this table: while other moods seem to be rather balanced between Wackernagel and lower position (the widest difference is 17.64% in the participle, though this represents only 2.67% of the total occurrences), clauses with the subjunctive mood never take  $\check{\nu}$  in a low position of the structure, but always in Wackernagel position. This is statistically relevant, since these cases make up for 54.56% of all occurrences.

This is the first zero we run into, or, to put it in other terms, the first 100% consistency of a correlation. The importance of the mood suggests that it may also be responsible for other data from precedent tables; in (5), for instance, the few temporal and conditional clauses with  $\check{\nu}$  in a lower position all have the verb in participle mood.

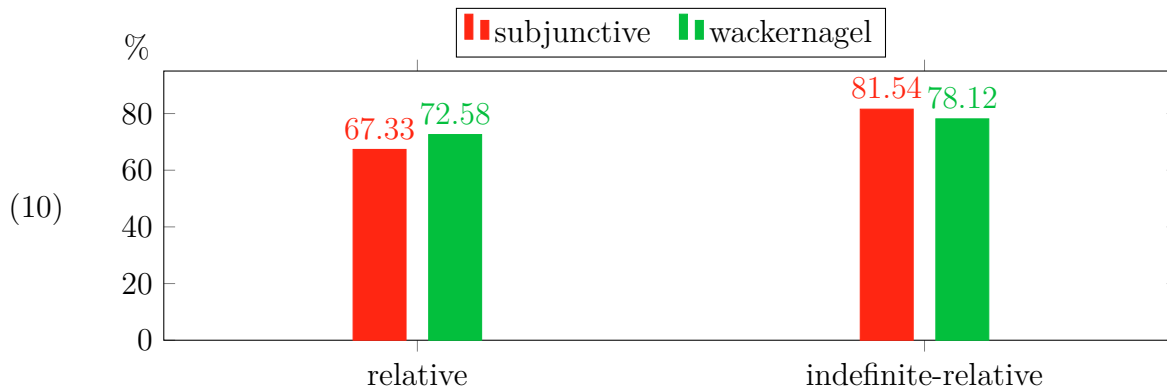
In fact, the less strict correlations that had emerged from table (5) might just be a reflection of the role of moods in the selection of  $\check{\nu}$ . The following table crosses `CLAUSETYPE` with `MOOD`<sup>9</sup>:

<sup>9</sup>The total is greater than that in precedent tables because uncertain data in the `POSITION` column (“wack/preV”) is not misleading here. Oblique optative is once again ignored.

	ind.	subj.	opt.	inf.	part.	total
main	33	0	109	0	0	142
exclamation	0	0	1	0	0	1
question	5	0	25	0	0	30
embedded question	0	0	7	0	0	7
declarative	5	0	28	56	0	89
causal	0	1	2	2	0	5
final	0	6	1	0	1	8
(9) consecutive	0	0	5	3	3	11
temporal	0	97	0	0	2	99
conditional	0	217	0	0	8	225
concessive	0	6	0	0	0	6
comparative	0	1	0	0	0	1
conditional-comparative	1	0	0	0	2	3
relative	5	68	26	1	1	101
indefinite-relative	3	53	9	0	0	65
total	52	449	213	62	17	793

What table (9) shows is that mood and clause type are correlated, especially the subjunctive mood:

- in temporal, conditional, concessive and comparative clauses with  $\check{\nu}$  only the subjunctive is selected<sup>10</sup>;
- relative and indefinite-relative clauses take the subjunctive 67,33% and 81,54% of the time, numbers that are close to those seen in table (5) for their relation to  $\check{\nu}$  in Wackernagel position;



<sup>10</sup>Infinitive and participle with  $\check{\nu}$  always represent a finite mood (Smyth, 1920, pp. 411-412), therefore they are left unmentioned for now.

- final clauses with  $\check{\alpha}\nu$  are introduced by either  $\delta\pi\omega\varsigma$  or  $\acute{\omega}\varsigma$ <sup>11</sup>, not by proper final complementisers;
- the one case of causal clause with  $\check{\alpha}\nu$  and the subjunctive is introduced by  $\acute{\epsilon}\pi\epsilon\iota\delta\acute{\alpha}\nu$ , which usually introduces temporal clauses set at a time preceding that of the matrix clause;
- in other clause types  $\check{\alpha}\nu$  and the subjunctive never appear together.

It seems that the few derivations from the norm are all justifiable from case to case, therefore these data may result meaningful for the analysis.

### 2.2.3 Research questions

In 2.2.2 the data has shown that there is no evident correlation between the tense of the verb and the position of  $\check{\alpha}\nu$  (table (2), graphs (3) and (4)), that there might be some correlation between the clause type and the position of  $\check{\alpha}\nu$  (table (5) and graph (6)) and that it is safe to assume that there actually is a correlation between verb mood and the position of  $\check{\alpha}\nu$ , at least for what concerns the subjunctive (table (7) and graph (8)). Also, table (9) and graph (10) may represent a link between the clause type and the position of  $\check{\alpha}\nu$ , showing that their correlation depends directly on the mood of the clause.

The following analysis will move on from these observations: the main research question is enunciated in (11); the corollary questions are those in (12).

- (11) Why does  $\check{\alpha}\nu$  appear only in “Wackernagel position” in a clause with the verb in the subjunctive?
- (12)
  - a. Why are other positions in the structures available to  $\check{\alpha}\nu$  with other verb moods?
  - b. Which positions are these exactly?
  - c. How does this relate to the selection of verb mood depending on the clause type?

<sup>11</sup>This complementisers originated from relative adverbs of manner, as seen before in §1.3, page 14 and note 32.



# Chapter 3

## Critical revision of previous generative studies

Generativism probably has not been around long enough to produce an amount of works about AG comparable to that about other languages. The syntactic studies have mainly focused on the left periphery, which appears to be the easiest clause domain to approach: as a matter of fact, the label ‘free word order language’ seems to scare off any attempt at a complete syntactic analysis.

When the particle  $\check{\nu}$  is taken into account, it is usually within the discussion about clausal clitics, which play an important role in AG sentences.

The following is a selection of generative studies: some insights will turn out to be useful in the subsequent analysis of the distribution of  $\check{\nu}$ , while others are going to be omitted either because they are not relevant or not borne out by the data.

### 3.1 Beschi’s cartographic approach

To start off this section, it is useful to look at a Ph.D. dissertation: “Towards a Cartographic Approach to the Study of Greek Word Order”, by Fulvio Beschi (2011). His aim is to go beyond the traditional grammars to adopt the categories of the more fresh and recent theory that is generativism, particularly the cartographic approach<sup>1</sup>. The result is a long dissertation in which he reanalyses most of the phrasal components known to every Greek linguist with this approach, from nominal phrase to adjectival, from article to pronouns, from arguments to adjuncts, from complements to predicates and so on.

There are some passages which might concern this work: they are those in which Beschi

<sup>1</sup>Beschi (2011, pp. 7-8)

deals with a phenomenon known for many classical languages and particularly widespread in AG, that is Wackernagel's Law. This is important because, as he points out, ἄν, which he defines as an expression of eventuality or possibility, is a "Wackernagel word"<sup>2</sup>.

Beschi states that this label combines different terms that for various reasons have this tendency to gravitate in second position. He distinguishes between<sup>3</sup>:

- absolute second position words: these are some enclitic or non-enclitic particles that support coordination (μέν, δέ, γάρ etc.) and appear in second position even within constituents;

(1) ὁ δὲ ἄνθρωπος

ho= dé ánthrōpos  
the and man

- relative second position words: these are generally enclitic indefinite pronouns and adverbs (μοι, τις, ποτε etc.) and appear after the first constituent or even further in the sentence (after pragmatically-relevant elements).

(2) τὴν ἄσπιδά τιμὶ δίδου

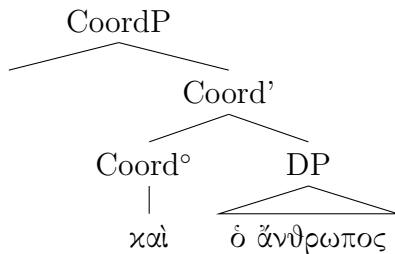
tēn áspidá =tini dídu  
the.ACC shield.ACC INDEF.DAT give.IMP

To Beschi, the syntactic interpretation of the first type must be the same as the one for non-Wackernagel coordinative particles as καί:

(3) a. καὶ ὁ ἄνθρωπος

kái ho= ánthrōpos  
and the man

b.



Therefore, a Wackernagel enclitic particle causes the movement of the first non-enclitic element in the linear order to their Spec position<sup>4</sup>; the derivation of (1) will then be:

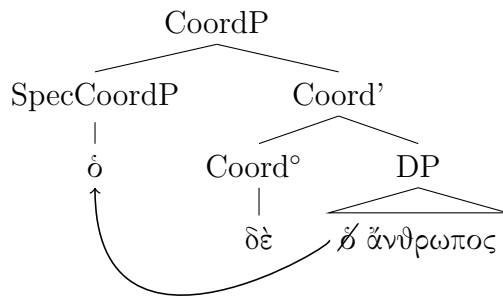
<sup>2</sup>Beschi (2011, p. 132)

<sup>3</sup>Beschi (2011, pp. 196-197)

<sup>4</sup>Beschi (2011, pp. 197-199)

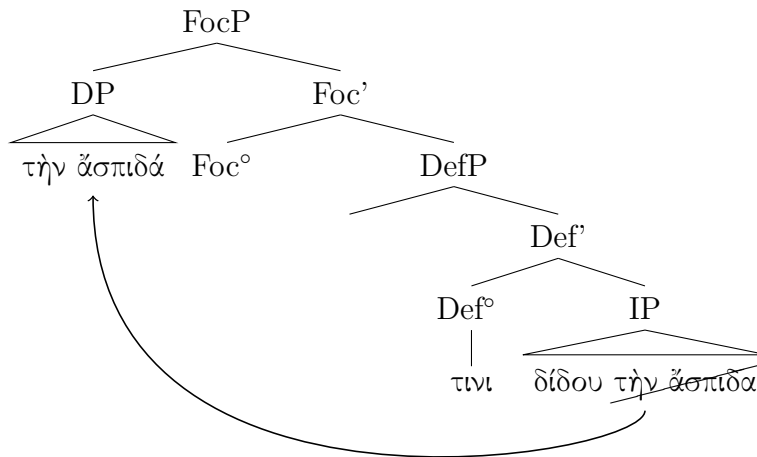


(4)



The enclitics of the second type, according to Beschi, are located in the higher position of the Split-IP, namely DefP<sup>5</sup>, which expresses the definiteness or indefiniteness, as those particles actually do; therefore, they appear after Topic and Focus positions<sup>6</sup>, and the derivation of (2) will be:

(5)



As for the case of *ἔν*, Beschi does not provide a derivation for its position in the structure, neither does he state to which category of Wackernagel words it is part of. However, being frequently high in the clause, it often interacts with first type enclitics as *δέ*.

It must be pointed out that *δέ*, although being capable to mark coordination, can not be located in a CoordP: in this projection, the first coordinated element is attached in the Spec, the second element is the complement and the coordinative word is the head of the constituent; therefore, if the clitic *δέ* needs his Spec position to be free in order to move there the first prosodic word on its right, as in (4), the Spec can not be occupied by the first

<sup>5</sup>The other positions in the SplitIP would be AgrSP, AdjP and AgrArgP.

<sup>6</sup>Beschi (2011, pp. 199-200)

coordinated element, thus  $\delta\acute{\epsilon}$  is not the head of a CoordP. If we observe that  $\delta\acute{\epsilon}$  can appear in the main clause as a discourse marker and also in correlation with a precedent  $\mu\acute{\epsilon}\nu$  to express a light or strong opposition between constituents in different clauses, we may conclude that it is more plausible for  $\delta\acute{\epsilon}$  to be merged in a Topic projection.

(6) ταῦτα μὲν... τἄλλα δέ...

tâuta            =mén ... t(á)=állá            =dé ...  
 these things Top°    the other things Top°

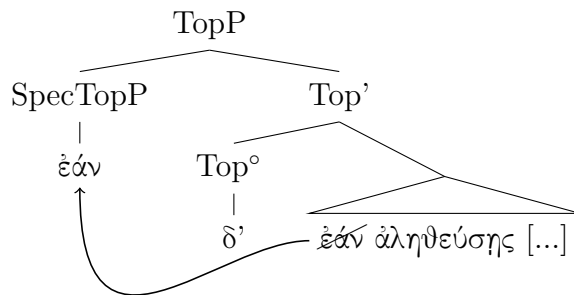
In §4 we will see that these markers are always located higher than  $\acute{\alpha}\nu$  in the structure: wherever the order  $\acute{\alpha}\nu$  -  $\delta\acute{\epsilon}$  is attested, it will be due to the coalescence of  $\acute{\alpha}\nu$  with the complementiser, forming a cluster which then has been moved to the Spec position of the Topic marker, as in (7):

(7) a. ἐὰν δ' ἀληθείης [...]

*Xen. An. 1, 7, 18*

e(i)=án    d(é)            alēthéusēs  
 COMP.AN TOP-MARK VERB

b.



This movement caused by clitics will account for certain distributions of  $\acute{\alpha}\nu$ , though probably it will not be necessary to assume that the same phenomenon is caused also by  $\acute{\alpha}\nu$  itself, which Beschi lists among the clitics without however explaining its behaviour.

## 3.2 Goldstein's work

### 3.2.1 The prosodic flip

David Goldstein has produced a lot of material over the years about Wackernagel's Law and the particle  $\acute{\alpha}\nu$ , starting from his Ph.D. dissertation "Wackernagel's Law in Fifth-Century Greek" (Goldstein, 2010): in this work he provides an analysis which is mainly of a prosodic nature, however taking into account syntactic phenomena too (he affirms that is impossible

to predict the distribution of clausal clitics without reference to both syntax and prosody and that the question is how the interaction between these domains works<sup>7</sup>).

At the beginning he states that the label “Wackernagel’s Law” is just an honorary designation for a generalization about the surface position of some enclitics and postpositives, and not a law in a prescriptive sense: it is then an epiphenomenon, under which various phenomena of different nature have been gathered<sup>8</sup>. For what concerns  $\check{\alpha}\nu$ , it is dubious even if it has anything to do with Wackernagel’s Law, since it is generated high in the structure (somewhere in TP) and its second-position behaviour may be due to different reasons than universal clause structure<sup>9</sup>.

The focal notion of Goldstein’s analysis is the prosodic flip. He presumes that clitics are base-generated in some part of the derivation and then move up to a higher position, specifically they adjoin to the left edge of TP; if no material occupies the CP, the clitic undergoes the process of prosodic flip, which means that it moves minimally (one prosodic word) to the right<sup>10</sup>.

To show that an account that is only syntax-dominated is not enough to explain the data, Goldstein makes three syntax-driven predictions and proceeds to prove them not borne out<sup>11</sup>.

- (8) a. Clitics will not appear above the CP in which they are base generated.

οὐκ  $\check{\alpha}\nu_i$  οἶδ’ [<sub>CP</sub> εἰ  $t_i$  δυναίμην ἅπαντα ἐν μνήμῃ πάλιν λαβεῖν]. *Plat. Tim. 26b*

uk=  $\acute{\alpha}\mathbf{n}_i$  oīd(a) [<sub>CP</sub> ei=  $t_i$  dynáimēn hápanta en=  
not AN see(=know).PF.1SG if can.OPT.1SG all.ACC.N.PL in  
mnēmē pálin labêin ]  
memory.DAT again take.AOR.INF

‘I don’t know if I could retain everything in memory again.’

- b. Clitics appear no more than one prosodic word from the left edge of TP.

ὅταν δ’ ἴκηται, [<sub>TP</sub> τηνικαῦτ’ ἐγὼ κακὸς μὴ δρῶν  $\check{\alpha}\nu$  εἶην πάνθ’ ὅσ’ ἄν δηλοῖ θεός].

*Soph. OT 76-77*

hót=an =d(’e) híkētai [<sub>TP</sub> tēnikâut(a) egō kakós mē  
when.AN and arrive.3SG.MID then I.NOM bad.NOM.N.SG not  
drôn = $\acute{\alpha}\mathbf{n}$  éiēn pánth(a) ós(a) = $\acute{\alpha}\mathbf{n}$   
do.PTCP.NOM.N.SG AN be.OPT.1SG all.ACC.N.PL REL.INDEF.ACC.N.PL AN

<sup>7</sup>Goldstein (2010, p. 8)

<sup>8</sup>Goldstein (2010, p. 2)

<sup>9</sup>Goldstein (2010, p. 25)

<sup>10</sup>Goldstein (2010, pp. 24-25). For a brief exposition of different explanations of the prosodic flip see Goldstein (2010, pp. 25-36).

<sup>11</sup>Goldstein (2010, pp. 88-92)

dēlōi                      theós     ]  
 indicate.OPT.3SG god.NOM

‘When he gets here, I would be remiss if I didn’t do whatever the god indicates.’

- c. In the presence of any material to the left of TP, prosodic flip should not occur.

[<sub>CP</sub> ἦν μὲν δὴ [<sub>FocP</sub> τὸ χρηστήριον [<sub>TP</sub> (\*μῖν) ἀνέλῃ μῖν βασιλέα εἶναι...]]].     *Her. I, 13, 5*

[<sub>CP</sub> ēn     =mén =dē [<sub>FocP</sub> tó                      khrestērion [<sub>TP</sub> (\*=min)  
           if.AN PTC    then            the.NOM.N.SG oracle.NOM            (\*him.ACC.M)  
 anélē                      =min            basiléa    êinai    ]]]  
 choose.AOR.SUBJ.3SG him.ACC.M king.ACC be.INF

‘If the oracle appoints him to be king...’

While his idea of Wackernagel’s Law as an epiphenomenon has certainly its validity, Goldstein himself later will reject his prosodic flip account, as we will see in §3.2.3.

### 3.2.2 Multiple-ἄν constructions

Three years later, Goldstein published the paper “Iterated Modal Marking and Polarity Focus in Ancient Greek” (Goldstein, 2013), in which he analyses the cases (in the Greek of the V century BCE) in which ἄν appears twice in a sentence. After a rough definition of ἄν as a particle that encodes modal and irrealis semantics, he states that multiple-ἄν focuses the polarity of the clause<sup>12</sup>.

- (9) πῶς ἄν τό γ’ ἄκον πράγμα’ ἄν εἰκότως ψέγοις;                      *Soph. OC 976*

pōs =án tó                      =g(e) âkon                      prâgm(a) =án eikótōs  
 how AN the.ACC.N.SG PTC unwitting.ACC.N.SG deed.ACC AN legitimately  
 pségois  
 blame.OPT.2SG

‘How could you legitimately blame the unwitting deed?’

(The interpretation would be something like: “Of all deeds, you could **not** blame the unwitting one.”)

Polarity focus is a construction in which the scope of the focus is restricted to the polarity of the clause, that is the truth value of the clause<sup>13</sup>. Multiple-ἄν being a polarity focus brings Goldstein to two predictions<sup>14</sup>:

<sup>12</sup>Goldstein (2013, pp. 354-355)

<sup>13</sup>Goldstein (2013, p. 359)

<sup>14</sup>Goldstein (2013, pp. 360)

- (10) a. *assertion prediction* - multiple-ἄν must occur in assertive utterances; it should not occur in adjunct clauses, as they typically contribute background information;  
 b. *focus-restriction prediction* - multiple-ἄν should exclude any other element from being focused; this means that focusing particles and word-order constructions should be in complementary distribution with multiple-ἄν .

