

REVISITING FLOATING QUANTIFIERS:
THE SYNTAX OF THE MODERN GREEK *OLA*

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Abstract

This work is a contribution to the long-standing debate on the floating quantifier phenomenon in syntax and semantics. It investigates the properties of the Modern Greek floating quantifier *ola* ‘all’, to determine whether it belongs to the nominal or the verbal domain, and to provide an answer to the enduring question of *how* floating questions are generated.

Regarding its categorial status, it is argued that *ola* is a quantifier that is part of the DP extended projection, based on evidence from its syntactic behavior. With respect to *floating*, the fundamental argument is that it is a product of split PF and LF privileging of copies of the *ola*-phrase. Split privileging redefines the labor carried out by each component. Syntax is responsible for the movement of the QP, composed of *ola* and its DP restriction, and the interfaces are each tasked with activating either one or both QP copies. Consequently, LF-movement for scope assignment is dispensed with, and the PF rule *pronounce higher copy* now co-exists with additional spellout options.

There is a considerable amount of research dedicated to determining how syntax interacts with the interfaces. Bobaljik (2002) and Tsoulas and Yeo (2017) present arguments in favor of minimizing the labor of covert syntax, and Boskovic and Nunes (2007) argue for a computational mechanism where more than one chain link can be active at each interface. This study is aligned with these efforts, and extends this line of argument to capture the floating quantifier phenomenon involved in constructions with *ola*.

Contents

Abstract	2
Acknowledgments	5
Declaration	8
1 Introduction	9
1.1 The issue	9
1.2 Previous analyses	11
1.3 The current work	16
2 Determining the basic properties of <i>ola</i>	18
2.1 The syntactic properties of <i>ola</i>	18
2.1.1 Morphological agreement	18
2.1.2 Constituency tests	19
2.1.3 Additional evidence against an adverbial status	21
2.2 Its categorial status	23
2.2.1 Is it an adjective?	23
2.2.2 Is it a quantifier?	25
2.3 The structure of the QP	27
2.4 Interim conclusions	27
3 The syntax of <i>ola</i> and floating	29
3.1 Defining the floating phenomenon	29

3.2	Some possible analyses	31
3.2.1	EPP satisfaction via head movement	31
3.2.2	Tsoulas (2003): base-generation as an overt marker of scope	36
3.2.3	Fanselow and Cavar (2002): deriving XP-split constructions	39
3.3	Further syntactic motivation	43
3.3.1	An observation on QP landing sites	43
3.3.2	Movement patterns: <i>ola</i> in A and A'-positions	44
3.4	The proposed analysis: movement and split privileging	50
3.4.1	The role of copy theory and movement	52
3.4.2	Defining <i>split privileging</i>	54
3.4.3	Applying the mechanism	55
3.4.4	A possible analysis: Boskovic and Nunes (2007)	61
3.4.5	Interim conclusions	64
4	The semantics of <i>ola</i> and floating	66
4.1	Scopal activity	67
4.1.1	<i>Ola</i> and distributivity	68
4.1.2	<i>Ola</i> in interactions with negation and modality	69
4.2	Interim summary	75
4.3	The proposed analysis: an adaptation of Beghelli and Stowell (1997)	76
4.3.1	Some clarifications and some potential problems	85
5	Discussion	89
5.1	Problems and shortcomings	90
5.1.1	The semantic contribution of <i>ola</i>	90
5.1.2	Constraining privileging: the problem of overgeneration	91
	Bibliography	94

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Declaration

I declare that this thesis is a presentation of my own, original work, and that the use of all material from other sources has been properly and fully acknowledged. This work has not previously been presented for an award at this, or any other, University.

Chapter 1

Introduction

1.1 The issue

The floating quantifier phenomenon has been in the epicenter of syntactic and semantic research since the late 70's (see, for example, [Sag, 1978](#)). Within syntax, it has occupied the theory in two ways. Floating quantifiers have been used as motivation for the VP-internal subject hypothesis ([Koopman and Sportiche, 1987](#); [Miyagawa, 2017](#); [Sportiche, 1988](#)) and the concomitant need for a surface position for subjects. In addition, many linguists have undertaken research that focuses solely on describing the elusive nature of this phenomenon. However, what floating quantifiers diagnose depends largely on what properties are attributed to them. For example, if we assume that a floating quantifier forms a constituent with the subject DP, this lends itself as support for the VP-internal subject hypothesis and as a diagnostic for subject movement, since the quantifier can appear at a distance from the subject, presumably stranded in a position adjacent to a DP copy. If, however, we follow the analysis that it is some sort of adverbial ([Dowty and Brodie, 1984](#); [Link, 1998](#)), the set of syntactic behaviors it diagnoses and the analysis that it provides support for is entirely different. In this latter case, it may potentially show just how low adverbs can adjoin within the verbal spine, and what that would mean for a hierarchical, specifier-analysis of adverbs (as per [Cinque, 1999](#)).

This means that the present undertaking must include the following tripartition: first, it must show which kinds of analyses it abides by and which it departs from, and why. Second, it must lay out the issues and challenges that floating quantifiers bring about for both syntax and semantics, and provide an explanation for the majority of those in terms of Modern Greek. These two points constitute the level of descriptive adequacy of the analysis: what is and why is this the correct structural and semantic analysis of the floating quantifier phenomenon in this particular language. Third, it must align itself with the broader picture of syntactic and semantic theory, for its use as a diagnostic. Indirectly, this last condition tentatively feeds the search for explanatory adequacy; to wit, why language users opt for this particular construction and analysis.

Within the study of syntax, the core problem that floating quantifiers (henceforward FQs) pose is their freedom. The mirror image of this in syntax is conditions of locality, with respect to which FQs misbehave (see Miyagawa, 2017, for discussion). Take the following Modern Greek sentence, for example; it shows that the FQ *ola* ‘all’ can appear in multiple positions within the sentence, with few being somewhat marked and only one ungrammatical (1):

- (1) (Mexri to Savato,) (ol-a) ta peðj-a (ola) tha (*ola) exun (ola) ðokimasi (ola)
 Until the Saturday all the children (all) will all have all tried all
 susi (ola).
 sushi all
By Saturday, the kids will all have tried/tasted sushi.

This induces a couple of questions:

- (2) a. What locality requirements are in place for an FQ and the element it is associated with and quantifies over?
 b. What sequence of operations do these requirements trigger? For example, do the long-distance surface configurations require Internal Merge, or is Agree sufficient?

1.2 Previous analyses

In the literature, there is ample work on this phenomenon. The purpose of this thesis is not to survey previous proposals; however, a brief summary of the two main camps of FQ literature is put forth below, covering some important intuitions.

In their majority, the proposed analyses align themselves with one of the two camps: FQs are either part of the nominal domain, or part of the verbal spine. Influential work in the former camp is by Sportiche (1988), and by Dowty and Brodie (1984) within the latter. The intuitions that are shared by both camps, at varying extents, are the following.

Firstly, FQs may be linearly adjacent to a DP [FQ DP VP], or *float*ed from it, where the FQ is non-adjacent to the DP and is found in various positions along the clausal spine. Secondly, agreement morphology on the FQ tends to match the element the FQ is associated with. There is case, gender and number agreement between the FQ and a DP in several languages; this is the case for French (3a), Spanish (3b), Greek (4a), and Romanian (4b), amongst others. English, on the other hand, has very little agreement morphology in the nominal domain. FQs are morphologically constant (3c).

- (3) a. Toutes les filles sont allées au cinéma.
All.FEM.PL the.FEM.PL girls.FEM.PL are gone to-the cinema
- b. Todas las chicas fueron al cine.
All.FEM.PL the.FEM.PL girls.FEM.PL went to-the cinema
- c. All the girls went to the cinema.
- (4) a. Ola ta trapezja ine vromika.
All.NEUT.PL the.NEUT.PL table.NEUT.PL are dirty.NEUT.PL
- b. Toate mesele sunt murdare.
All.FEM.PL table.DEF.FEM.PL are dirty.FEM
All the tables are dirty.

Thirdly, the distribution of FQs is free enough to bring about a divide based on locality, but restricted enough to maintain clause-boundedness and resemble anaphor-like locality

conditions, in certain cases. According to Sportiche (1988), in French the FQ must be c-commanded by the DP ((5a) and (5b)), just like anaphors must be c-commanded by their antecedent. Also, the two cannot be separated by a clausal boundary (5c).

- (5) a. [L'autor de tous ces livres] a vu ce film.
The-author of all these books has seen this movie
- b. *[L'autor de ces livres] a tous vu ce film.
The-author of these books has all seen this movie
The author of all these books has seen this movie.
- c. *Les enfants l'ont persuadé [de tous acheter ce livre].
The children him-have persuaded C all buy this book
(All) the children persuaded him to buy this book. (Sportiche, 1988, p.432)

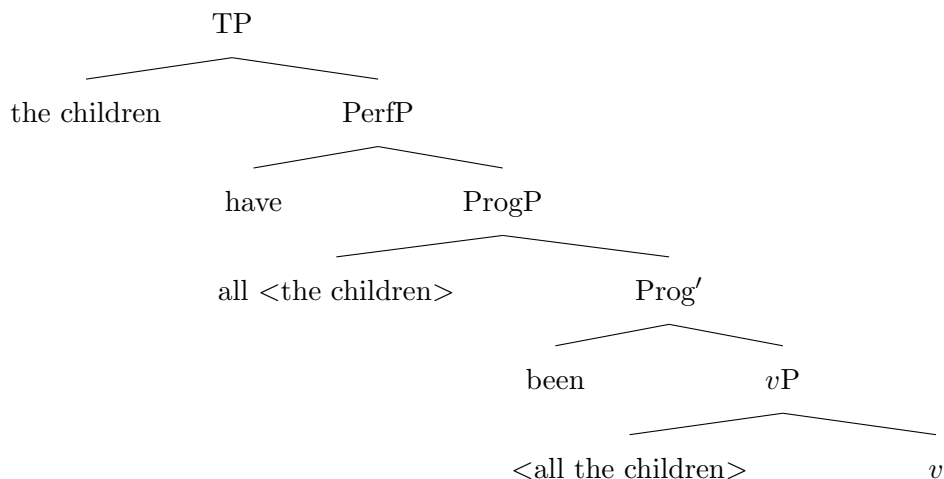
In his work, Sportiche (1988), in addition to their floated distribution, morphological agreement with the DP for French, and their anaphor-like locality conditions, also observes that floating constructions¹ and [FQ DP VP] constructions are closely paraphrasable. He argues that this is supporting evidence for the underlying constituency between FQ and DP and for a transformational relationship between them even in floating constructions; if an [FQ DP aux VP] configuration yields the same interpretation as, say, a [DP aux FQ VP] one, then transformationally there must be a connection between them. However, in semantics it is known that identical truth-conditions do not necessarily entail identical composition. In other words, sentences that have a common underlying meaning must not necessarily mean that they were put together in the same way; parity in meaning does not always entail underlying constituency. This paraphrasability is therefore relevant to both camps, and is not a strong diagnostic in favor of Sportiche's analysis.