These predictions are borne out by Goldstein's data.

However, this analysis can be extended also to other sentences with only one occurrence of ἄν, since it is frequent to find it attached to negation:

- (11) ἐγὼ σοί οὐκ ἄν δυναίμην ἀντιλέγειν. Plat. Symp. 201c  
 egō sói uk= án dynáimēn antilégein  
 I you.DAT.SG not AN can.OPT.1SG.MID contradict.INF  
 'I could not contradict you.'

This construction sometimes may also appear in adjunct sentences, unlike what Goldstein has claimed for multiple-ἄν polarity focus:

- (12) μηδὲν λέγε πρὸς ταῦτα, ὡς ἐγὼ οὐδ' ἄν ἕνα ἄλλον ἐπαινέσαιμι σοῦ παρόντος. Plat. Symp. 214d  
 mēdén lége prós tâuta hōs= egō ud(é)= án  
 nothing.ACC.N.SG say.IMP.2SG against this.ACC.N.PL for I not AN  
 héna állon epainésaimi sū  
 one.ACC.M.SG other.ACC.M.SG praise.AOR.OPT.1SG you.GEN.SG  
 paróntos  
 be.present.PTCP.GEN.M.SG  
 'Don't answer back, for I could not praise anyone else with you here.'

This role that ἄν plays in the left periphery is worth remembering for the subsequent analysis.

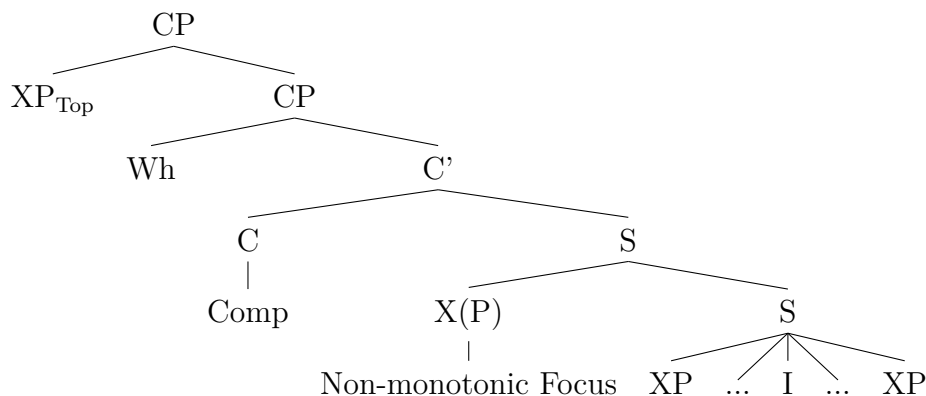
### 3.2.3 Phonological word clitics

A recollection, enlargement and revision of Goldstein's theories can be found in his book "Classical Greek Syntax" (Goldstein, 2016).

One of the chapters is entirely dedicated to the clause structure in AG (in particular Herodotus's), in which, according to him the, VP is missing<sup>15</sup>:

<sup>15</sup>Goldstein (2016, pp. 17-26). The evidence for this claim is that the language has no expression to refer to a verb plus its internal argument, that it lacks superiority effects in constituent questions and that analogously reflexive pronouns may appear before their antecedent.

(13)



Goldstein’s argument is that second-position clitics show a split in the clause between the S node and the preposed topic and non-monotonic focus projections: clausal clitics are generally hosted by the first prosodic word of the highest occupied projection. Therefore, the host of a clausal clitic will never precede an interrogative pronoun and when in presence of a proposed phrase (a topic or a non-monotonic focus), a clausal clitic will be hosted by the first prosodic word in S (since its movement will be blocked by these elements). This notion of clitic host is a different analysis from that in Goldstein (2010) and needs not to involve a discussion about the process of prosodic flip.

However, Goldstein’s general structure of the clause in AG presents numerous problems. Aside from ignoring the split-CP theory by Rizzi (1997), there are three primary issues with this tree. The first one is that it does not respect the binary branching requirement, which is widely accepted since Kayne (1983). The second issue is that without the VP there cannot be attribution of  $\theta$ -roles by the verb to the arguments, as well as case attribution<sup>16</sup>. The third issue involves the ordering of constituents. Considering the theories about the Antisymmetry of Syntax in Kayne (1994), any phrase structure, in which the main relationship between elements is that of the *c*-command ( $xCy$  will stand for “*x c-commands y*”), determines a linear order with the following properties: transitivity ( $xCy \wedge yCz \rightarrow xCz$ ), totality ( $\forall x, y, xCy \vee yCx$ ) and antisymmetry ( $\neg(xCy \wedge yCx)$ )<sup>17</sup>. Since no *c*-command relation can be established among the XPs and the I under the last S node, the totality requirement is not met, therefore it would be impossible to determine a linear order for any sentence in AG.

Apart from the clause structure, he claims, as he had already in Goldstein (2010), that a discussion about clitics can not do without either the prosodic or the syntactic domain. In the chapter about prosody, Goldstein starts by stating the prosodic hierarchy<sup>18</sup>:

<sup>16</sup>Kayne (1983, p. 11)

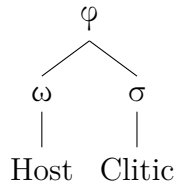
<sup>17</sup>Kayne (1994, pp. 3-6)

<sup>18</sup>Goldstein (2016, p. 45)

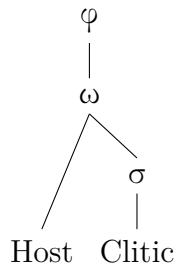
- (14) Utterance ( $\upsilon$ ) > Intonational Phrase ( $\iota$ ) > Phonological Phrase ( $\varphi$ ) > Prosodic Word ( $\omega$ ) > Foot ( $\Sigma$ ) > Syllable ( $\sigma$ ) > Mora ( $\mu$ )

Clitics are prosodically-deficient non-constituents and, since all phonological material that is pronounced is integrated into the prosodic structure, they must be incorporated into a phonological phrase following one of these possible strategies:

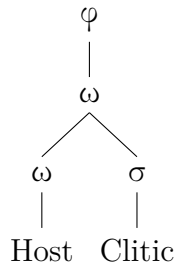
- (15) a. *Free Clitic ( $\varphi$ -incorporation)*



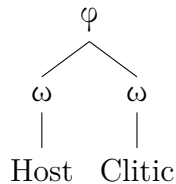
- b. *Internal Clitic ( $\omega$ -incorporation)*



- c. *Affixal Clitic ( $\omega$ -adjunction)*



- d. *Pword Clitic*



In (15a) the incorporation does not interact with stress assignment; in (15b) the stress is calculated over both items; in (15c) the adjunction triggers a recursion which can result in a secondary stress; the case in (15d) seems to contradict clitic definition, though cases are

observable in AG<sup>19</sup>.

In AG enclitics (personal pronouns, γε, τε, υν etc.) follow the strategy of word adjunction (15c), while postpositives (μέν, δέ, γάρ, ἄν etc.) that of phonological words (15d): the last type probably went under grammaticalization and reduction to cliticness more recently, therefore preserving some word-like properties such as the tone<sup>20</sup>.

In the chapter about the syntax of clitics, Goldstein mentions the uncertainty about their categorial status: they seem to occupy head positions in the structure, but they violate the head movement constraint, behaving like phrases<sup>21</sup>. The clitic lexicon of AG can be organized into three clusters, determined by the semantic scope: sentential (μέν, δέ, γάρ), clausal (ἄν, ἄρα) and phrasal (τε, γε)<sup>22</sup>.

Clausal clitics realize grammatical features of the clause itself<sup>23</sup>: in particular, ἄν manifests a twofold distribution, according to its functions as a domain-widener or as a modal quantifier<sup>24</sup>. Domain-widening is the ability to maximize the domain of reference: in this case the scope of ἄν is restricted to its host, a relative pronoun or a complementiser. The combination host+ἄν is not formed in the lexicon since it is possible for discourse markers to intervene between them<sup>25</sup>.

(16) ἦ δὲ ἄν τὰ πλεῖστα ἔζη, αὕτη ἀρίστη. *Her. 1, 32, 8*

hē	=dé =án tá	plēista	éxē
REL.NOM.F.SG and AN	the.ACC.N.PL	most.ACC.N.PL	have.AOR.SUBJ.3SG
háutē	arístē		
that.NOM.F.SG	best.NOM.F.SG		

‘Whichever has the most is the best.’

When ἄν functions as a modal quantifier, it scopes over the entire clause. In embedded clauses ἄν is hosted by the first word of its clause after any complementiser<sup>26</sup>.

(17) εἶρετο αὐτὸν ὁ ἀδελφεὸς Ἀρτάβανος ὃ τι βούλοιτ’ ἄν οἱ γενέσθαι. *Her. 4, 143, 2*

<sup>19</sup>Goldstein (2016, pp. 47-48)

<sup>20</sup>Goldstein (2016, pp. 50-51)

<sup>21</sup>Goldstein (2016, p. 85)

<sup>22</sup>Goldstein (2016, pp. 86-87)

<sup>23</sup>Goldstein (2016, pp. 87-88)

<sup>24</sup>Goldstein (2016, p. 92). These functions are the same already known to traditional studies, the former being that in subordinate clauses with the subjunctive and the latter being that with the optative and the past indicative.

<sup>25</sup>Goldstein (2016, p. 93)

<sup>26</sup>Goldstein (2016, p. 93-94)



éireto autón ho= adelpheós Artábanos  
 ask.IMPF.3SG.MID him.ACC.M.SG the.NOM.N.SG brother.NOM Artabanus.NOM  
 hó =ti búloit(o) =án =oi  
 REL.ACC.N.SG INDEF.ACC.N.SG want.OPT.3SG.MID AN him.DAT.M.SG  
 genésthai  
 be.AOR.INF.MID

‘His brother Artabanus asked him what he would like to have.’

When the complementiser is a phrase ἄν can be hosted far into the clause<sup>27</sup>.

- (18) Τιμησίθεον τὸν Δελφόν, τοῦ ἔργα χειρῶν τε καὶ λήματος ἔχοιμι ἄν μέγιστα καταλέξαι.  
*Her. 5, 72, 4*

Timēsíttheon tón Delphón tû érga  
 Timesitheus.ACC the.ACC.M.SG Delphian.ACC.M.SG REL.GEN.M.SG feat.ACC.PL  
 kheirôn =te kái lēmatos ékhoim(i) =án mégista  
 strength.GEN.PL and and courage.GEN have(=can).OPT.1SG AN great.ACC.N.PL  
 kataléxai  
 list.AOR.INF

‘Timesitheus the Delphian, whose extraordinary feats of strength and courage I could list in detail.’

Reviewing these last statements, we could say that the two functions of ἄν that Goldstein identifies, as a domain-widener or as a modal marker, if looked further into, result to be the same: if domain widening is the ability to maximize the domain of reference, this expansion can be interpreted as that from the context world to all possible worlds (as will be discussed further in §3.3.1); meanwhile, “modal quantifier” is the same as modal operator, since  $\diamond$  and  $\square$  (the possibility and necessity modal operators) can be defined via quantification over worlds ( $\exists w$  for possibility and  $\forall w$  for necessity). Therefore, both these functions can be linked to the possibility operator  $\diamond$ .

About the claim that the combination host+ἄν is not formed in the lexicon since it is possible for discourse markers to intervene between them, while this happens for most of the hosts, as in (19), there are also frequent cases in which the discourse markers cannot intervene, precisely when ἄν coalesces with its host, which is in these cases always a complementiser, as seen in (20).

- (19) ὥς δ' ἄν μάθης [...] *Xen. An. 2, 5, 16*

hōs d(é) án máthēs  
 HOST DISC-MARK AN VERB

<sup>27</sup>Goldstein (2016, p. 95-96)

- (20) a. εἰ δ' ἀληθείης [...] *Xen. An. 1, 7, 18*  
 eán d(é) alēthéusēs  
 HOST.AN DISC-MARK VERB  
 \*εἰ δ' ἄν ἀληθείης [...]
- b. ἐπειδὴν δὲ ἀνδρωθῶσι *Plat. Symp. 192a*  
 epeidán dé andrōthōsi  
 HOST.AN DISC-MARK VERB  
 \*επειδὴ δ' ἄν ἀνδρωθῶσι
- c. ὅταν δέ ὁ μετὰ τῆς ὕβρεως Ἔρωσ [...] *Plat. Symp. 188a*  
 hótan dé ho metá tēs hýbreōs Érōs  
 HOST.AN DISC-MARK SUBJ  
 \*ὅτε δ' ἄν ὁ μετὰ τῆς ὕβρεως Ἔρωσ

Therefore, if it is safe to conclude that sometimes the combination host+ἄν is lexicalized, this has to be kept in consideration in the attempt to locate the exact position of ἄν in the structure, later in this work.

Also, neither the claim that ἄν is hosted by the first word of its clause after any complementiser when it functions as a modal quantifier in embedded clauses appears to hold in the data:

- (21) εὖ γὰρ ἴστε ὅτι τὴν ἐλευθερίαν ἐλοίμην ἄν ἀντὶ ὧν [...] *Xen. An. 1, 7, 3*  
 êu gár íste hóti tēn eleutherían helóimēn =án antí hōn  
 MATRIX COMP TOPIC VERB AN REL

Though Goldstein states that it can be located deep into the sentence when the complementiser is a phrase, it is unclear what he means with this condition: he is probably referring to topicalised items. However, this should not interfere with his original claim: either ἄν would be hosted by the first word after the complementiser or by the first word after the complementiser and the topic phrase, which would be more coherent and precise than the expression “deep into the sentence”.

Goldstein’s insights over the prosody of clitics are not going to be a fundamental part of this work, though it might be useful to keep in mind the behaviour of ἄν in any linguistic domain; on the other hand, his syntactic analysis, especially that about polarity focus, will be brought up again later.

### 3.3 Beck, Malamud and Osadcha's analysis

#### 3.3.1 Semantics of $\check{\nu}$

As for prosody, it is useful to also look into the semantics of  $\check{\nu}$ : this is what Jana Beck, Sophia Malamud and Iryna Osadcha do in their paper “A Semantics for the Particle  $\check{\nu}$  in and outside Conditionals in Classical Greek” (Beck, Malamud, and Osadcha, 2012). Their proposal is that  $\check{\nu}$  represents a modal quantifier ranging over situations:

- (22) the conditional is true of an actual-world situation  $s$  if and only if, whenever the antecedent is true in a situation  $s'$ , the consequent is true in a situation  $s''$  which extends  $s'$ .

$$[[\check{\nu}]]^{g,w} = \lambda p_{\langle st \rangle} . \lambda q_{\langle st \rangle} . \lambda s \leq w [(\forall s' \in M : p(s') = 1) \exists s'' [s' \leq s'' \wedge q(s'') = 1]]$$

The nature of the set  $M$  determines the interpretation of  $\check{\nu}$ : if it contains only maximal situations (worlds) the modal uses arise; if it contains only subsituations of the actual world the iterative uses arise<sup>28</sup>.

The authors also try to justify the presence of past morphology in counterfactuals postulating that the past tense morpheme is actually an ‘exclusion’ morpheme: when interpreted temporally it indicates that the topic time precedes the utterance time; when interpreted modally it indicates that the topic world does not include the actual world<sup>29</sup>.

We now want to extend this analysis also to any clause modified by the presence of  $\check{\nu}$ , which generally provides a potential force<sup>30</sup>. In sentential logic we could say that:

- (23) the sentence is true of an actual-world situation  $s$  if and only if this sentence is true in a situation  $s'$ .

$$[[\check{\nu}]]^{g,w} = \lambda p_{\langle st \rangle} . \lambda s \leq w [\exists s' \in M : p(s') = 1]$$

Another possibility is to move this analysis from situational logic to the domain of possible worlds:

- (24) the sentence is true in the context world  $w$  if and only if this sentence is true in a world  $w'$ .

$$[[\check{\nu}]]^{g,c} = \lambda p_{\langle wt \rangle} . \lambda w_c [\exists w' \in M : p(w') = 1]$$

According to this last analysis,  $\check{\nu}$  behaves like a modal operator of possibility ( $\diamond$ ), which is completely coherent to its use:

<sup>28</sup>Beck, Malamud, and Osadcha (2012, p. 67)

<sup>29</sup>Beck, Malamud, and Osadcha (2012, p. 65). The authors follow Sabine Iatridou's proposal in “The Grammatical Ingredients of Counterfactuality” (2000, *Linguistic Inquiry* 31:231-270).

<sup>30</sup>As many traditional studies pointed out, see §1.

(25) οἷοιτ' ἄν τις ἐκ λογισμοῦ ταῦτα ποιεῖν.

*Plat. Symp. 207b*

óioit(o)                    =án =tis                    ek=    logismû    tâuta                    poiêin.  
say.OPT.3.SG.MID AN    INDEF.NOM.M.SG out.of reason.GEN this.ACC.N.PL do.INF

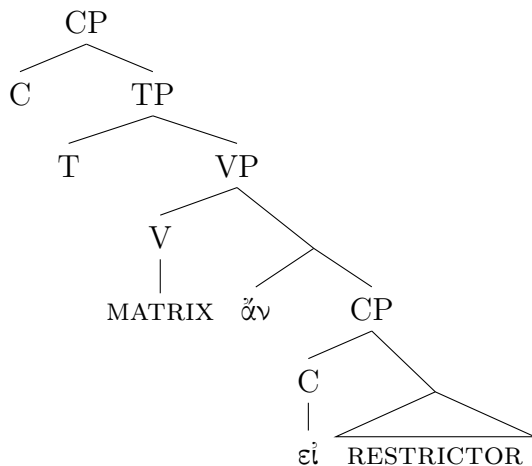
‘One could say that they do these things out of reason.’

Following the classification in Palmer (1986), it is safe to assume that ἄν expresses epistemic modality (which concerns the speaker’s attitude towards the sentence), more precisely speculative (which indicates uncertainty and expresses a possible conclusion)<sup>31</sup>. Therefore, as Palmer states as well, reinterpreting these categories with those of logical possibility and necessity, speculative modality corresponds to epistemic possibility, in line with the previous semantic analyses<sup>32</sup>.

### 3.3.2 Syntax of ἄν

After this semantic portion, they focus briefly on the syntax of ἄν. In order for semantics and syntax to match up well, they state that in conditionals ἄν must c-command its restrictor, the antecedent clause, though in some cases it is located within the antecedent: they argue that this is due to a displacement process.