These observations lead him to propose that the FQ is associated with a DP, and that the two enter the derivation as a constituent. In actuality, instances of 'Q-float' refer to the *stranding* of the quantifier in positions adjacent to the trace of the DP, as it moves from its VP-internal merge site to its surface position. He argues that every major projection in the verbal spine may contain a specifier position endowed with the ability to host NP copies,

¹That is to say, sentences where the FQ is linearly non-adjacent to its associated DP.

and that subject movement must indeed proceed through intermediate positions (see (6)); he extends this obligation to all kinds of DP displacement, including Theme movement in passives and raising constructions.

(6)



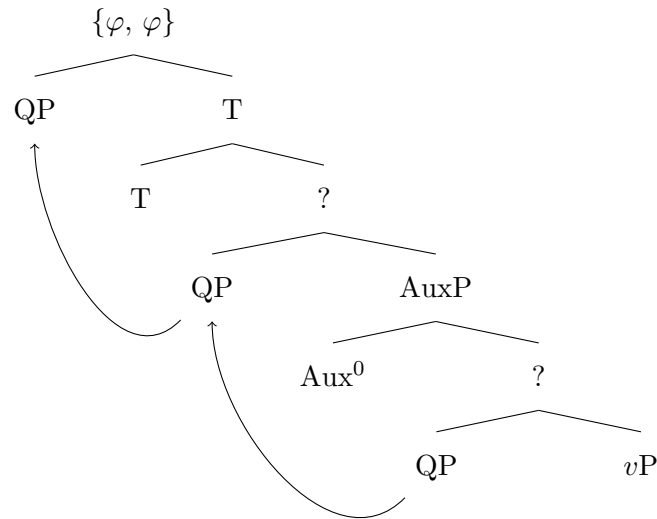
[Sportiche](#)'s account has advantages and shortcomings. He highlights the relevance of agreement morphology and locality conditions in the understanding of FQs, and builds a framework for languages where FQs and DPs share the same agreement morphology, something which is particularly relevant to Modern Greek.

The disadvantages of his account include the following (see also [Bobaljik, 1998](#); [Markopoulos and Sevdali, 2004](#); [Tsoulas, 2003](#), for discussion). Primarily, paraphrasability is assumed to be proof of underlying constituency. As discussed, this property does not *in itself* entail that this is the case. The useful intuition from this claim is that the pursuit of this option is not entirely futile, especially in a theory of grammar that makes use of transformations, given, of course, additional empirical evidence.

Moreover, no steadfast syntactic or semantic motivation for stranding is put forward. With the exception of Spec.vP and Spec.TP, remaining landing sites are not properly motivated. Derivationally, the sequence of movement involved can be theoretically motivated by a strict derivational theory like [Chomsky's \(2013; 2014\) labelling algorithm](#). At each step,

there is a labelling clash between the QP and its complement. As shown in (7), it moves to positions that yield a $\{XP, YP\}$ label, until it reaches the T projection. There, the agreement between T and the features of the QP allows for a $\{\varphi, \varphi\}$ label.

(7)



Although every movement of the QP is substantiated, the stranding of the FQ is not motivated. The problem of how to capture *stranding* remains.

On the other hand, [Dowty and Brodie \(1984\)](#) distinguish two types of FQs based on what they are adjacent to; [FQ DP VP] configurations involve a *determiner*-FQ whereas floating constructions involve a *VP*-FQ. The two have distinct logical types. This is a consequence of the compositional order by which they combine with the arguments of the predicate, which is crucial to their proposal, since it is couched in a transformationless framework. This proposal is supported by scope freezing effects.

In contexts where the FQ interacts with the negative and modal operators, the position of the FQ relative to these operators is telltale for wide scope if it is linearly to the left of the operator, and narrow scope if it is to its right (8). In other words, these operators act as the boundary that illustrates the linear correspondence between various FQ positions and

scope-taking, and therefore the need of distinguishing between *determiner*- and *VP*-FQs instantly becomes semantically necessary.

- (8) a. The students all didn't leave. $\forall > \neg$
 b. The students didn't all leave. $\neg > \forall$
 c. The contestants all can win. $\forall > \diamond$
 d. The contestants can all win. $\diamond > \forall$ (Dowty and Brodie, 1984, p.77)

Naturally, the Dowty and Brodie framework has certain benefits. Scope interactions and freezing effects are key to explaining how FQ sites are chosen, and may even be helpful in filling the gap created by the stranding analysis. Furthermore, it puts forth an alternative analysis which may be the correct one for languages like Dutch and Chinese, where *VP*-FQs and *determiner*-FQs are morphologically distinct:

- (9) a. De kinderen zijn allemaal gekomen.
 The children are all come
 b. Alle kinderen zijn gekomen.
 All children are come
The children have all come. (Doetjes, 1997, pp.210-11)

- (10) a. Ren dou zou le.
 People all left ASP
The people have all left.
 b. Suoyou de ren zou le.
 All PRT people left ASP
All the people have left. (Dowty and Brodie, 1984, p.82)

Its drawbacks include the following. First and foremost, it is their reliance on scope freezing effects. Scope freezing tends to be unreliable; it predicts clear narrow or wide scope based on the linear relation between an FQ and another scopally active operator, and it cannot explain sentences like (11) that are ambiguous between a wide and narrow scope interpretation.

(11) The student all didn't leave. $\neg > \forall, \forall > \neg$ (Dowty and Brodie, 1984, p.77)

Secondly, in a system using transformations, scope freezing does not *entail* the existence of two different FQs, much like paraphrasability does not entail underlying constituency. Rather, it may simply motivate the choice of particular landing sites over others. Consequently, it should not be used as the sole interpretational trigger for floating constructions.

Furthermore, being heavily focused on the semantic aspect, their account does not take into consideration the relevance of morphology. Morphological agreement from French, Spanish, Romanian, and Greek can be used to argue against a split-FQ system; in these languages, there appears to be only one FQ, and it is related to the nominal domain, based on its inflectional patterns (see (3) and (4)). But languages like Dutch and Mandarin Chinese can provide additional support to their argument, since the *determiner*- and the *VP*-FQ can be distinguished morphologically (see (9) and (10)).

In short, the intuitions we now have under our belt are the following: AGREEMENT MORPHOLOGY and LOCALITY CONDITIONS, as syntactic tools, are telltale in determining which element the FQ is associated with, and how strict their relationship is. When it comes to meaning and interpretation, PARAPHRASABILITY and SCOPE FREEZING EFFECTS do not have the theoretical entailments that they *prima facie* appear to have. Yet, they reveal paths of non-trivial enquiry, and are nonetheless useful diagnostics. The bottom line that emerges is that an account for FQs must be built on both syntactic and semantic grounds. The biggest problem with Sportiche (1988) and Dowty and Brodie (1984) is that each picks either syntax or semantics as its looking glass.

1.3 The current work

This thesis explores the floating phenomenon through the Greek quantifier *ola* 'all'. The investigation has a double purpose. It aims to fill a gap within Greek literature; syntactic aspects of quantification is a field that until recently has been understudied. We start by identifying the basic, micro-syntactic properties of *ola* in order to define it categorially and

structurally. In addition, this thesis reviews the floating phenomenon under a novel set of theoretical assumptions; in essence, it tests the ability of the proposed mechanism – an adaptation of [Beghelli and Stowell \(1997\)](#), [Bobaljik \(2002\)](#), and [Tsoulas and Yeo \(2017\)](#) – to capture the syntactic and interpretational properties of constructions with *ola*, a subset of which involve floating.

The organization of this work is as follows. In Chapter 2, some basic syntactic properties of the Greek FQ *ola* – morphological agreement, constituency, and distribution – are examined, in order to ascertain whether this particular FQ belongs to the nominal or the verbal extended projection, and to thereupon identify its category and structure.

Guided by questions that emerged in the previous chapter, chapter 3 continues exploring the syntactic behavior of *ola* in the context of floating constructions, before laying out the first half of the proposed framework. We review three accounts that appear to be capable of generating the four types of *ola*-constructions: head movement, base-generation ([Tsoulas, 2003](#)), and XP-splitting ([Fanselow and Cavar, 2002](#)). Each one is ruled out. Using insights from the rejected accounts and the movement patterns of *ola*-QPs as diagnostics, we outline our analysis. First, we discuss why copy-based movement is necessary. Next, we introduce a division of computational labor across the syntactic, semantic, and phonological components that is based on [Bobaljik \(2002\)](#) and [Tsoulas and Yeo \(2017\)](#); in more detail, all movement and structure-building occurs in syntax, and the interfaces are each responsible for realizing either the lower, the higher, or both copies for the purposes of interpretation and Spellout. Our proposal is then put to the test at the level of syntax.

Chapter 4 investigates certain semantic characteristics of *ola* constructions, in an attempt to explicate the copy privileging process that applies at the semantic component. Based on its scope-taking patterns in distributive and collective contexts, and its scopal interaction with operators like negation and modals, we develop the second part of our analysis. In outline, we further develop the syntactic structure of *ola* constructions, in a way that can represent the available scope readings.

Chapter 5 concludes this thesis; we put forth a summary of our findings and conclusions, a critical discussion of its shortcomings and of some remaining questions, and a few suggestions on the direction on further research.