(26)



Generally ἄν appears second, second to last or last in the IP domain, suggesting a position at the edge of IP and that it is linearized either on the right or the left (a dislocation process in PF). Also, the antecedent usually moves to precede the consequent<sup>33</sup>. The presence of

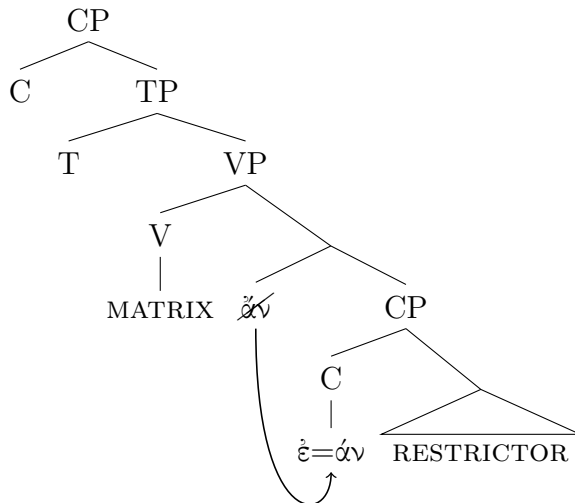
<sup>31</sup>Palmer (1986, pp 24-25)

<sup>32</sup>Palmer (1986, p. 89)

<sup>33</sup>Beck, Malamud, and Osadcha (2012, pp. 67-68)

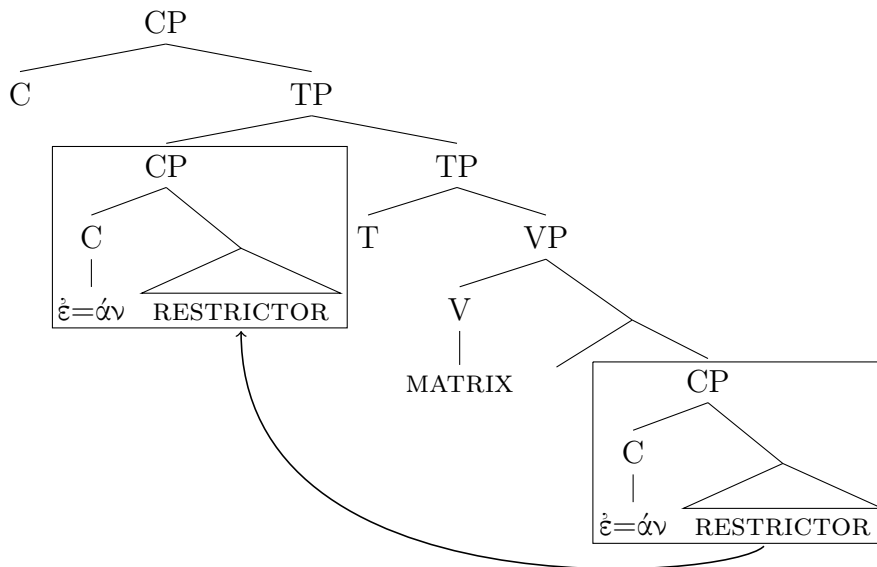
$\check{\alpha}\nu$  in the antecedent can be derived with the process of dislocation happening before the fronting of the antecedent; therefore, from a situation as in (26)<sup>34</sup>:

(27)



Again, the antecedent is usually fronted as an adjunct to TP, though  $\check{\alpha}\nu$  is now inseparable from the complementiser, therefore<sup>35</sup>:

(28)



As their semantic analysis, also this is limited only to conditionals: though these are one of the principal contexts in which  $\check{\alpha}\nu$  is found, we cannot ignore all other possible uses.

<sup>34</sup>Beck, Malamud, and Osadcha (2012, p. 71)

<sup>35</sup>Beck, Malamud, and Osadcha (2012, p. 72)

Therefore, if a merge position is to be identified, it will be necessary to look at the general semantics of the particle.

There are also other issues that arise from their proposal. First of all, if a cartographic approach is to be adopted,  $\check{\nu}$  cannot be located after VP in an unlabelled projection: we could speculate that they intended it to be a Small Clause, though this would not resolve all the problems, as the authors do not seem interested in using the X' module to formulate their theory. The second issue is that it is preferable to justify the different positions and movements of  $\check{\nu}$  without involving dislocation at PF, but rather operating within the syntactic domain: this will allow to provide a more general and thorough description and explanation of the data.

Lastly there is the issue about subjunctive conditionals: there are three reasons not to adopt their derivation. The first one is the downward movement of  $\check{\nu}$  to a c-commanded head position already occupied by the complementiser: aside from the fact that the merge position will later on be identified as another one, higher than VP, dislocation in PF, as already mentioned, will not be considered as a valid derivation, therefore a syntactic explanation cannot accept a movement towards a lower head already hosting another element. The second reason is that the authors do not explain why this always happens with subjunctive conditionals and never with other conditionals. The third is that the mandatory second position of  $\check{\nu}$  in subjunctive clauses is not limited to conditionals, as the data in §2.2 showed, though the authors do not link their analysis to other clause types.

This distribution of  $\check{\nu}$  will then be explained differently in chapter §4.

# Chapter 4

## Analysis

This chapter is organised as follows: section §4.1 deals with the location of *žv* within the functional field and in the left periphery; section §4.2 goes over some phenomena about feature transfer and agreement; section §4.3 tries to answer to the fundamental research question about subjunctive subordinate clauses with *žv*, while also accounting for other types of construction and for the consequences of what will be claimed.

### 4.1 Position in the structure

#### 4.1.1 In the functional field

In §3.2 we have seen that certain enclitics as *žv* probably underwent grammaticalization and reduction to clitic hood at some point during the evolution of AG (preserving also the status of phonological word)<sup>1</sup>. Furthermore, in §3.3.1 it has been established that *žv* expresses epistemic possibility, according to Palmer's categories. We can thus conclude that *žv* functions as a modal adverb entering the structure in a functional projection in the IP.

The hierarchy of functional projections has been first established in Cinque (1999)<sup>2</sup>:

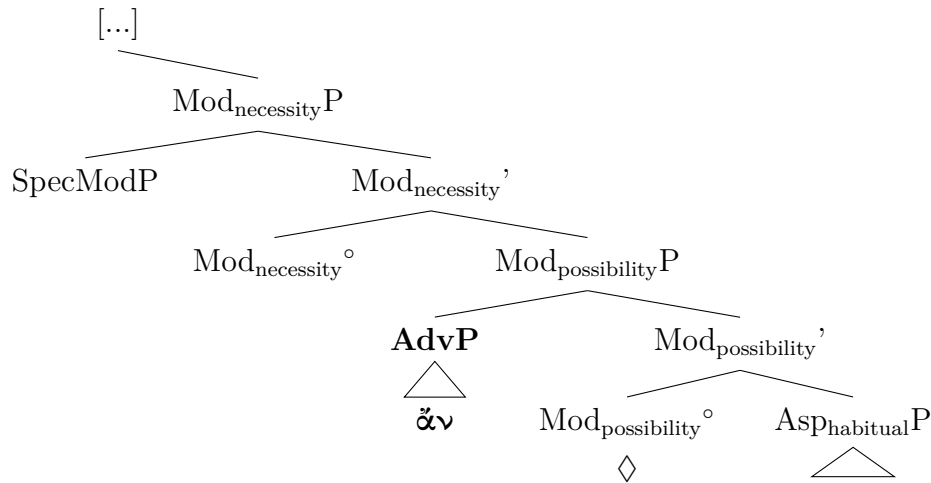
- (1) Mood<sub>speech act</sub> > Mood<sub>evaluative</sub> > Mood<sub>evidential</sub> > Mod<sub>epistemic</sub> > T<sub>past</sub> > T<sub>future</sub> > Mood<sub>irrealis</sub> > Mod<sub>necessity</sub> > Mod<sub>possibility</sub> > Asp<sub>habitual</sub> > Asp<sub>repetitive(I)</sub> > Asp<sub>frequentative (I)</sub> > Mod<sub>volitional</sub> > Asp<sub>celerative (I)</sub> > T<sub>anterior</sub> > Asp<sub>terminative</sub> > Asp<sub>continuative</sub> > Asp<sub>perfect</sub> > Asp<sub>retrospective</sub> > Asp<sub>proximative</sub> > Asp<sub>durative</sub> > Asp<sub>generic/progressive</sub> > Asp<sub>prospective</sub> > Asp<sub>singular completive (I)</sub> > Asp<sub>plural completive</sub> > Voice > Asp<sub>celerative (II)</sub> > Asp<sub>repetitive (II)</sub> > Asp<sub>frequentative (II)</sub> > Asp<sub>singular completive (II)</sub>

<sup>1</sup>Goldstein (2016, pp. 50-51)

<sup>2</sup>Cinque (1999, p. 106)

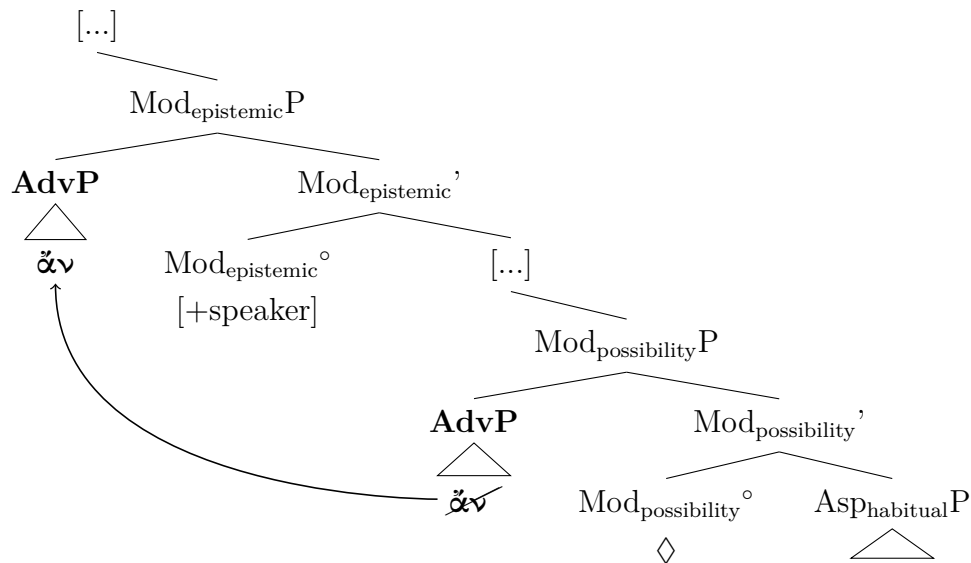
Following this approach, modal adverbs are merged in the Spec of a modal projection: we will claim therefore that  $\check{\alpha}\nu$  enters the structure in  $\text{SpecMod}_{\text{possibility}}\text{P}$ , the projection for alethic modality, according to its function as a modal quantifier of possibility.

(2)



After being merged, if  $\check{\alpha}\nu$  carries a [+speaker] feature, it may move to the Spec of the  $\text{Mod}_{\text{epistemic}}\text{P}$  projection:

(3)



We claim that the Spec in  $\text{Mod}_{\text{epistemic}}$  is not a second merge position, but rather a landing site from the lower Spec: the difference between epistemic modality and alethic modality is that the former expresses a judgement of the speaker on some possible truth<sup>3</sup>,

<sup>3</sup>Cinque (1999, pp. 78-81)



which presupposes indeed the reference to a possible truth, expressed through the alethic possibility projection; therefore also in these cases ἄν needs to be merged lower to check the feature  $\diamond$ .

If we were to follow Palmer’s categorization, without distinguishing between epistemic and alethic modality<sup>4</sup>, we could be lead to think that ἄν simply indicates epistemic modality, as seen in (4), where we notice the presence of the speaker’s opinions and deductions:

(4) οἷοιτ’ ἄν τις ἐκ λογισμοῦ ταῦτα ποιεῖν. *Plat. Symp. 207b*

oioit(o) =án =tis ek= logismû tâuta poiêin.  
say.OPT.3.SG.MID AN INDEF.NOM.M.SG out.of reason.GEN this.ACC.N.PL do.INF

‘One could say that they do these things out of reason.’

Although, Cinque notes that epistemic modality feels uncomfortable in questions<sup>5</sup>, while there seems to be no objection to the use of ἄν in these environments:

(5) τί οὖν ἄν εἴη ὁ Ἔρως; *Plat. Symp. 202d*

tí =ûn =án éiē ho= Érōs  
what then AN be.OPT.3SG the.NOM.M.SG Love.NOM

“What then might be Love?”

These occurrences prove that ἄν can represent both epistemic and alethic possibility, therefore we can conclude that it is merged in the Spec of the Mod<sub>possibility</sub> projection and then eventually moved to the Spec of the Mod<sub>epistemic</sub> projection.

Cinque derives his hierarchy and, consequently, the order of the adverbs by judging the grammaticality of sentences which present adverbs from different categories in various orders. A solid method to check the category to which an adverb belongs is to compare its position to other known adverbs. Unfortunately, it was not possible, searching the corpus for this work, to exploit this method: sentences with multiple adverbs are not common in AG, due to its richness of modal and aspectual verbs<sup>6</sup>; also, many elements, including adverbs, in the AG sentence structure are subjected to fronting and other movements, as in (6), where the adverbs are expected to appear in the reverse order:

<sup>4</sup>Palmer (1986, p. 11)

<sup>5</sup>Cinque (1999, p. 86)

<sup>6</sup>Then one could argue that the same method can apply with verbs; however, verbs are more susceptible to movement and can be raised far higher than their functional projection they occupy, therefore this kind of analysis would have to be extremely careful.

(6) πάνυ γάρ εὐθὺς ἐπαύσατο.

*Plat. Symp. 189a*

pány =gár eythýs epáusato  
*completive* PARTICLE *proximative* VERB

“It has immediately completely ceased.”

The only observation we are able to make is that ἄν may co-occur with the adverbs ἴσως and τάχα, both of which mean “perhaps”; therefore, according to Cinque’s analysis, they belong to the adverbs of Mood<sub>irrealis</sub>P<sup>7</sup>, providing evidence at least that ἄν does not belong to this category.

(7) ἴσως ἄν τὰ ἱερὰ προχωροίη ἡμῖν.

*Xen. An. 6, IV, 21*

ísōs =án tá= hierá prokhōróiē hēmîn  
 perhaps AN the.NOM.N.PL victim.NOM.PL assist.OPT.3SG(=PL) us.DAT

“Maybe the victims would assist us.”

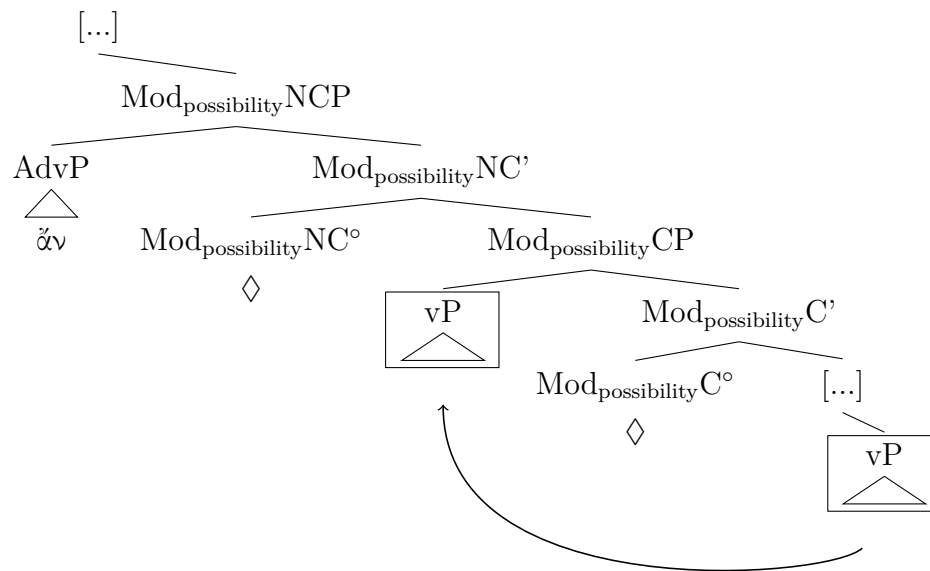
In a recent paper, Cinque has extended the width of the functional field, claiming that to every projection he had previously identified correspond in fact two functional projections, a core one (C), which is lower and hosts modal verbs, and a non-core one (NC), which is higher and hosts adverbs; these two projections are actually separated by a projection hosting a silent head and moved constituents in the Spec, though this will not concern our work<sup>8</sup>. The adverbs are still merged in the Spec position, now of the non-core projection; as for the verbs, at the light of new theories about the presence of unpronounced material in the head of most or all projections (Kayne, 2016), Cinque would state that they are moved as phrasal elements to the Spec position of the core projection, while the head of the possibility projection hosts a silent modal verb, in our case MAY<sup>9</sup>. We will represent these unpronounced elements in Mod<sub>possibility</sub><sup>o</sup> as the modal operator  $\diamond$ .

<sup>7</sup>Cinque (1999, p. 88)

<sup>8</sup>Cinque (2017, p. 522)

<sup>9</sup>Cinque (2017, pp. 523-526)

(8)



### 4.1.2 In the left periphery

While Goldstein (2013) states that in multiple-*žv* constructions the first token marks polarity focus, we claimed in §3.2 that this can be extended also to sentences with only one occurrence of *žv*. However, Goldstein never explains where exactly *žv* is located, though it is clear from these cases and those found in the corpus with the subjunctive mood (where *žv* is always located right after the complementiser) that it plays an important role in the left periphery of AG.

We will claim that the landing site for *žv* in the left periphery is FinP, which bears a set of features related to the inflection of the verb, among which there is also the feature [realis]; the apparent use of *žv* as a polarity focus is the result of the focalisation of a negative element which first raises to a Polarity projection in the left periphery to scope over the modal element.

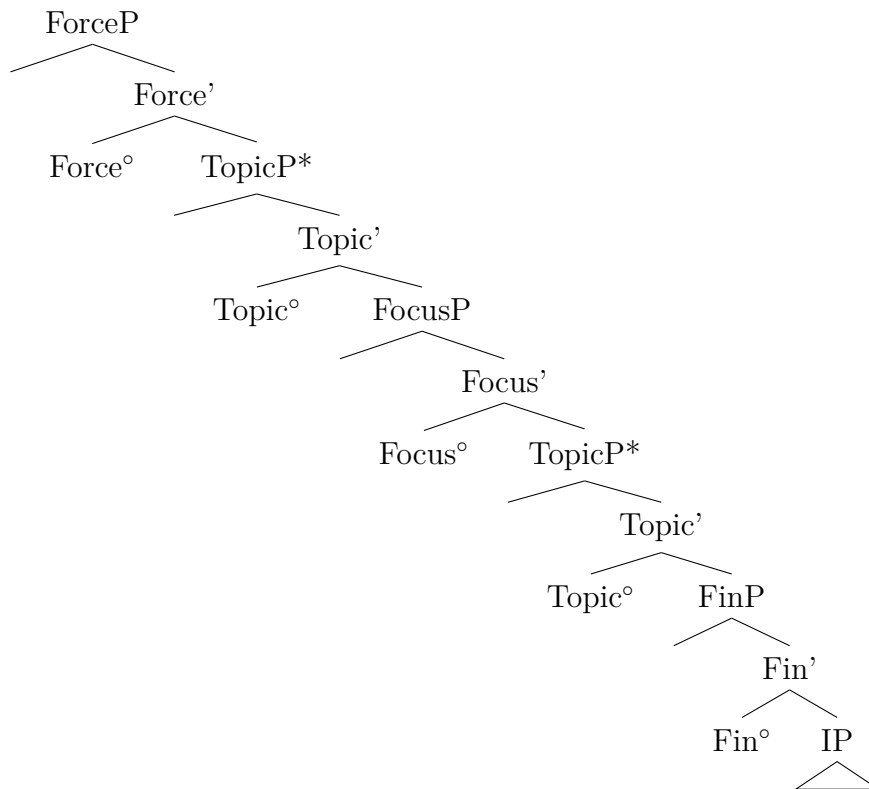
(9) ForceP > TopP > FocP > PolP > FinP > IP

### The Finiteness Projection

First, we must clarify the link between FinP, the feature [realis] and *žv*.