Chapter 2

Determining the basic properties of *ola*

The discussion on *ola* must start with an overview of its foundational properties. First, we examine its morphological characteristics and its distribution within the sentence, in order to determine whether *ola* is DP- or VP-related. Next, we must test its distribution within the XP it is associated with, to establish its categorial status. If it is VP-related, what kind of adverbial is it? If it belongs to the extended projection of the DP, is it a quantifier or an adjective? In combination, these facts will help to determine the internal structure of the *ola*-phrase.

2.1 The syntactic properties of *ola*

2.1.1 Morphological agreement

Greek has rich morphological agreement in both the nominal and the verbal domains. Within the former, nouns inflect for case, number and gender. Determiners, adjectives, and quantifiers share either parts or all of this morphology:

- (1) a. Poles lijerokormes kopeles
 Many.FEM.PL svelte.FEM.PL girl.FEM.PL
 Many svelte girls

- b. Afta ta kala peđja
 These.NEUT.PL.NOM the.NEUT.PL.NOM good.NEUT.PL child.NEUT.PL.NOM
These good kids
- c. Tesaron koritsjon
 Four.GEN girl.NEUT.PL.GEN
Four girls (in genitive form)
- d. Tus adres
 The.MASC.PL.ACC man.MASC.PL.ACC
The men (in accusative form)

In constructions with *ola*, *ola* carries the same morphological specification as that of a nominal, regardless of whether it appears adjacent to or floated from it:

- (2) a. (*Oli*) *i* *maθites* ðokimasan (*oli*)
 All.MASC.PL.NOM the student.MASC.PL.NOM tried all.MASC.PL.NOM
 susi.
 sushi
The students all tried sushi.
- b. *Ola* o Manolis ta efaje ta *mila*.
 All.NEUT.PL the Manolis the.NEUT.PL ate the.NEUT.PL apple.NEUT.PL
It was Manolis that ate all the apples.

This shows clearly that *ola* is associated with a DP, be it the subject (2a) or object (2b) of the clause, irrespective of the distance between them. So far, overt shared features reveal a connection between *ola* and the nominal domain.

2.1.2 Constituency tests

Tests of constituency will demonstrate whether *ola* can be treated as an adverbial, or as part of the DP. Based on the morphological evidence, the prediction is that, underlyingly, *ola* and the DP are a constituent.

This prediction is borne out; (3) shows that coordination of two AdvPs is possible in Greek. However, treating *ola* as an adverb and having it partake in this kind of coordinated

structure results in ungrammaticality.

- (3) a. I maθites apaDisan stis erotisis [γriyora] ke [eksipna].
 The students answered in-the questions quickly and cleverly
The students answered the questions [quickly] and [intelligently].
- b. *I maθites apadisan stis erotisis [eksipna] ke [oli].
 The students answered in-the questions cleverly and all
 **The students answered the questions [intelligently] and [all].*

Coordination of two DPs, on the other hand, shows that *ola* forms a constituent with its associated DP:

- (4) [Oli i maθites] ke [i misi kaθijites] piyan ekθromi.
 All the students and the half teachers went excursion
[All the students] and [half of the teachers] went on an excursion.

(5) shows that a [*ola* DP] phrase can be substituted by the appropriate pro-form¹.

- (5) a. O Andreas epsaxne [oles tis meletes tu Chomsky] sti
 The Andreas searched-for all the-acc studies the-gen Chomsky in-the
 vivlioθiki.
 library
Andreas was looking for [all the papers by Chomsky] in the library.
- b. O Andreas [tis] epsaxne sti vivlioθiki.
 The Andreas CL searched-for in-the library
Andreas was looking for [them] in the library.

In short, constituency tests corroborate an *ola*-DP relationship, and provide evidence for

¹There are also sentences like (i), where *ola* appears without its DP but with the associated clitic.

- (i) O Andreas [tis] epsahne [oles] sti vivlioθiki.
 The Andreas CL searched-for all in-the library

A discussion of these constructions lies outside the scope of this thesis. The main issue here is clitic doubling, and how the clitic is related to the elided DP. For an analysis of this type of sentences, see Tsakali (2008).

their close relationship.

2.1.3 Additional evidence against an adverbial status

The arguments for a VP affiliation for *ola* are that (a) it appears in typical adverb positions along the clausal spine (Bobaljik, 1998, amongst others), and (b) that there are some adverbs that may appear in the DP.

In terms of the first claim, there are three arguments that can put it to rest. First, it is widely known that adverbs in Greek do not inflect morphologically for agreement. If *ola* had two manifestations as per Dowty and Brodie (1984), the VP version would be expected to have a single unchanging form (say, *ol-a*) and DP-*ola* to change in accordance with the noun. As shown below, this is ungrammatical:

- (6) *(Oles) i jinekes (*ola) θa ine (*ola) vamenes (*ola).*
 All.FEM.PL the woman.FEM.PL all.NEUT.PL will be all painted all
All the women will be wearing makeup.

Rather, the morphological evidence at hand shows that, in all its positions, *ola* agrees with the DP.

Secondly, what type of adverb would it be? Subject-oriented adverbs like *cleverly* are the most plausible (see Sportiche, 1988, for discussion).