In Rizzi (1997) the left periphery of any language is presented like this:

(10)



In his analysis the root node is ForceP, bearing the force of the clause or, in case of subordinates, usually the complementiser; higher and lower TopicP are the landing sites for left dislocations (the asterisk indicates that this projection is recursive); the FocusP marks the focused element in the sentence; other complementisers in FinP are found correlated to certain moods<sup>10</sup>.

Subsequently, Benincà (2001)<sup>11</sup> and Benincà and Poletto (2004)<sup>12</sup> claimed that there is no TopicP lower than Focus; this is the account we will adopt here, hence the left periphery will be like in (11):

(11) ForceP > TopicP\* > FocusP > FinP > IP

Rizzi assumes that the C system expresses a specification of finiteness that selects an IP system according to its own characteristics of finiteness: among these are mood distinctions<sup>13</sup>. Therefore, the lowest C-projection FinP (which in fact selects the IP) bears a set of features that determine the inflection of the verb, among which is the feature related to mood, that is

<sup>10</sup>Obviously this is only a simplified account of Rizzi's theories. See Rizzi (1997).

<sup>11</sup>Benincà (2001, pp. 55-57)

<sup>12</sup>Benincà and Poletto (2004, pp. 63-66)

<sup>13</sup>Rizzi (1997, p. 284)

[realis]; this is stated also by Giorgi and Pianesi (1997), which propose that the feature mood is found in a low head within CP<sup>14</sup>. In fact, according to Rizzi, modal complementisers are merged right in FinP, while declarative complementisers are merged in the highest head of CP, that is Force<sup>15</sup>.

The feature [realis] has to do with the truth value of the sentence, not inasmuch as being true or false, rather than expressing if a situation is actualized, as having occurred or actually occurring, or is within the realm of thought, knowable through imagination<sup>16</sup>. This distinction in many languages is realized in the morphology of the verb through the indicative/subjunctive mood system (the former expressing [+realis], the latter [-realis]).

The presence of this feature in FinP has been held responsible for some mood related phenomena, such as Complementiser Deletion in Italian: according to some analyses the absence of the modal complementiser in FinP licences the rise of the verb in the subjunctive mood to this projection, which has to check the [-realis] feature located in FinP, again providing evidence for the presence of this feature in Fin<sup>17</sup>.

We have seen above that  $\check{\nu}$  bears the feature  $\diamond$  and is merged accordingly within the IP functional field; however, the semantics of  $\check{\nu}$  does not exclude the possibility to express a [-realis] feature; in fact, it presupposes it. If  $\check{\nu}$  functions as a modal operator of possibility, the context is not that of the actual world rather than any possible world: therefore, it does not refer to an actual situation (*realis*), but to the realm of thought knowable through imagination (*non-realis*), according to the definition in Palmer (1986). This means that the possibility to check a [-realis] feature is encoded in the semantics of  $\check{\nu}$ .

Cinque claims that the default value for this feature is [+realis], while the marked value is [-realis]<sup>18</sup>; this is clearly observable in languages like Latin and AG, where the [-realis] value is expressed by subjunctive morphemes, while the indicative mood is expressed through a null morpheme<sup>19</sup>. He also identifies a projection in his hierarchy, which he calls Mood<sub>irrealis</sub>, to host this feature; he links to this position the adverb “perhaps” and locates it below T(Past) and T(Future), right above Mod<sub>necessity</sub> and Mod<sub>possibility</sub><sup>20</sup>.

<sup>14</sup>Giorgi and Pianesi (1997, p. 239)

<sup>15</sup>Rizzi (1997, pp. 284-285)

<sup>16</sup>Palmer (1986, p. 1)

<sup>17</sup>Poletto (2001, pp. 278-279)

<sup>18</sup>Cinque (1999, p. 129)

Latin:	monetheme	-	$\emptyset_{\text{ind}}$	-	S <sub>person</sub>	>	<i>mones</i>	<<you warn>>
19	monetheme	-	a <sub>subjunctive</sub>	-	S <sub>person</sub>	>	<i>moneas</i>	<<you warn.SUBJ>>
AG:	$\tau\theta\eta$ <sub>theme</sub>	-	$\emptyset_{\text{ind}}$	-	$\sigma$ <sub>person</sub>	>	$\tau\acute{\iota}\theta\eta\sigma\iota$	<<you put>>
	$\tau\theta\eta$ <sub>theme</sub>	-	$\eta$ <sub>subjunctive</sub>	-	$\iota\zeta$ <sub>person</sub>	>	$\tau\iota\theta\check{\eta}\zeta$	<<you put.SUBJ>>

<sup>20</sup>Cinque (1999, p. 106)

Therefore, this feature can be located in two different projections in the structure: one in the CP, FinP, and one in the IP, Mood<sub>irrealis</sub>. The interaction between these two positions has been studied by Damonte (2010) in relation to the modal complementisers system and the subjunctive mood in some Southern Italian dialects, Southern Calabrian and Salentino. He claims that the subjunctive mood requires the activation of two functional heads, one in IP and one in CP, and that the latter is valued through Agree by the feature in the former<sup>21</sup> (he names this feature “[mood]”, though we can identify it as [realis]); the reason for this process is that mood is an inflectional property of the embedded clause that has to be made visible in the left periphery in order for the selection process of the matrix verb to be successful<sup>22</sup>.

According to Damonte, the uninterpretable feature is the one in Fin<sup>o</sup> and that it is valued through Agree by the one in Mood<sup>o</sup><sup>23</sup>. Though in §4.2 we will claim that the involved agreement processes are different, nonetheless there exists a relationship between these two projections, both of which can host in their head a feature [realis].

Damonte states that in Southern Calabrian, when the morpheme “mu” checks the feature [mood] in the IP projection without raising to the CP, other material can be merged or moved in Fin to check the mood feature there<sup>24</sup>. This is the same case as in AG: *ǰv* can check the [-realis] feature in Fin via movement.

Further evidence for all that we have said so far is the fact that *ǰv* is strictly related to the subjunctive mood and that in subjunctive subordinate clauses, as shown by the data in §2.2, it always appears in the “Wackernagel position”, which we can easily argue to be located within the CP. This clearly overlaps his analysis, with the verb in the subjunctive mood in a low IP projection and *ǰv* in FinP, both checking the feature [-realis].

## Polarity Focus

We will claim that when *ǰv* appears to be a Focus marker it is instead the result of the Focus of a negative element, which first raises to a Polarity projection above FinP, where *ǰv* is located, in order to scope over the modality element.

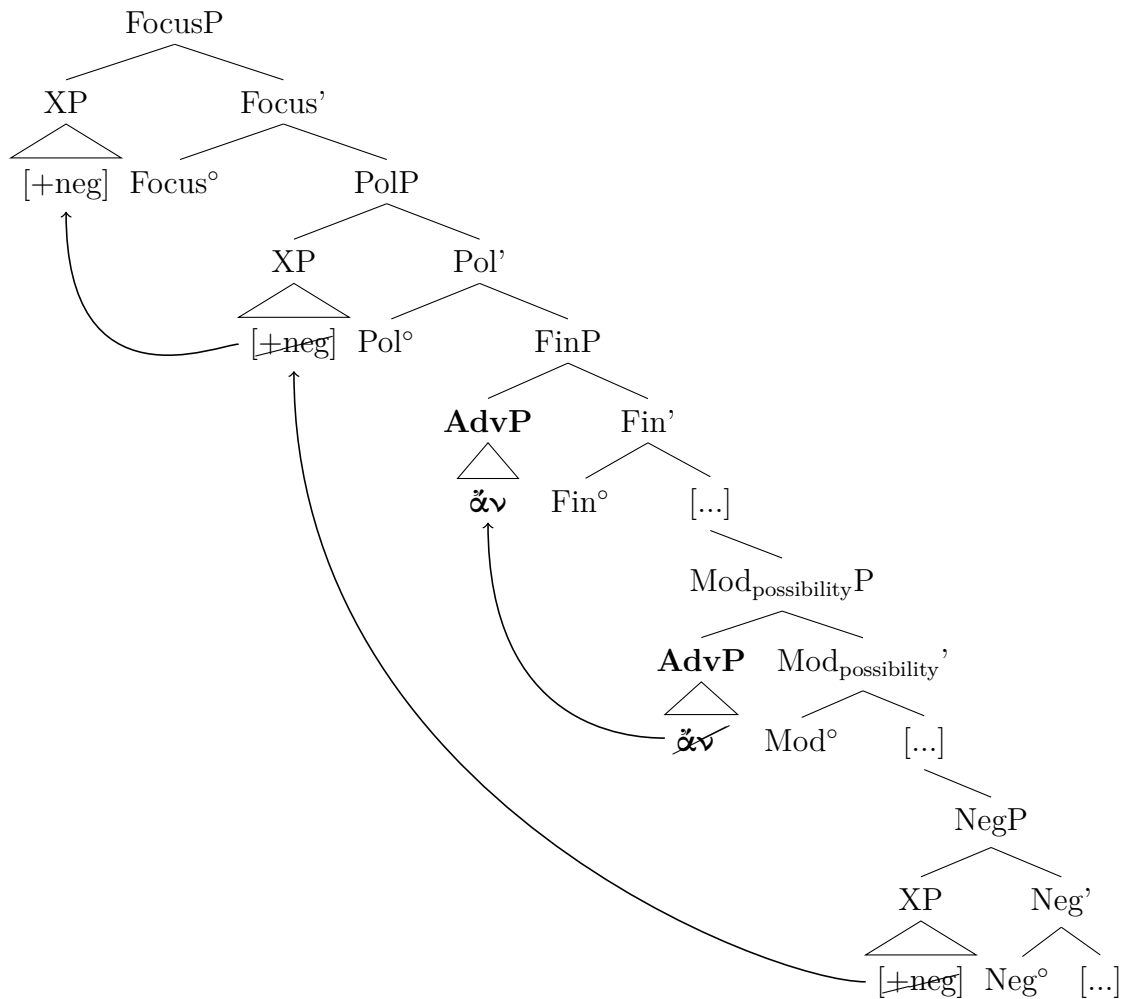
<sup>21</sup>Damonte (2010, p. 230)

<sup>22</sup>Damonte (2010, p. 244)

<sup>23</sup>Damonte (2010, p. 244)

<sup>24</sup>Damonte (2010, p. 248)

(12)



PolP is the projection that makes the truth value of the sentence accessible in the left periphery<sup>25</sup>: though some may treat it as a projection within the IP, it is preferable to have the CP present a dedicated projection as well. It is therefore located right above FinP; it also can not be identified as FinP itself: this projection is related to the inflectional features of the verb in IP, but the truth value, though it can be expressed in different positions for negative elements among the functional field, is not an inflectional feature of the verb per se.

As other elements, the negative constituents of the clause can be targeted by a Focus operation: in this case, Batllori and Hernanz (2013) state that first the negative XP raises to the Spec of PolP and then, as always in a focalization process, to the Spec of FocusP<sup>26</sup>.

What does all this have to do with *čv*? Within the corpus, among the 55 occurrences of

<sup>25</sup>Batllori and Hernanz (2013, pp. 18-19)

<sup>26</sup>Batllori and Hernanz (2013, p. 15)

ἄν within root assertive clauses in which it seems to be located in a Wackernagel position, therefore in the CP, 19 present also a negative element that precede ἄν. It appears therefore to be a frequent distribution

It is important now to understand the semantics of negative clauses with ἄν:

(13) ἡμεῖς ἀποδράϊμεν ἄν οὐδαμοῖ ἐνθενδε. *Xen. An. 6, III, 16*

hēmêis apodráiēmen            =an ūdamôî enthénde  
we.NOM escape.AOR.OPT.1PL AN    nowhere hence

“Hence we could not escape anywhere.”

In (13) it is not the modal that scopes over negation (“It is possible that we do not escape”; with logic operators:  $\diamond\neg$ ), rather than negation that scopes over the modal (“It is not possible that we escape”;  $\neg\diamond$ ).

Within his functional field, Cinque has identified few Negation projections, the highest of which is located between  $\text{Asp}_{\text{celerative}}\text{I}$  and  $\text{T}(\text{Anterior})$ <sup>27</sup>, therefore lower than the merge position of ἄν, which is  $\text{Mod}_{\text{possibility}}$ . This means that in order to scope over the modal, negation has to move towards a projection that sits above ἄν, namely  $\text{PolP}$ , and since we find examples where this movement is not visible at PF (like (13)) we must conclude that it is possible that it verifies at LF.

However, we have seen that it is possible for the negative element to be targeted by the Focus projection; in this case it must first move to  $\text{SpecPolP}$ , in order to scope over the modal, then  $\text{SpecFocusP}$ : these movements, being caused by the necessity to have a focussed element, must happen at PF. We could also argue that whenever negation within a clause with a modal element is focussed, it triggers the raising of this element too: this is because in order to focus the truth value of a sentence, also the world of reference must be included; therefore ἄν, which widens the reference to all possible worlds, must be visible to the negative element in the left periphery, while occupying a lower position, which we have seen to be identified with  $\text{FinP}$ , in order to comply with the logical ordering of operators.

Therefore, this accounts for the distribution of ἄν with focussed negative elements without claiming that ἄν is itself a Focus marker, which would raise some problems.

## 1. Spec vs. Head

For ἄν to be a Focus marker, it should be located in  $\text{Focus}^\circ$  and cause the raise of the focussed XP, that is the negative element, to its  $\text{Spec}$  position; therefore, the sentence in (14) could be analysed as in (15):

<sup>27</sup>Cinque (1999, p. 106)

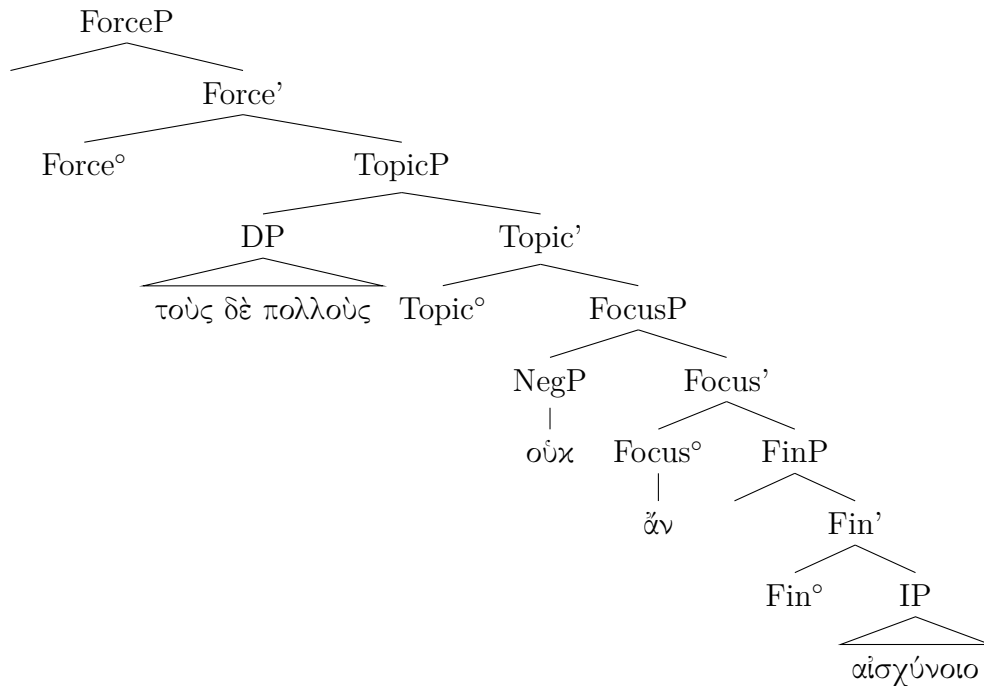


- (14) τούς δὲ πολλούς οὐκ ἄν αἰσχύνοιο. *Plat. Symp. 194c*

tūs =dé pollūs ūk= án aiskhýnoio?  
 the.ACC.M.PL and many.ACC.M NEG AN be.ashamed.OPT.2SG.MID

“Would you not be ashamed in front of these many?”

- (15)



The problem with this derivation is that ἄν cannot occupy the Focus° position. In the previous section we have seen that it is merged as an AdvP in the Spec of a modality projection in the functional field of IP. Therefore, since a phrasal component cannot move to a head position, this derivation is not justified.

## 2. Other Focus markers

Evidence to reject the claim that ἄν is a Focus marker is easily found in sentences where an actual Focus marker is present, like γε; if both this element and ἄν are to occupy the head of the Focus projection, we would expect a complementary distribution, which is not the case:

- (16) μαχόμενοί γ' ἄν μετ' ἀλλήλων οἱ τοιοῦτοι νικῶεν ἄν. *Plat. Symp. 178e-179a*

[*FocusP* [*SpecFocusP* makhómenói] [*Focus'* [*Focus°* =g(e)]] [*FinP* =án met(á) allēlōn hoi=toiútoi nikōen =án]]]

“If they compete with each other they would win.”

- (17) οὐδ' εἰ γενοίμην σοί **γ' ἄν** ποτε ἔτι δόξαιμι. *Xen. An. 1, VI, 8*  
 ūd(é) =ei genóimēn [<sub>FocusP</sub> [<sub>SpecFocusP</sub> sói] [<sub>Focus'</sub> [<sub>Focus°</sub> =**g(e)**][<sub>FinP</sub> =**án** =pote  
 éti dóxaimi]]]  
 “Not even if I were would you ever believe me again.”

### 3. Wh-questions

Another proof against ἄν as a Focus marker comes from wh-questions, in which the wh-word is attracted in the Spec of Focus by a silent operator in Focus<sup>o</sup><sup>28</sup>; again, this operator should be in complementary distribution with ἄν, though once more this is not the case:

- (18) τί ἄν οὖν σὺ δύναιο τῆ στρατιᾷ διδόναι; *Xen. An. 7, II, 35*  
 [<sub>FocusP</sub> [<sub>SpecFocusP</sub> τί] [<sub>Focus'</sub> [<sub>Focus°</sub> **wh-OP**][<sub>FinP</sub> =**án** ūn sý dýnaio tē stratiā didónai]]]  
 “What then could you give to the army?”

### 4. Negation not focused

It should be also noted that the presence of both ἄν and negation in a clause does not necessarily determine the raise to Focus and the order NEG-ἄν, as in (13), repeated here:

- (19) ἡμεῖς ἀποδράϊμεν **ἄν οὐδαμοῖ** ἐνθενδε. *Xen. An. 6, III, 16*  
 hēmēis apodráiēmen =**an** ūdamōi enthénde  
 we.NOM escape.AOR.OPT.1PL AN nowhere hence  
 “Hence we could not escape anywhere.”

We must conclude that ἄν can not be a Focus marker and the best way to account for its distribution with high negative elements is that presented above.

## 4.2 Agreement phenomena

In Ouali (2008) is discussed that, given Chomsky’s proposal that T inherits its  $\varphi$ -features from C, there are three possible outcomes for the movement of the features between these projections:

- (20) a. C transfers its  $\varphi$ -features to T (DONATE);  
 b. C does not transfer its  $\varphi$ -features to T (KEEP);

<sup>28</sup>Benincà (2001, pp. 51-53)

- c. C transfers its  $\varphi$ -features to T and keeps a copy (SHARE).

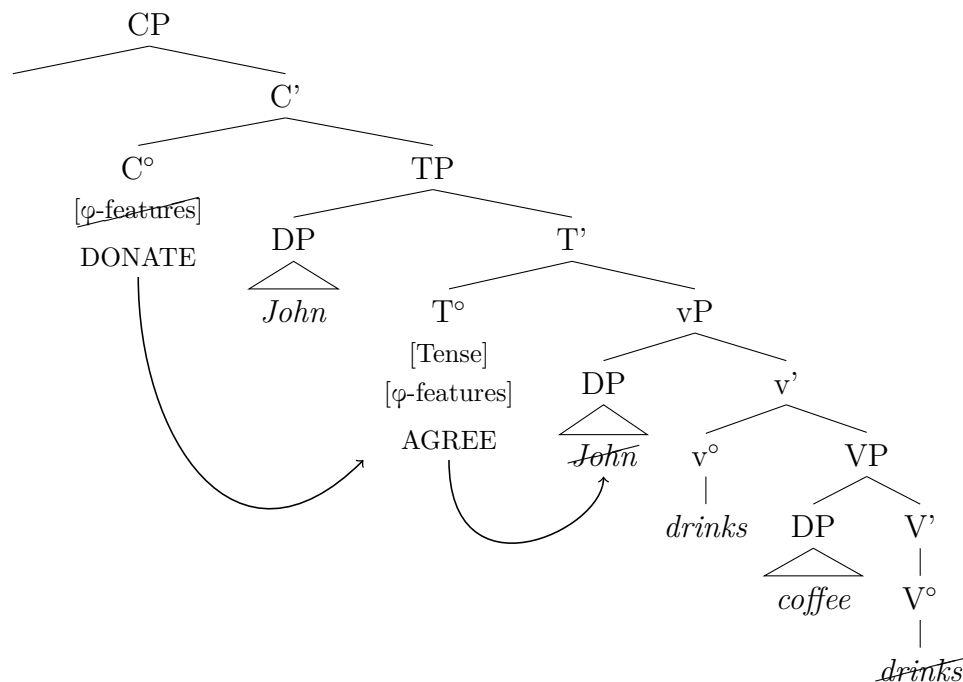
We will argue that these operations all take place in different context where  $\check{\alpha}\nu$  can be found.

### 4.2.1 Ouali's theory on agreement

Ouali argues that these Agreement operations are ordered as under principles of economy and finds evidence in English and Tamazight<sup>29</sup>. The first case, DONATE, is observable in simple declarative clauses in English: T inherits its  $\varphi$ -features from C and only then probes the subject with an Agree operation<sup>30</sup>:

- (21) a. John drinks coffee.

b.



The second case, KEEP, happens when the features need to be located in C; in Tamazight are attested contexts which lack subject-verb agreement, like subject-wh clauses<sup>31</sup>:

- (22) mani thamttut ag ɣlan araw  
 which woman COMP see.PF.PART boys  
 Which woman saw the boys?

If DONATE applied to this context, the following is what would happen:

<sup>29</sup>Ouali (2008, pp. 160-161)

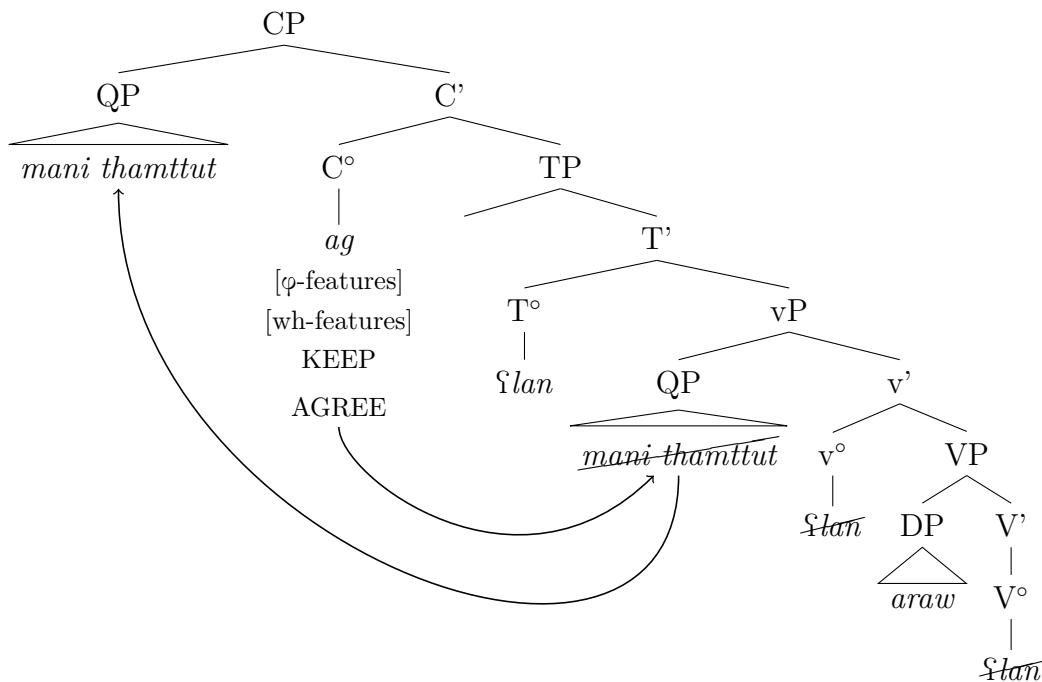
<sup>30</sup>Ouali (2008, p. 161)

<sup>31</sup>Ouali (2008, p. 164)

- T would receive [-interpretable] features from C, then probe the subject and agree with it, showing agreement morphology which is not the case here;
- C, bearing only [+interpretable] wh-features, will not be active and the subject, which is still active bearing [-interpretable] wh-features, will not get these features checked, leading to a crash in the structure<sup>32</sup>.

To avoid the crash, here is adopted the KEEP strategy: C does not transfer its [-interpretable] features to T, therefore remaining active and probing the closest goal, which is the still active subject; the result is Agree and the rise of the wh-subject<sup>33</sup>.

(23)



The last case is observable in sentences where both T-agreement and C-agreement are required, as in wh-object questions:

- (24) manī lekhtab ay theqra therbat  
 which book COMP 3SG.read.PF girl  
 Which book did the girl read?

If DONATE were to apply, T would receive [-interpretable] features from C, then probe the subject and agree with it, as it actually happens; however C, bearing only [+interpretable]

<sup>32</sup>Ouali (2008, p. 166)

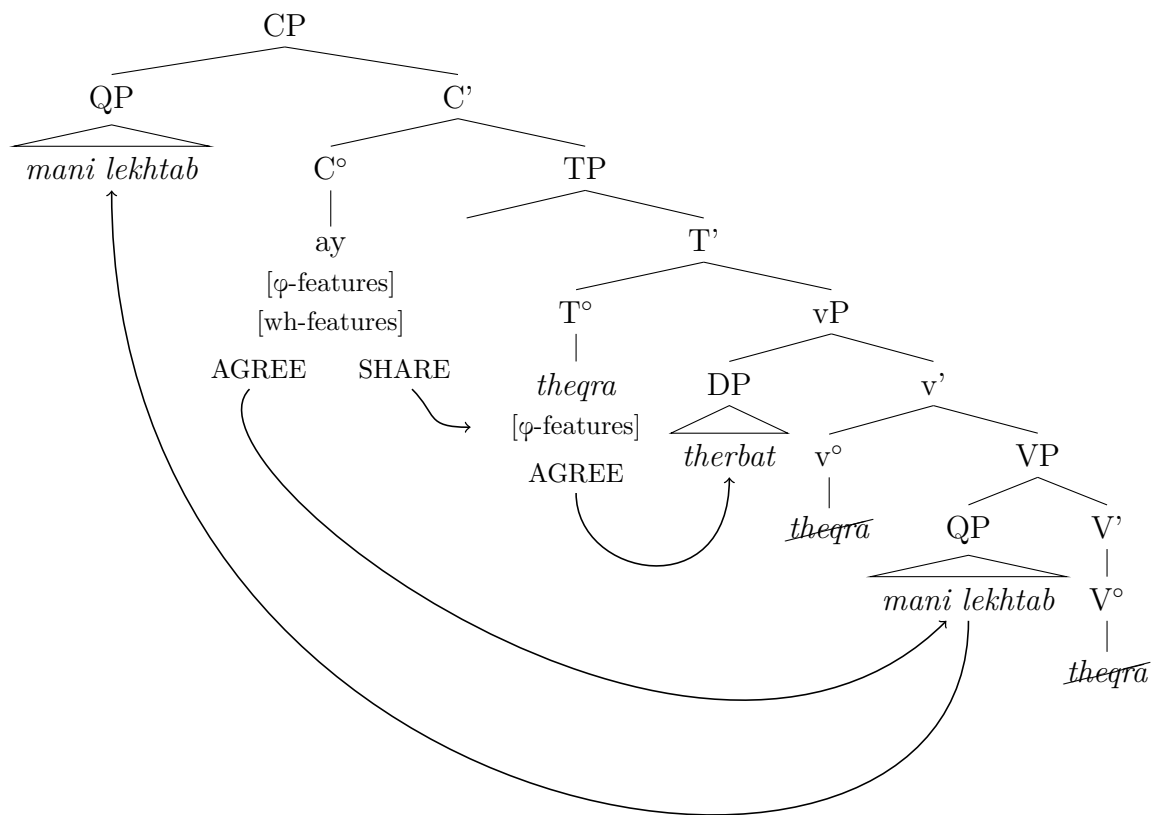
<sup>33</sup>Ouali (2008, pp. 166-167)

wh-features, will not be active and the object, which is still active bearing [-interpretable] wh-features, will not get these features checked, leading to a crash in the structure.

If KEEP were to apply, C would bear [-interpretable]  $\varphi$ -features, therefore would probe the closest active DP, the subject, and agree with it valuing its case; in this case, the features in C would get valued and deleted, therefore the wh-features of the object would fail to get valued and the derivation would crash.

Thus the solution is to adopt the SHARE strategy: C transfers its features to T and keeps a copy, which means that they are both active; T probes the closest active goal, the subject, and the result is subject-verb agreement; C then probes the closest active goal which is now the object, since the subject has been inactivated by T, and C-agreement is obtained, marked by the obligatory complementiser<sup>34</sup>.

(25)



<sup>34</sup>Ouali (2008, pp. 173-174)

### 4.2.2 $\check{\text{z}}\text{v}$ and agreement processes

Since Damonte states that there exists a modal agreement relationship between a head in C and a head in I, namely Fin and Mood<sub>irrealis</sub>, it could be the case that the same Agree processes seen in §4.2.1 happen for modal agreement as well. Therefore, we will try to map the movement of the [-realis] feature in the structure and its interaction with mood and  $\check{\text{z}}\text{v}$ . Although it must be noted that all high functional modal projections, namely Mood<sub>speech act</sub>, Mod<sub>evaluative</sub>, Mod<sub>evidential</sub> and Mod<sub>epistemic</sub>, are possible hosts for this feature<sup>35</sup>.

Since Fin is the head in CP, we will assume that this is where the feature is originated and whence it moves to the lower Mood head in IP.

A DONATE operation implies that the feature is transferred from Fin to Mood, then Mood probes for a goal that checks its feature. This is the case for clauses with  $\check{\text{z}}\text{v}$  and the optative or the past tense of the indicative in which  $\check{\text{z}}\text{v}$  is merged in the alethic possibility modality projection, which in Cinque's hierarchy is located below Mood<sub>irrealis</sub>P.

First, Fin DONATEs the feature to the lowest possible projection, which is the core projection of Mood<sub>irrealis</sub>; since this is a core projection, it probes for a verbal phrase to check its [-realis] feature; however, since the morphology for *non-realis* in AG is represented by the subjunctive mood, the feature in Mood<sub>irrealis</sub>C does not get its feature checked and as a result the derivation crashes.

The optative or the past tenses of the indicative can not check the [-realis] in Mood<sub>irrealis</sub>CP: as a matter of fact, this projection is dedicated to the subjunctive mood in opposition to the indicative, while the optative, 1.2, did not originate within the *realis/non-realis* system, but was itself an eventive stem per se<sup>36</sup>. Therefore, being a modal expression of possibility, more precisely of truth in a possible world, it bears the same feature  $\diamond$  as  $\check{\text{z}}\text{v}$ . We can argue then that, as  $\check{\text{z}}\text{v}$  checks the feature  $\diamond$  in the non-core projection of Mod<sub>possibility</sub>, the optative checks that in the core projection, though never entertaining any agreement relationship with the [-realis] feature. The same goes for the past tenses of the indicative as well, which are in this context a modal expression of possibility, with an exclusion feature in addition to exclude the actual world and thus expressing unreality<sup>37</sup>.

Since it is not possible for Fin to DONATE the feature to the core projection, then it DONATEs it to the projection right above, which is the non-core one (given that the feature is not already present due to the merge of an *irrealis* adverb in the Spec position, such as  $\check{\text{z}}\text{v}$ ); then Mod<sub>possibility</sub>NC probes for an adverbial phrase, which is the AdvP  $\check{\text{z}}\text{v}$  located in

<sup>35</sup>Haegeman (2010, p. 609)

<sup>36</sup>Sihler (1995, p. 595)

<sup>37</sup>Beck, Malamud, and Osadcha (2012, p. 65); see also §3.3.1

SpecMod<sub>possibility</sub>NCP; ἄν therefore raises and checks the feature<sup>38</sup>.

(26) καὶ πολλάκις μὲν ἡδέως ἄν ἴδοιμι αὐτὸν μὴ ὄντα ἐν ἀνθρώποις. *Plat. Symp. 216c*

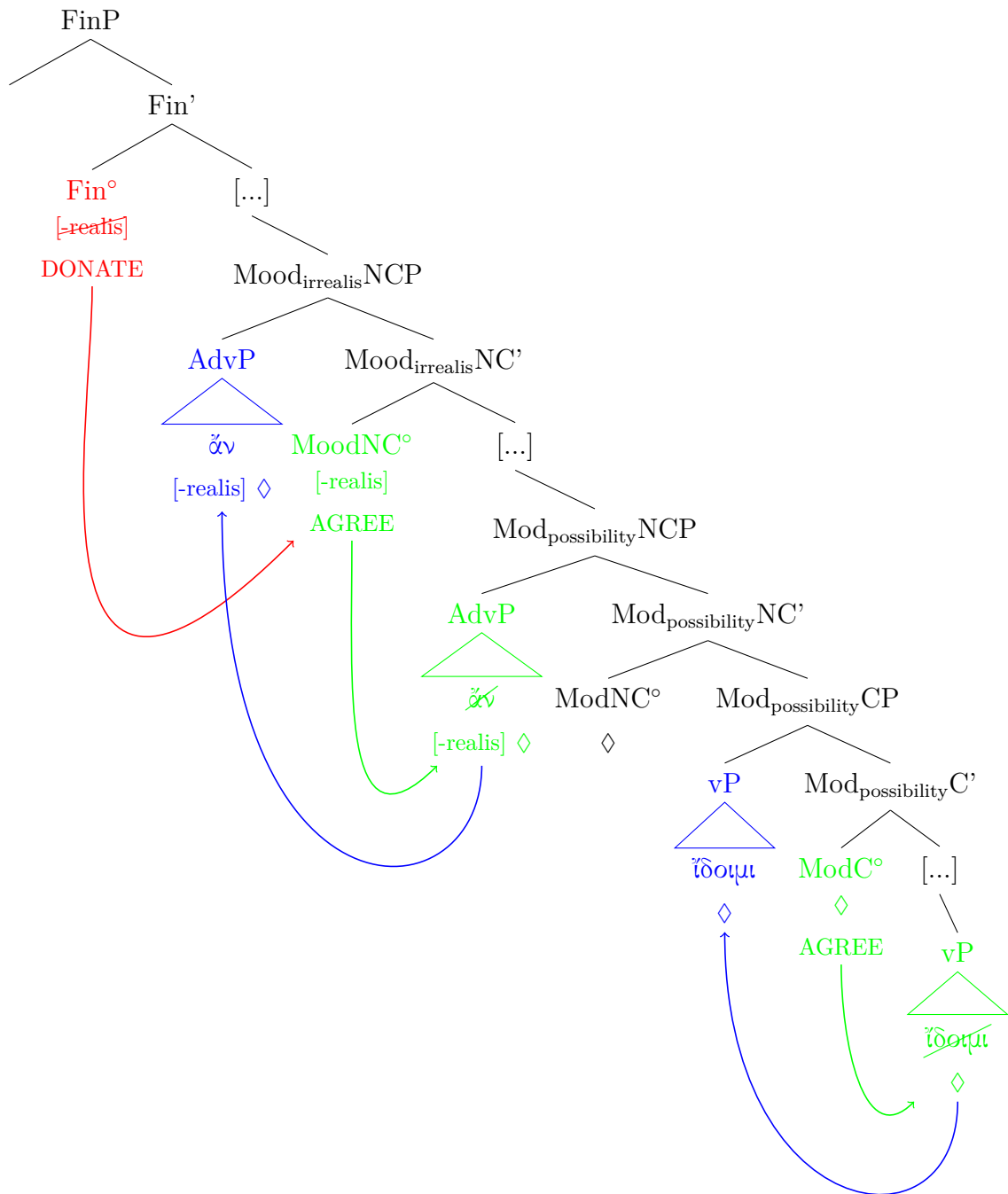
kái pollákis =mén ēdéōs =án ídoimi autón mē  
 and many.times TOP-MARK pleasantly AN see.OPT.1SG him.ACC.M not  
 ónta en= anthrōpois  
 be.PTCP.ACC.M.SG in man.DAT.M.PL

“And many times I would pleasantly see him not being among men.”

In (27) is the derivation of the merge and movement of ἄν and the verb.

<sup>38</sup>In the following trees the colour red identifies feature transfer, the colour green agreement and the colour blue constituent movement.

(27)



After this process ἄν can proceed, if needed, to raise to the Spec position of the non-core projection of Epistemic Modality, in order to check the [+speaker] feature.

A KEEP operation implies that the feature is not transferred from Fin to a lower projection, then Fin probes for a goal that checks its feature; all the adverbs in the higher functional projections, namely Speech Act, Evaluative Modality, Evidential Modality, Epistemic



Modality and Irrealis Mood, bear the feature [-realis], therefore, because of the minimality restriction,  $\check{\nu}$  can not check the feature in Fin if there is material in any of these projections<sup>39</sup>. This operation concerns the occurrences of  $\check{\nu}$  with the optative or the past tenses of the indicative, but when  $\check{\nu}$  must be located in Fin when the clause contains a polarity focus expressed by a negative element; once again, the Mood<sub>irrealis</sub> core projection does not concern these mood verbs, therefore it remains inactive.

(28) οὐκ ἂν καρτερήσαιμι.