- (7) *(Eksipna,) i maθites (eksipna) apadisan (eksipna) stin erotisi (eksipna).*
 Cleverly the students cleverly answered cleverly to-the question cleverly
 a. *It was a clever move by the students to answer the question.*
 b. *The students answered the question in a clever manner.*

- (8) *(Oli) i maθites (oli) apadisan (oli) stin erotisi (oli).*
 All the students all answered all to-the question (oli)
The students all answered the question.

However, as Cinque (1999) points out, when an adverb can surface in several positions,

it brings an attendant change in interpretation, based on what it scopes over. In (7) the two rightmost instances of the adverb *cleverly* scope over the entire proposition, and yield the interpretation in (a). When in the other two positions, *cleverly* behaves like a manner adverb, as shown in (b). We would thus expect *ola* to behave similarly. But, its interpretation is fixed (8). In other words, adverbs display a pattern of meaning-position correspondence, whereas *ola* shows no fluctuation in meaning in relation to position².

Thirdly, the landing sites of *ola* along the clausal spine appear to be typical adverb positions, but actually also correspond to DP positions. This is shown in (9). This freedom of movement for both *ola* and its DP is a concomitant of floating and the flexible word order of Greek. This will be discussed in more detail in chapter 3.

- (9) a. *Ta peđja* θa ixan (*ola*) xθes (*ola*) pai (*ola*) ekđromi (*ola*), an
 The children will have all yesterday all gone all excursion all if
 ðen...
 not
- b. *Ola* tha ixan (*ta peđja*) xθes (*ta peđja*) pai (*ta peđja*) ekđromi
 All will have the-children yesterday the-children gone the-children excursion
 (*ta peđja*), an den...
 the-children if not
- c. θa ixan (*ta peđja*) xθes (*ta peđja*) pai (*ta peđja*) ekđromi
 Will have the-children yesterday the-children gone the-children excursion
 (*ta peđja*) *ola*, an ðen...
 the-children all if not
The children would have all gone for an excursion yesterday, if not (for)...

The second claim, that some adverbs may appear in the DP, is partially settled by the fact that Greek adverbs do not participate in morphological agreement. If *ola* was an instance

²Cinque (1999) argues that, ideally, there should be a one-to-one correspondence between interpretation and structural position. It thus follows that, when an adverb can be found in several positions and has the same interpretation in all of them, its multiple possible sites follow from other elements moving around it, and not from the adverb having multiple base-generation sites. Although this could potentially explain the unchanging meaning of *ola*, an adverb analysis for this FQ is out for independent reasons, as shown by the current discussion. Therefore, this line of argument is not pursued.

of DP adverb, it would have to have an unchanging form, and this is not the case:

- (10) (**Ola*) i jinekes (**ola*) θa ine (**ola*) vamenes (**ola*).
 All.NEUT.PL the woman.FEM.PL all will be all painted all
All the women will be wearing makeup.

Moreover, the adverb which is often encountered within the DP, *tote* ‘then’, is temporal, and appears in the attributive position between the determiner and the noun. Both these properties make it different from *ola*, which cannot appear attributively (more on the latter point in the next section):

- (11) a. O tote proeðros kateklepse to kefaleo tis eterias.
 The then president robbed the fund of-the company
The then president embezzled the company’s funds.
- b. *I oli metoxi kateklepsan to kefaleo tis eterias.
 The all shareholders robbed the fund of-the company
**The all shareholders embezzled the company’s funds.*

In sum, in addition to morphological agreement and evidence for *ola*-DP constituency, we now have further arguments contra classifying *ola* as an adverb. Unlike Greek adverbs, *ola* undergoes morphological changes, it has a fixed meaning in all its sites, and it does not behave like other adverbs occurring in the DP. Moreover, there is evidence for its landing sites being DP landing sites, which will be explored further at a later point in this thesis.

2.2 Its categorial status

2.2.1 Is it an adjective?

At this juncture, there is substantial evidence for *ola* being part of the DP, but we have yet to determine its precise role. In general, quantifiers are analyzed as either adjectives or determiners. Based solely on the Greek patterns of morphological agreement, *ola* could

be either, since both agree overtly with the noun (see (1)).

Be that as it may, coordination suggests that an adjective account is problematic. The coordination of two APs is perfectly acceptable (12a), but when *ola* is treated as an AP conjunct, the resulting sentence is ungrammatical (12b).

- (12) a. I [kenurji] ke [aðeksii] ipalili ekanan pola laði.
 The new and clumsy employees did many mistakes
The new and clumsy employees made many mistakes.
- b. *I [oli] ke [kenurji] ipalili ekanan pola laði.
 The all and new employees did many mistakes
 **The all and new employees made many mistakes.*

Furthermore, the distribution of *ola* does not resemble that of adjectives, within and outside the DP. Adjectives in Greek canonically occur in attributive position, between D and *n*/NP, and do not appear post-nominally in definite contexts³ (13a). *Ola* cannot occur attributively, but it can be found post-nominally; this is diametrically opposed to the behavior of adjectives in definite DPs. Therefore, the right-adjacent position to the DP that hosts *ola* must be something else⁴. Moreover, *ola* cannot be used predicatively (13b).