*Plat. Symp. 216a*

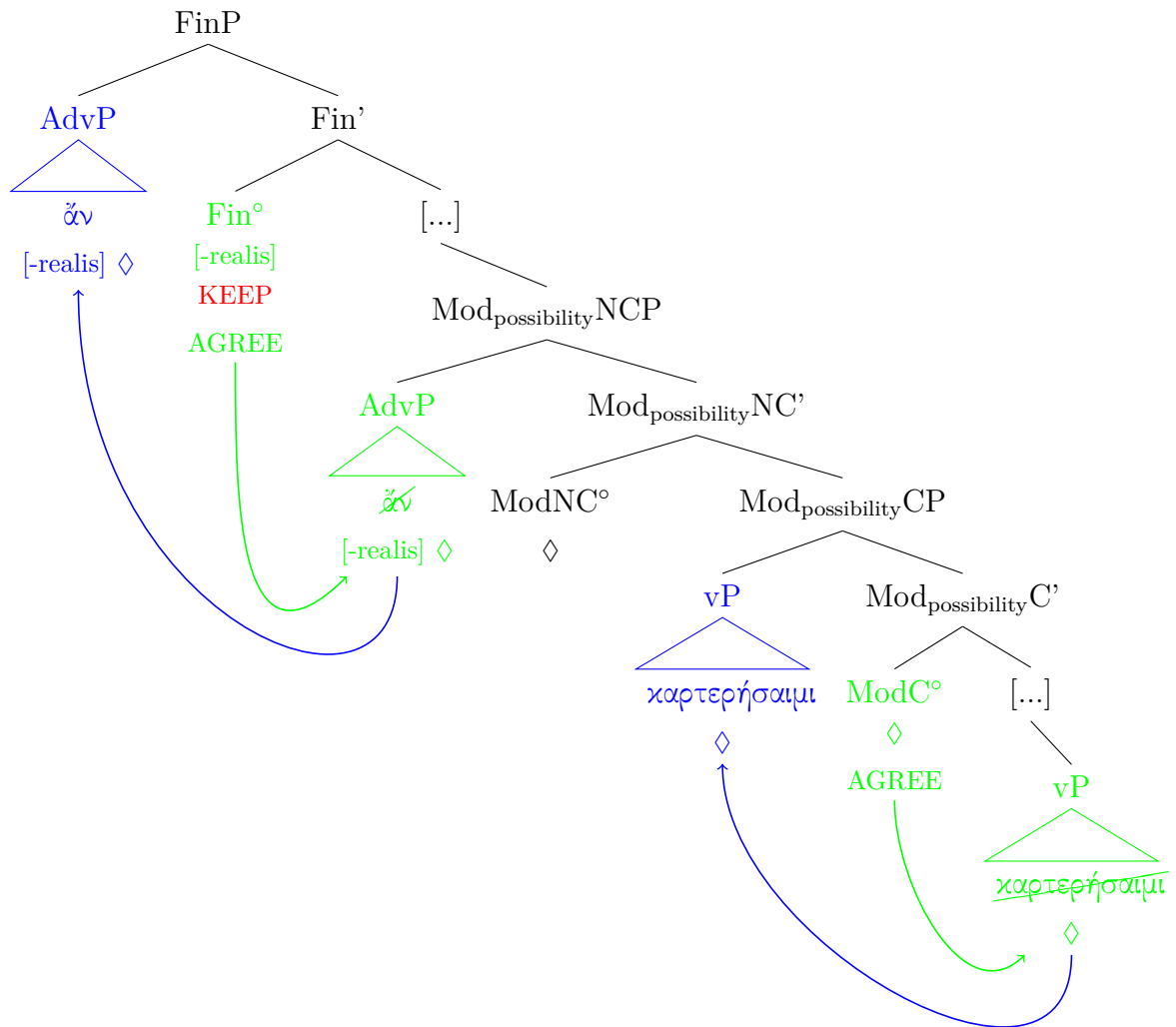
$\bar{u}k$  =án karterēsaimi  
NEG AN be.patient.AOR.OPT.1SG

“I could not be patient”.

In (29) is the derivation of this sentence, without negation which we already know to be located in SpecFocusP.

<sup>39</sup>Of course if the material in Mod<sub>epistemic</sub> is  $\check{\nu}$  itself, after having been moved from its merge position, the probe could target it in this location.

(29)



If DONATE were to be applied in these contexts, the result would be that the feature [-realis] would no longer be located in Fin, which we know to be required when negation is subject to polarity focalisation.

This derivation determines that when ἄν is located in Fin it cannot co-occur with higher functional adverbs, otherwise they would intervene between the probe in Fin and the goal in Mod. It seems though as in some cases the distribution ἴσως ἄν, that is with an *irrealis* adverb, is attested with ἄν situated in the left periphery:

- (30) ἴσως ἂν οὐκ ἀπορήσαιμεν κομιδῆς οἷας δεόμεθα. *Xen. An. 5, I, 11*

ísōs =án ūk aporēsaimen komidês óias  
 perhaps AN NEG lack.AOR.OPT.1PL equipment.GEN.SG REL.GEN.F.SG  
 deómetha  
 need.MID.1PL

“Perhaps we would not lack the equipment we need.”

This is explainable simply arguing that it is not a case of  $\check{\alpha}\nu$  in Fin, but rather a pied-piping movement of Mood<sub>irrealis</sub>P of the whose-picture type, which brings along material from lower projections, such as  $\check{\alpha}\nu$ , locating it on the right<sup>40</sup>.

Lastly, a SHARE operation implies that the feature is transferred from Fin to a lower projection, which then probes for a goal that checks its features; at this point Fin too probes for a goal to check its own feature. This operation concerns the occurrences of  $\check{\alpha}\nu$  with the subjunctive mood, with the latter to check the feature received by the core Mood<sub>irrealis</sub>C projection and the former to check the copy in Fin. It must be reminded that Mood<sub>irrealis</sub>C probes for a verbal phrase, since it is the core projection, therefore  $\check{\alpha}\nu$ , though located higher than the verb, does not intervene, being an adverbial phrase, thus minimality is preserved.

- (31) τοῖς περιττοῖς χρήσονται [ὅ τι ἂν βούλωνται]. *Xen. An. 4, VIII, 11*

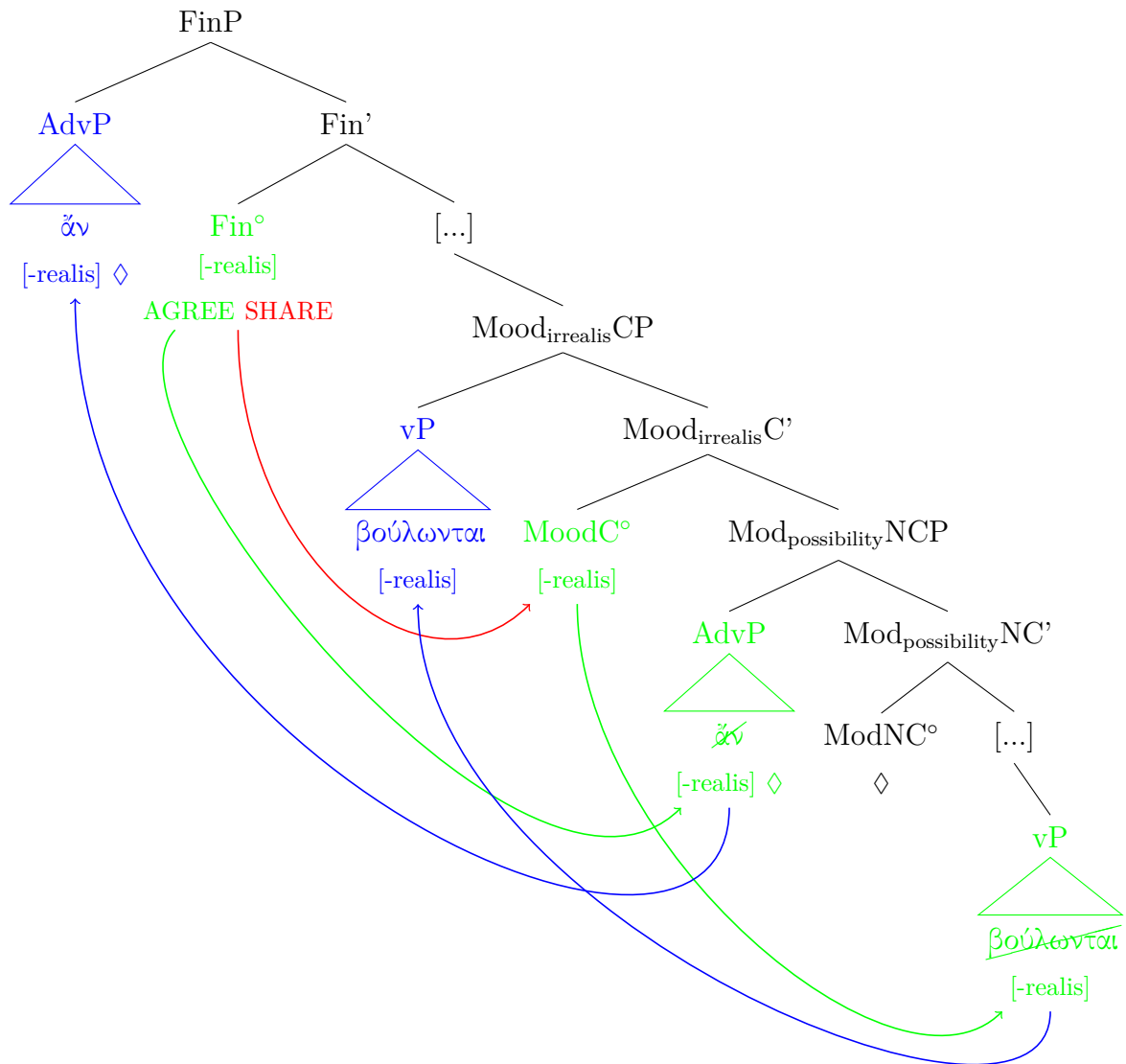
tôis perittôis khřēsontai hó=ti án būlōntai  
 the.DAT.M.PL in.excess.DAT.M.PL use.FUT.3.PL.M COMP AN want.SUBJ.3PL

“They will use those in excess as they want.”

In (32) the derivation focuses on the subjunctive subordinate clause; the complementiser for the moment is left out and will be dealt with in §4.3.

<sup>40</sup>Cinque (2017, pp. 528-530)

(32)



A DONATE operation would result in Fin not having the [-realis] feature, that in subjunctive clauses is required to be visible in the left periphery, as we will see in §4.3; therefore, the derivation would crash.

A KEEP operation would result in Fin not transferring the [-realis] feature to any functional projection; this feature would then have to be checked through the raise of the first active possible element, that is ἄν; therefore, the still active [-realis] feature of the verb in the subjunctive mood would not be checked by anything, getting deleted and causing a crash in the derivation.

Again, these contexts are not compatible with the presence of higher functional adverbs,

which is actually the case for the data collected: a subjunctive subordinate clause never presents adverbs or modals higher than  $\text{Mod}_{\text{possibility}}$ .

## 4.3 Subjunctive subordinate clauses

In this section we will argue that subjunctive subordinate clauses with  $\check{\alpha}\nu$  are central adverbial clauses, according to Haegeman's classification, and therefore, according to her original account of the left periphery of such clauses, present the sequence of nodes SubP - FinP which explains the distribution of  $\check{\alpha}\nu$  in this context.

### 4.3.1 Adverbial clauses

To start off this section, we want to understand which types of subordinate clauses and which types of complementisers require  $\check{\alpha}\nu$  and the subjunctive. As seen in §2.2, the most common clause types are conditional, temporal, relative and indefinite-relative clauses, though there are cases also of final, concessive, comparative and causal (these last two with only one occurrence).

A pattern that unifies all these clause types will probably be clearer once we have considered also the nature of the complementisers involved:

- $\acute{\omicron}\varsigma$  - originally the demonstrative adverb form of the relative pronoun, it introduces comparative clauses, generally meaning «as», «as far as».
- $\acute{\omicron}\pi\omega\varsigma$  - formed by the relative pronoun  $\acute{\omicron}$ - and the manner indefinite adverb  $\pi\omega\varsigma$ , it introduces comparative clauses as well as sometimes final clauses.
- $\acute{\omicron}\tau\epsilon$  - also formed by the relative pronoun  $\acute{\omicron}$ -, it introduces temporal clauses, meaning «when» or more precisely, in these cases, «whenever».
- $\acute{\omicron}\pi\omicron\tau\epsilon$  - again formed by the relative pronoun  $\acute{\omicron}$ - and the temporal indefinite adverb  $\pi\omicron\tau\epsilon$ , it introduces temporal clauses indicating repetition or continuation.
- $\eta\nu\acute{\iota}\chi\alpha$  - another complementiser introducing temporal clauses.
- $\pi\rho\acute{\iota}\nu$  - originally an adverb, it means «before» and introduces temporal clauses.
- $\xi\omega\varsigma$  - originally an adverb, it means «until» and introduces temporal clauses.
- $\xi\sigma\tau\epsilon$  - it also means «until» and introduces temporal clauses.

- μέχρι/ἄχρι - another couple of adverbs meaning «until» and introducing temporal clauses.
- ἐπί - formed by the preposition and adverb ἐπί, meaning «at», «over», «after», «regarding», and the locative εἰ, it may introduce both temporal and causal clauses, as the English «since».
- εἰ - of uncertain origin, it may be derived by a locative particle; it introduces conditional and concessive clauses.
- ὅς - the relative pronoun, introducing regular relative clauses.
- ὅστις, ὁπότερος, ὅος, ὅσος - indefinite-relative pronouns, the third one also expressing the idea of quality and the last one expressing the idea of quantity.

It is easier now to recognize a pattern. Relative and indefinite-relative clauses in the traditional literatures were defined as conditional relative<sup>41</sup>, since there is a conditional force felt through the clause. On the other hand, the conditional complementiser seems to be related to a locative expression; furthermore, Haegeman (2010) states that conditional clauses are a particular form of adverbial clauses<sup>42</sup>. Therefore, if we interpret relative clauses with ἄν as conditionals and conditionals as adverbial clauses, we notice that this adverbial nature is shared by all other complementisers, therefore also by other clause types.

But to what kind of adverbial clauses do subjunctive subordinators with ἄν belong in AG? Haegeman (2004) identifies two possible types:

- peripheral adverbial clauses - these provide background propositions that are to be processed as the privileged discourse context for the proposition expressed in the associated clause;

(33) While [Dr Williams'] support for women priests and gay partnerships might label him as liberal, this would be a misleading way of depicting his uncompromisingly orthodox espousal of Christian belief. (Guardian, 2.3.2, page 9, col 1-2) (background assumption: 'whereas')

- central adverbial clauses - these modify the proposition expressed by the clause with which they are related<sup>43</sup>.

<sup>41</sup>See above in §1.3.

<sup>42</sup>Haegeman (2010, pp. 598-603)

<sup>43</sup>Haegeman (2004, p. 61)

- (34) According to Smith, a group of Arkansas state troopers who worked for Clinton while he was governor wanted to go public with tales of Clinton's womanising. (Guardian, G2, 12.3.2, page 3, col 2-3)(event time: 'during the time that')

The main difference between these two types resides in the use of the left periphery and the higher functional field: while peripheral adverbial clauses do not show any difference with root clauses in the use of forces, left dislocations, focalizations and selection of high adverbs, central adverbial clauses apparently do not tolerate these operations, aside probably from adjunct dislocation. The theories over the structural differences between these types will be dealt with later on. In AG, almost every subordinate with the subjunctive mood and *žv* belongs to the second type, since in any case they primarily contribute to the main clause they are associated to:

- relative clauses are all restrictive, which means that they consent the identification of the antecedent in a precise domain, therefore are central adverbials;
- indefinite-relative clauses are by default restrictive, since they do not have an antecedent located in the main clause;
- conditional clauses with *žv* and the subjunctive express the presupposition for the general statement in the main clause to be true, therefore are central adverbials;
- concessive clauses behave as their conditional counterparts;
- temporal clauses, in Haegeman's analysis, are considered as free relatives, therefore are central adverbials;
- the one case of causal clause with the subjunctive, as seen above, can be analysed as a temporal clause;
- comparative clauses in their comparison impose a restriction (or a condition) to the main clause, therefore are central adverbials;
- final clauses with *žv* and the subjunctive, though rare, seems to be the exception to this pattern, since they do not seem to contribute to the meaning of the main clause but rather just provide further information, as peripheral adverbials do; we will deal with this type later on.

In adverbial clauses the complementiser is merged in the functional field (e.g. temporal complementisers in a Tense projection) then it is moved to the left periphery via an





feature. In order for this feature to be visible to the Sub projection, which is the highest node of the subordinate clause, therefore the one that interacts with the root clause, SubP directly selects a FinP which is required to host the [-realis] feature; we have also seen in §4.2.2 that this feature is shared with the lower Mood projection, in order for the subjunctive to check its own [-realis] feature, therefore ἄν has to raise to FinP to check the feature in this projection.

This configuration also accounts for the absence of any Topic or Focus within these clauses, as well for that of higher functional adverbs, all of which depend on the Force projection to anchor their [+speaker] feature.

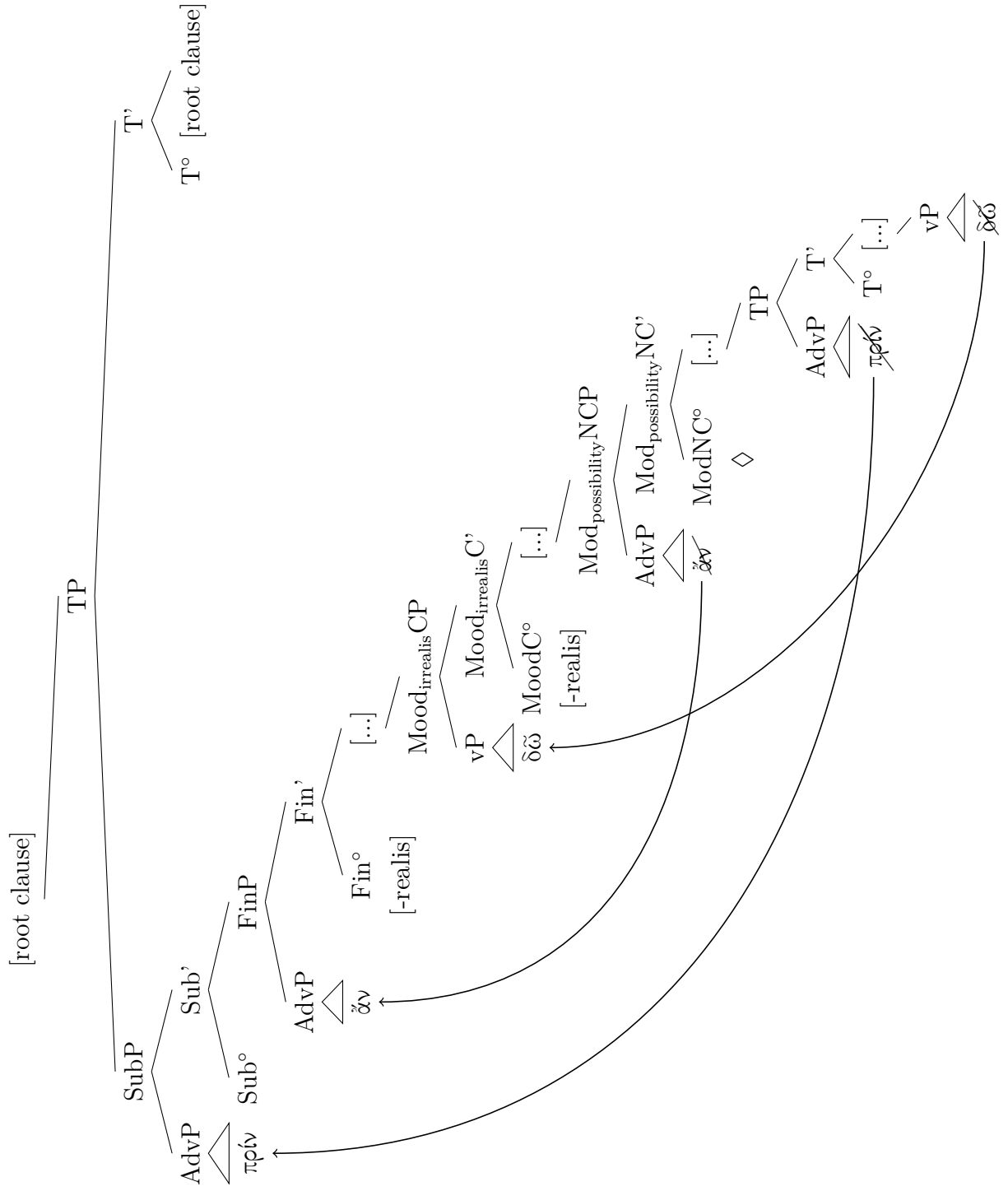
Therefore, the derivation for a subjunctive subordinate clause with ἄν in AG would be like in (36), which is in this particular case a temporal clause:

(36) [...] ἀπελθεῖν πρὶν ἄν δῶ δίκην. *Xen. An. 5, VII, 5*

apelhêin            prín    =án dô                    díkēn  
depart.AOR.INF before AN    give.SUBJ.1SG justice.ACC.SG

“[...] depart before I serve my sentence.”