- (13) a. Ta (nea/*ola) palikaria (*nea/ola) xorevan olo to vradi.
 The young/all lads young/all danced all the night
All the young lads danced all night long.
- b. Ta palikaria ine nea/*ola.
 The lads are young/all
*The lads are young/*all.*

Moreover, *ola* does not participate in *polydefiniteness* structures. (14) illustrates that *ola* is incompatible in a such a sentence, which is a typical construction for Greek adjectives

³Interestingly, in indefinite construals, adjectives can be either left- or right-adjoined:

(i) To (tipoyrafiko) laθos (*tipoyrafiko) / Kapjo (tipoyrafiko) laθos (tipoyrafiko)
 The typographical error typographical / some typographical error

⁴This is discussed further in section 3.4.3.

tives⁵.

- (14) *Ta ola ta jelasta ta peđja / *Ta jelasta ta ola ta peđja irθan.
 The all the cheery the children / The cheery the all the children came
All the cheery kids came.

(14) in conjunction with (12) and (13) illustrate that *ola* is dissimilar to adjectives. In closing, although accounts that analyze quantifiers as adjectives have some ground, evidence from its distribution demonstrate that *ola* is not an adjective.

2.2.2 Is it a quantifier?

In the literature, the status of determiners is subject to an ongoing debate; their presence and purpose within the nominal domain is disputed (see Alexopoulou et al., 2013; Chierchia, 1998, amongst others). Assuming that they are functions that generate syntactic objects with argument status out of nominal constituents (Chierchia, 1998), in the narrow sense, D heads are determiners. In a broader sense, they can be numerals, quantifiers, or articles – in essence, whatever a particular language wields for the purpose of making arguments. So, is *ola* a quantifier, or a determiner residing in D⁰?

One suggestion is that *ola* is a quantifier. This follows naturally from the observation that quantifiers and *ola* are in complementary distribution (15a). However, in Greek, most quantifiers take NP complements, and in the few contexts in which they co-occur with the definite determiner⁶, they never precede it (15b). Conversely, *ola* appears to take a DP complement, as it always co-occurs with and precedes a definite determiner (15c), which is undoubtedly a D-head (Adger, 2003).

⁵For literature on the polydefiniteness phenomenon, see amongst others Alexiadou (2001); Alexiadou and Wilder (1998); Kolliakou (2003); Markopoulos and Sevdali (2004).

⁶This [D_{DEFINITE} Q NP] combination is very restricted; for example, quantifiers like *kapjia* ‘some’ and *arketa* ‘several’ are incompatible in such a configuration. For the quantifiers that are compatible, the intuition is that, in such sentences, they are interpreted as adjectives. If this is indeed the case, this does not affect what we have argued for *ola* and the possibility of an adjectival status. It differs substantially from this set of quantifiers, and therefore an adjective analysis is once again confuted.

- (15) a. Oli (i) / Poli / Liji / Kapji kalesmeni ðen irθan.
 All the / many / few / some guests not come
All (the) / Many / Few / Some guests didn't show up.
- b. (Ta) pola/liya (*ta) peðja ine eftixia.
 The many/few the children are joy
To have many/few kids is blissful.
- c. (Oli) *(i) (*oli) kalesmeni irθan.
 All the all guests came
All the guests came.

In essence, there is reason to believe that *ola* has quantifier semantics, coming from the complementary distribution observed in (15a). Distributional evidence stands against categorizing *ola* as a typical quantifier that resides immediately above NP and below D. *Ola* obligatorily quantifies over a DP, with an overt definite in D⁰.

Consequently, the possibility of *ola* being a D-head is already challenged. It occupies a higher position; but how high is it? By looking at constructions with demonstratives, which in Greek must co-occur with and linearly precede the definite determiner in D⁰, it is evident that *ola* resides above even demonstratives:

- (16) (Oles) aftes (??/*oles) i (*oles) enstasis (*oles) tu Petru
 All these all the all protests all of-the Peter
All (of) these protests by Peter

These structural observations lead to the positing of a distinct Q(uantifier) projection for *ola*.

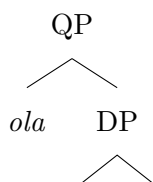
To sum up, morphological agreement, constituency and the ability to substitute *ola* with its DP in all of its positions point to a close relation between *ola* and the DP. Its distribution within the DP shows that *ola* is unlike other *low* quantifiers⁷, and also that it cannot be a D-head since it obligatorily co-occurs with the definite determiner that occupies D⁰.

⁷That is, quantifiers that surface between NP and D.

2.3 The structure of the QP

Structurally, there are certain relations between *ola* and the DP that must be captured. *Ola* must be an element in the extended projection of the DP that is nevertheless sufficiently ‘detached’ from it; it must form a constituent with the DP and strictly local to it for semantic locality between quantificational operator and restriction, but must also be restricted to the DP periphery. For these reasons, *ola* is represented as a Q-head which takes a DP as a complement and projects a QP:

(17)



(17) is the most appropriate structural candidate for the *ola*-phrase. Firstly, it ensures that *ola* asymmetrically c-commands the DP. Secondly, it establishes a head-complement configuration between the quantifier and its restriction, which guarantees type matching at a compositional level.