[ROOT ἀπελθεῖν [<sub>SubP</sub> πρὶν [<sub>FinP</sub> ἄν [<sub>IP</sub> δῶ δίκην. ]]]]



However, in Authier and Haegeman (2015) is argued that the truncation account may not be valid due to the presence of some form of topicalisation, namely clitic left dislocation and adjunct fronting, in languages like French; therefore, Haegeman claims that those projections she declared absent are actually only silent. The presence of material in any of these projection would intervene in the raise of the complementiser to SubP: Force and Focus host operator-like material, which would clash with the *wh*-type of fronting of the complementiser due to the non compliance to Relativized Minimality; Topic does not interfere, hence the availability of CLLD and adjunct fronting.

This new analysis is convenient in order not to have differences between the left periphery in root and subordinate clauses, however some consequences for these clauses in AG have to be better explained: above all, the absence of any kind of Topic is absolutely unquestionable, though it is yet to be justified under the new intervention account; also, in the left periphery that we adopted for our derivation there is also the Polarity projection (see §4.1.2), which we still have to prove to be silent, since Haegeman never mentions it.

Therefore, the truncation account seems to suit more easily our data for AG, though the intervention account is the latest and more general approach. We will see to what both of those lead.

### **The truncation account**

The immediate convenience for AG of the truncation account is that it does not leave the possibility of topicalization and also gets rid of the Polarity projection, whose goal before was to allow the Focus of negative elements but that in these cases would serve no purpose: we will try to spot a difference between Haegeman's central adverbial clauses and the ones we have encountered in AG.

This difference may reside in the fact that these clauses in AG are selected precisely with

the feature [-realis], while in Haegeman’s work this does not play any role in distinguishing among central adverbial clauses. The following is an example of hers about the restriction on argument fronting in this type of clauses<sup>48</sup>:

(37) \*When this song I heard, I remembered my first love.

We can notice that this central adverbial clause does not bear the feature [-realis], while all the subordinate clauses we are considering in AG do. Therefore, we return to the requirement for this feature to be accessible to the SubP and be directly selected by the root clause, for which the truncation account turns out to be more suitable. This process can be schematized as follows:

- (38)
- a node in the root clause needs a [-realis] feature;  
ROOT NODE [?realis]
  - this node selects a SubP to “bridge” the feature from a subordinate clause to the root node;  
ROOT NODE [?realis] — SubP
  - SubP directly selects a projection with [-realis];  
ROOT NODE [-realis] — SubP — FinP [-realis]
  - this FinP selects an IP according to its features.  
ROOT NODE [-realis] — SubP — FinP [-realis] — IP [-realis]
  - this feature is later checked by *ᾗν* and the subjunctive mood.  
ROOT NODE [-realis] — SubP — FinP [*ᾗν*] — IP SUBJ

In fact, we can find central adverbial clauses in AG without *ᾗν*, therefore without the feature [-realis], which even seem to present adjunct fronting:

(39) ἐνταῦθα Ξέρξης ὅτε ἐκ τῆς Ἑλλάδος ἠττηθεὶς τῇ μάχῃ ἀπεχώρει λέγεται [...] *Xen. An. 1, II, 9*

entâutha	Xérxēs	hóte	ek=	tês=	Elládos
hence	Xerxes.NOM	when	from	the.GEN.F.SG	Greece.GEN
ēttēthéis		tē=	mákhē	apekhōrei	
defeat.AOR.PSV.PTCP.NOM.M.SG		the.DAT.F.SG	battle.DAT.SG	go.away.IMPF.3SG	
légetai					
say.3SG.PSV					

“Hence Xerxes, when from Greece, defeated in battle, went away, is said [...]”

<sup>48</sup>Haegeman (2010, p 597)

Therefore, we could claim that the truncation account can be adopted but limited only to certain kind of central adverbial clauses, namely those with the feature [-realis].

The major counter-argument against this proposal would certainly be that truncation in the structure should only apply from one point downwards or upwards, while in our analysis it seems that a middle portion of the structure has been cut off. However, this is not the case: the truncation cuts all the structure from FinP upwards, because the Sub projection is not part of the subordinate clause, but instead of the main clause. This is claimed in Schreiber (2010), where it is argued that the complementiser is actually part of the main clause, merging in a Spec position, then selecting a subordinate clause with the possibility of doubling itself. Therefore, a truncation as the one we have dealt with would not cut a middle portion of the structure.

### **The intervention account**

Since Haegeman herself has moved on to support this account, we can not refrain from discussing it.

As already mentioned, to the author this account is preferable due to the fact that it does not set a remarkable difference between central adverbial clauses and peripheral adverbial clauses or root clauses: the reference to Relativized Minimality is an elegant solution, though it does leave us with the questions of the Polarity projection and of the possibility of adjunct topicalizations, both of which would allow AG subordinate subjunctive clauses to have material between SubP (the complementiser) and FinP ( $\check{\nu}$ ).

The former issue seems to be the easier to tackle. We have claimed in §4.1.2 that a Polarity projection is needed to derive the frequent Focus of negation cooccurring with  $\check{\nu}$ ; however, since the focalisation has been declared incompatible with central adverbial clauses by Haegeman herself, since it presupposes the existence of the focused material (which is not the case for central adverbial clauses), we could simply argue that negation can not be focussed and therefore PolP is not occupied by the raised negation. Furthermore, the Polarity of a clause represents its truth value, but since central adverbial clauses do not have a proper truth value (they only set the conditions in which the truth value of the main clause must be valued), the Polarity projection is simply always silent in this kind of clauses.

The topicalization issue is harder to deal with. Two possible ways to a solution are postulating that  $\check{\nu}$  occupies a position higher than TopP or seeking a restriction on the use of Topics.

There are heavy issues also with the first solution. We would have to find a projection higher than Topic in the left periphery: it can not be SubP, of course, since it is dedicated to

the subordinating element; it also can not be ForceP, first because it must be silent in central adverbial clauses, according to the intervention account, second because we would have to explain why it would not be accessible to  $\check{\nu}$  in root clauses, in which it represents the root node and would cause  $\check{\nu}$  to appear first in a sentence, which it never does.

The only way to pursue then is to theorize a new projection between ForceP and TopicP: needless to say that this would be a huge claim. The structure of the left periphery is already wildly accepted and adopted as it is, especially the Force > Top > Foc succession, since it reveals as incredibly handy and applicable to countless languages: postulating a new projection only to explain a limited phenomenon in one language would be like shooting a cannonball in a crowd to kill a fly. Moreover, it would be yet to discuss the nature of this new projection: maybe a MoodP incorporated in the left periphery, paired with the MoodP in the functional projection, but we have already seen that this function is better performed by FinP, which collects all inflectional features of the verb (as mood) and select an according IP.

The second solution is harder than it looks: the intervention account has been developed by Haegeman exactly to explain the availability of adjunct Topics in central adverbial clauses, therefore we would have to find differences between her clauses and those in AG. We have already discussed this in the previous section: AG subjunctive subordinate clauses carry the feature [-realis]. However, if this could have direct consequences in the truncation account, it is not clear now why it should prevent adjunct topicalisation: the feature [-realis] and Topics do not clash in a Relativized Minimality sense, on which the whole account is built.

A more suitable way to deal with this issue is claiming that AG Topics are of a certain kind of Topic that is restricted to appear in main clauses only: Walkden (2013) states that in central conditional clauses in English the topicalization is not available since in English the left dislocation is of the Aboutness Topic kind, which presupposes the existence of the dislocated element, as much as the focalization process does; therefore, if AG Topics were all Aboutness Topic, they would not be available in central adverbial clauses. This is just a suggestion toward a solution that actually applies the intervention account to subjunctive subordinate clauses in AG, though it would require a much longer discussion.

In conclusion, the truncation account seems to be more easily suitable, once the due distinctions are made, while the intervention account is a fresher, more general explanation of central adverbial clauses, though it still has to be investigated.

### 4.3.3 Consequences and predictions

#### Comp + ᾗν cluster

As already mentioned in §3.2, the coalescence of ᾗν with the complementiser is arguably rooted in the lexicon. This means that within the subordinate clause this bimorphemic cluster is merged in a functional projection then moves to check the features corresponding to ᾗν and finally lands in SubP:

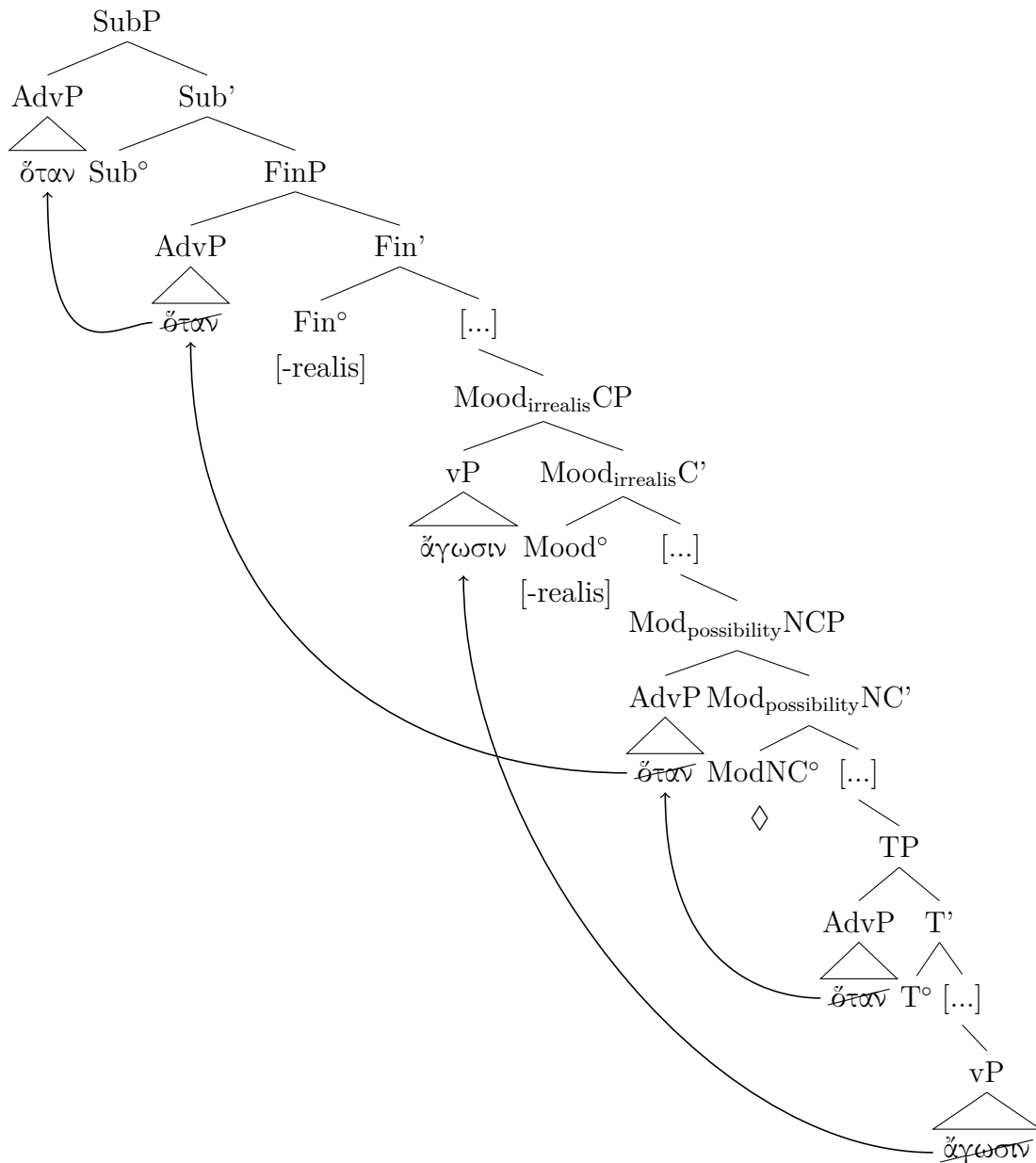
(40) [...] περιειλεῖν, ὅταν διὰ τῆς χιόνος ἄγωσιν.

*Xen. An. 4, V, 36*

perieilêin      hót(e)=an diá      tês      khiónos      ágōsin  
wrap.AOR.INF whenever through the.GEN.F.SG snow.GEN.SG procede

[...] wrap, whenever they would procede through the snow.

(41)



This accounts for the interaction of these complementisers with Wackernagel words: it happens frequently that these adverbial clauses are fronted in the root left periphery, where they encounter various discourse particles such as γάρ; according to Beschi, these particles move to their Spec position the first prosodic word on their right, which in these cases would be the material hosted in SpecSubP<sup>49</sup>. Therefore, we notice different behaviours when the complementiser coalesces with ἄν and when it does not.

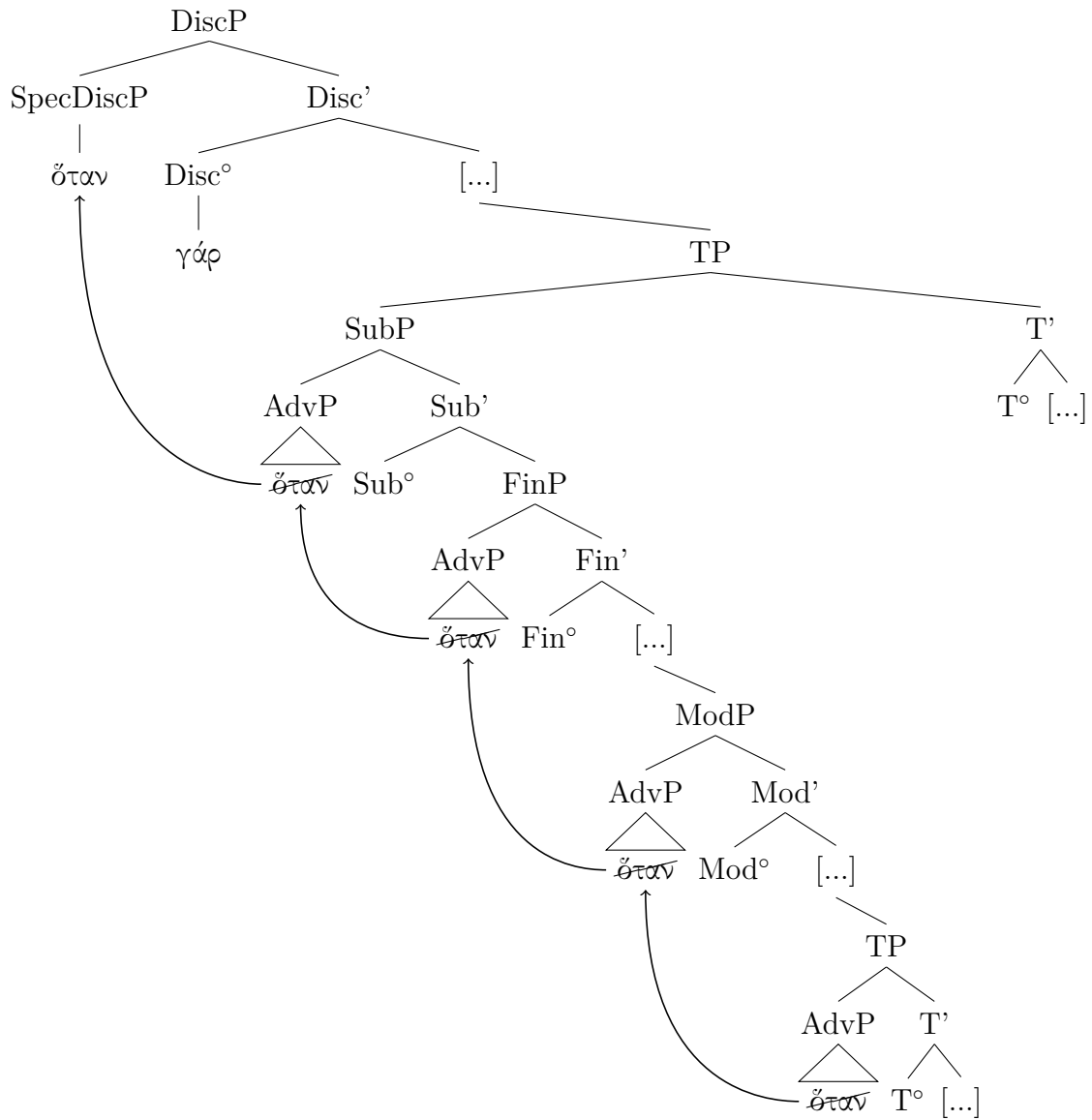
<sup>49</sup>Other elements in lower position of the subordinate clause would not be available since, according to Chomsky (2001), they would already be transferred to PF, leaving only the edge, SubP, to be accessible to the following phases.



(42) ὅταν γὰρ ἀκούω

*Plat. Symp. 215e*

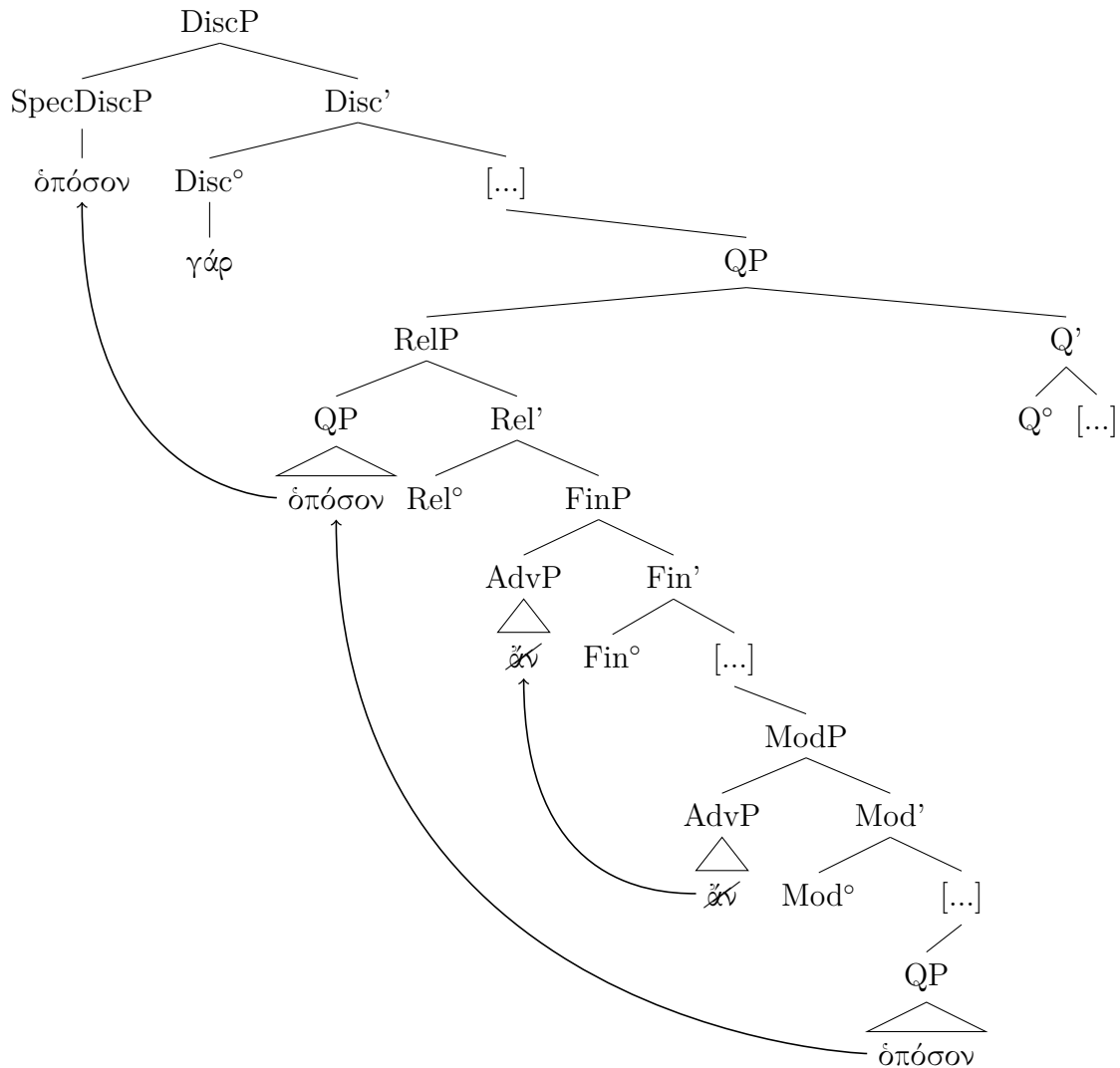
hot(e) =án gár < gár hot(e) =án (\*hote gár án)  
 C =AN DISC DISC C =AN C DISC AN



(43) ὅπόσον γὰρ ἂν κελεύη τις

*Plat. Symp. 214a*

hopóson gár án < gár hopóson án (\*hopóson án gár)  
 C DISC AN DISC C AN C AN DISC



As said before, these one-word movements take place in the left periphery, where these Discourse particles are located, therefore probably the interaction is possible thanks to a previous left dislocation of the subordinate clause.

### Relative clauses

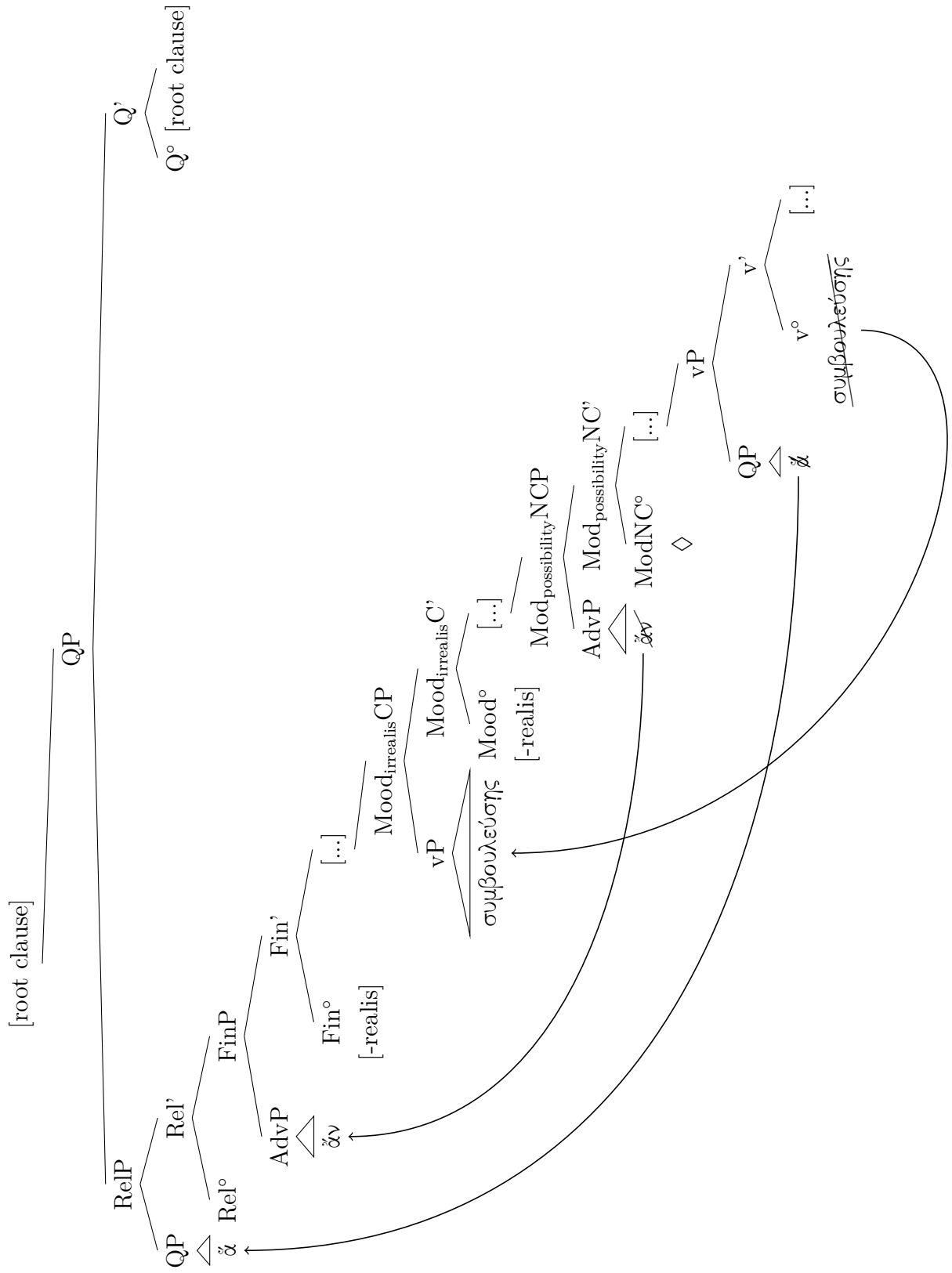
The last example gives us the opportunity to discuss relative pronouns: we must specify why they are included in this analysis of adverbial clauses, since they show similar behaviour. We have already seen that they modify the meaning of the root clause, as central adverbial clauses do, and they are also somewhat interchangeable with a conditional clause, since a conditional force is present within the relative. Thus we can argue that these clauses share the nature of both relative and conditional clauses. The difference with other adverbial clauses would be that both the selecting projection in the root clause and the merge projection in the

subordinate clause are DPs or QPs (generally nominal expressions) instead of IP functional projections; instead of a Sub projection linking the two clauses we will use a Rel projection, with the similar function to link two clauses over the same constituent.

(44) [...] ἀνάγκη λέγεσθαι ἃ ἂν συμβουλεύσης. *Xen. An. 2, I, 17*

anánkē légesthai há =án symbuléusēs  
 necessity.NOM.SG say.INF.PSV REL.ACC.N.PL AN advise.AOR.SUBJ.2SG

“[...] It is inevitable for whatever you advise to be talked about.”



### Other conditional constructions

Though conditionals are the predominant clause types within the possible subjunctive subordinate with  $\check{\nu}$ , it should be clarified what are the differences between these conditionals and other types, which the literature has classified as being four:

	TYPE	PROTASIS	APODOSIS
	reality	$\epsilon\acute{\iota}$ + indicative	indicative
(45)	eventuality	$\epsilon\acute{\iota}$ + $\check{\nu}$ (= $\epsilon\acute{\alpha}\nu$ ) + subjunctive	indicative
	possibility	$\epsilon\acute{\iota}$ + optative	$\check{\nu}$ + optative
	unreality	$\epsilon\acute{\iota}$ + impf/aor indicative	$\check{\nu}$ + impf/aor indicative

The differences may reside mainly in the apodosis, which is the selector of the conditional: the first two types (the second being that we have analysed in the section before) contain the verb at the indicative mood (or, if the apodosis is not the main clause in the sentence, the proper mood according to the clause type), while the last two types present the construction  $\check{\nu}$  + optative or past tenses of the indicative that is well attested also outside conditional contexts.

This means that in the reality and eventuality periods the apodosis is felt as belonging to the actual world:

- in the first type the apodosis is known to be true as it depends on a conditional which also is known to be true, therefore there are no indication of non-reality whatsoever;
- in the second type the apodosis is known to be true as a general statement, on the condition that what is expressed in the protasis is true, therefore, though belonging to the *realis* domain, the root clause selects a conditional bearing the [-realis] feature, hence the presence of  $\check{\nu}$  and the subjunctive.

In the other two types, the domain of reference of the apodosis is not the actual world any more, but rather all possible worlds, as indicated by the presence of  $\check{\alpha}\nu$ ; therefore, whenever they select a conditional, it is not required that it bears a [-realis] feature to extend the domain of reference, since this has already been widened. As always, the past tenses of the indicative bear an exclusion morpheme which sets the reference to all possible worlds except the actual one, hence the “unreality” period in contrast with the “possibility” period represented by the optative; also, the mood in the subordinate simply agrees with the mood of the selector.

### Subjunctive subordinate clauses without $\check{\alpha}\nu$

In §4.3.1 we decided to leave final clauses out of the analysis due to their peripheral nature; as a matter of fact, the majority of final clauses in AG is introduced by the complementiser  $\check{\iota}\nu\alpha$  (which probably originated as a locative adverb) and contain the subjunctive without  $\check{\alpha}\nu$ .

As we already claimed, final clauses are not central adverbial clauses since they do not modify the root clause, but rather they add background information, in this case to what aim the statement in the main clause is intended to be directed (hence the locative adverb).

The *non-realis* nature of the final clause is not dictated by the root clause: it is instead a proper feature of this clause type itself. Let us remind that the subjunctive mood in AG originated with the idea of futurity encoded; a final clause, furthermore, by its own nature refers to a time that follows the moment of the root clause, therefore presents a feature [-realis] which in this case does not refer to a widened domain of possible worlds, but rather of moments that have yet to occur. Hence, the subjunctive mood is selected but without  $\check{\alpha}\nu$ , because there is no need for the feature [-realis] to be visible in FinP as in all other subjunctive subordinate clauses.

As a matter of fact, the vast majority of final clauses, introduced mostly by  $\check{\iota}\nu\alpha$ ,  $\check{\omicron}\pi\omega\varsigma$  and  $\check{\omega}\varsigma$  do not contain  $\check{\alpha}\nu$ . However, there are some cases in our corpus in which the last two may present to configuration COMP -  $\check{\alpha}\nu$  - SUBJ: these represent final clauses in which the possibility to achieve the goal is considered uncertain; that means that the achievement of the goal is not necessarily true in the actual world as much as in a possible world, a domain which, as we have seen many times, is expressed by the presence of  $\check{\alpha}\nu$ . Therefore, as the construction  $\check{\alpha}\nu$  + optative can have the mood changed if the clause type requires an infinitive or a participle, it must be the same for final clauses, which require the subjunctive mood. The position of  $\check{\alpha}\nu$  in these final clauses, on the immediate right of the complementiser, can be justified by analogy with all other subjunctive subordinate clauses.

### The low periphery

After this analysis, we present two of the possible predictions following this account. The first one has been anticipated above: if the truncation hypothesis is to be adopted, there can not be Topic and Focus projections in the left periphery; however, in these clauses it seems as constituent fronting is still somehow possible.

(46) ὁπως ἂν τὴν μὲν ἡδονὴν αὐτοῦ καρπώσῃται. *Plat. Symp. 187e*

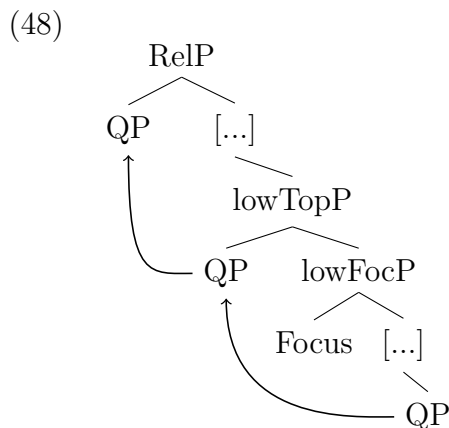
hópōs =án tén =mén ēdonēn autû  
 COMP AN the.ACC.F.SG TOP-PART pleasure.ACC that.GEN.M.SG  
 karpōsetai  
 take.AOR.SUBJ.3SG.M

“In order that he takes the pleasure of it.”

We argue that this happens thanks to the presence of a low periphery as claimed by Belletti (2004): she claims that above the vP are located some Topic and Focus projections that resemble those in the left periphery in their features.

(47) [<sub>SubP</sub> hópōs [<sub>FinP</sub> =án [<sub>MoodP</sub>[<sub>vP</sub>[<sub>TopP</sub> tēn =mén ēdonēn autû] karpōsētai]]]]

Being located lower than the functional field, these position do not intervene in the fronting in the complementisers of adverbial clauses. The only case in which they could represent an issue is in relative clauses, where the relative element is merged within the vP: this means that the presence of material in the lower Focus would interfere with the extraction of the relative towards FinP. This problem can be solved by having the relative raise first to the lower periphery, then be targeted by the adverbial fronting.



This account would also respect the restriction imposed by Chomsky’s Phase Theory, according to whom the vP represents a phase and the only material in it accessible to higher phases is located in the edge, which is therefore this low periphery.

### The prosody of ἄν

In Goldstein (2016) it is argued that ἄν is a postpositive clitic, which means that it is a phonological word that attaches to another on its left to form a phonological word<sup>50</sup>. In Beschi (2011) we have seen that these clitics move the first word at their right toward their Spec position, an analysis that accounts well for the existence of Wackernagel words.

The problem for our analysis is that ἄν in subjunctive subordinate clauses must not move any material toward its Spec position, otherwise we would always find the sequence COMP - WORD - ἄν. Since this is never the case, we have to argue that ἄν is not a postpositive clitic.

These clitics have the ability to intervene even within constituents, as shown by the behaviour of the Focus marker γε:

- (49) [...] ἐπεὶ τοῖς **γε** ῥήμασιν οὐ καλῶς λέγει. *Plat. Symp. 187a*

epéi tōis =ge hrēmasin ū= kalōs légei  
 COMP the.DAT.M.PL FOC-MARK expression.DAT.PL NEG well say.3SG

“[...] beside the fact that he does not say it well in his expressions.”

In this passage, the Focus marker is located between the article (τοῖς) and its noun (ῥήμασιν). On the other hand, ἄν never shows this behaviour. It may seem so in some sentences in which a negative quantifier is raised to become the polarity focus of the clause and ἄν appears between negation and the indefinite<sup>51</sup>:

- (50) ἴσμεν ὅτι οὐδ’ ἄν εἷς ἐξαρνηθεῖη. *Plat. Symp. 192e*

ísmen hóti ūd(é) =án hēis exarnēthēiē  
 see.PF.1PL(=know) COMP NEG AN one.NOM.M.SG withdraw.AOR.OPT.3SG.PSV

“We know that no one would withdraw.”

These cases may be explained claiming that ἄν too forces the first prosodic word to its right to move to its left; however, if the negative quantifier is to be treated as two separate prosodic elements, this does not justify the fact that we find whole negative quantifiers at the left of ἄν:

- (51) ἐπίστευε **μηδέν** ἄν [...] παθεῖν. *Xen. An. 1, IX, 8*

epísteuē mēdén =án pathêin  
 trust.IMPF.3SG NEG.INDEF.ACC.N.SG AN suffer.AOR.INF

<sup>50</sup>Goldstein (2016, p 50)

<sup>51</sup>In AG negative quantifiers are compounds formed by a negative adverb, οὐδέ or μηδέ and an indefinite, εἷς «one» or τις «someone».



“He trusted not to suffer anything [...]”.

Therefore, this simply means that in the process of raising the negative element may or may not remain attached to the indefinite element.

One further attempt at preserving the leftward movement caused by  $\check{\nu}$  could be stating that negative quantifiers are variable in their prosodic nature, being sometimes one whole prosodic word, as in (51), sometimes two separate entities, as in (50). This however would not explain why we can find whole constituents, formed by multiple prosodic words, with  $\check{\nu}$  located to their right and not between the first and the second word:

(52) εὖ οἶδα ὅτι πολὺ μείζον ἄν ἀχθοίμην. *Plat. Symp. 216c*

êu ôida    hóti    **polý mēizon** =án akhthóimēn  
well see.PF.1SG(=know) COMP much more    AN    suffer.OPT.1SG.MID

“I know well that I would suffer much more”.

In this case we have to assume that  $\check{\nu}$  forces the movement of two prosodic elements to its left or, as we will argue, none whatsoever.

The last claim in favour of its clitic nature is the restriction that never does  $\check{\nu}$  appear as first word of a sentence. However, we have established that when  $\check{\nu}$  is located in FinP there is always either a complementiser or a negative element to its left. As for when  $\check{\nu}$  is located within the functional field, we could easily claim that there might be a restriction in AG that there always be some material in the left periphery of the root clause, either in a Topic or a Focus projection, as a pragmatic rule: we do not possess the time nor the material to debate this claim, though it should seem reasonable to any AG scholar which has experienced the high mobility of constituents in this language.

Thus, the restriction that  $\check{\nu}$  can never begin a sentence seems only a mere consequence of its syntactic distribution, therefore we argue that the prosodic nature of  $\check{\nu}$  is not important to determine its position.



# Conclusions

We have seen that the semantics of  $\check{\nu}$  is that of a modal operator of possibility: this explains its distribution with the optative and the past tenses of the indicative, providing a potential or an unreal force. Its semantics presupposes also the presence of a more general feature [-realis] encoded in  $\check{\nu}$ .

Therefore,  $\check{\nu}$  should be treated as an AdvP which merges in the Spec position of the Possibility Modality non-core projection ( $\text{Mod}_{\text{possibility}}\text{NCP}$ ) within the IP functional field, from where it may rise to the Epistemic Modality projection or higher in the CP layer, particularly in FinP following the Focus of a negative element.

The accessibility of FinP to  $\check{\nu}$  is widely compatible with its distribution in subjunctive subordinate clause, which we have linked to Haegeman's analysis of the left periphery in central adverbial clause: it is left open to discussion and further analysis whether the truncation account or the intervention account is to be followed.

One last conclusion that we want to remark here is that prosody is not necessary to explain the distribution of  $\check{\nu}$ : its clitic nature is not connected to its syntactic behaviours, thus we could expect that also other phenomena related to other so-called particles may be studied and discussed within a syntactic domain.



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