2.4 Interim conclusions

To conclude thus far, from our discussion of empirical facts and intuitions, there are several conclusions that can be drawn, and a number of concomitant questions that arise.

Our conclusions include the following. Firstly, there is substantial syntactic evidence from overt agreement, constituency tests, and distributional patterns that corroborates a connection between *ola* and the DP; in fact, they are merged into the structure as a constituent. Secondly, we have presented syntactic evidence showing that classifying *ola* as a modifying adjunct, either as an adverb or an adjective, is not viable for Greek. For adverbs, this

is corroborated by (a) the fact that, unlike adverbs, *ola* has an inconstant morphological form, (b) coordination tests showcasing that *ola* cannot be conjoined with an adverb, (c) its fixed meaning in all of its positions that shows no scopal sensitivity based on its c-command domain, which is something we expect from adverbs, and, crucially, (d) the observation that the landing sites of *ola* along the clausal spine correspond to DP landing sites. As a result, a split-FQ analysis à la Dowty and Brodie (1984), where *ola* has a VP- and a DP-related manifestation, cannot be the case. There is only one *ola*. On the other hand, for adjectives, this is shown from the fact that its distributional patterns within the DP are dissimilar to those of Greek adjectives, since *ola* cannot appear in a predicative or an attributive position, and cannot participate in polydefiniteness structures.

Lastly, we have pursued the remaining option, that *ola* is a quantifier, both syntactically and semantically. Its syntax demonstrates that it is in complementary distribution with other quantifying elements, but that it cannot occupy a position between D and *n*P, nor can it reside in D^0 . These observations lead to the proposed structure in (17), where *ola* heads a QP and selects for a DP complement.

Before closing, there are several consequential questions that have emerged and that must be answered:

- (18)
- a. What is the syntax of *floating constructions*? How does *ola* move out of the QP – are its dislocations a case of *stranding*, in the sense of Sportiche (1988)? Do they resemble X^0 or XP movement? Post-movement, what is the relationship between *ola* and its DP?
 - b. If *ola* is part of the DP constituent, it must partake in both A-movement, when its dislocation affects the TP domain, and in A'-movements. Is this indeed the case?
 - c. Is there semantic motivation that underpins floating constructions? If so, is it related to scope-taking?

These questions will guide the analysis presented in the chapter that follows.

Chapter 3

The syntax of *ola* and floating

Having determined that *ola* is related to the nominal domain, and forms a QP with a definite DP complement, we turn to the floating phenomenon.

First, we identify what constructions with *ola* look like. Are sentences with subject- and object-related *ola* different in terms of floating? Does the DP have to c-command *ola* in all instances of floating, or can the reverse, sc. *ola* asymmetrically c-commanding the DP, also be the case?

Next, we determine how the configurations of *ola*-constructions are produced. For this purpose, we inspect three possible analyses, before laying out the proposed analysis.

Our conclusions are summarized in section 3.4.5. In this section, we also lay out pertaining questions that are tackled in the ensuing chapter.

3.1 Defining the floating phenomenon

Floating is a term used to describe the phenomenon where a quantifier like *ola* appears in a linearly non-adjacent or even distant position to its associated DP. Typically, it can surface in a number of positions along the clausal skeleton. The crucial observation is that the locality domain between the floating quantifier and its DP is larger and more flexible

than that of anaphors, determiners, and other quantifiers.

With respect to *ola*, there are four attested configurations:

- (1) a. *Ola ta peđja efayan payoto.*
All the children ate ice-cream
- b. *O Manolis efaje ola ta mila.*
The Manolis ate all the apples
- (2) a. *Ta peđja ola efayan payoto.*
The children all ate ice-cream
- b. *O Manolis efaje ta mila ola.*
The Manolis ate the apples all
- (3) a. *Ta peđja efayan ola payoto. / Ola efayan ta peđja payoto.*
The children ate all ice-cream / All ate the children ice-cream
- b. *Ta mila ta efaje ola o Manolis. / Ola ta efaje ta mila o Manolis.*
The apples CL ate all the Manolis / All CL ate the Manolis the apples
- (4) a. *Ta peđja efayan payoto ola. / Ola efayan payoto ta peđja.*
The children ate ice-cream all / All ate ice-cream the children
- b. *Ta mila ta efaje o Manolis ola. / Ola ta efaje o Manolis ta mila.*
The apples CL ate the Manolis all / All CL ate the Manolis the apples

The configuration represented in (1) is [... *ola*+DP ...], where the QP surfaces either pre- or post-verbally. In (2), the elements of the QP appear in a different order: [... DP+Q ...]. Again the Q-phrase can be either a subject or an object. (3) and (4) exemplify the typical floating permutation [DP ... *ola* ...] for both subject and object QPs, and also display the reverse floating configuration [*ola* ... DP ...], a linearization that sets Greek apart from languages like English, which do not allow this pattern. In addition, they illustrate that for both Agent and Theme QPs, part of the QP surfaces in a sentence-final position.

Each construction gives rise to a number of questions:

- (5)
- a. Given that *ola* and its DP start as a constituent, what triggers the movement of the entire QP as in (1), versus the selective raising of *ola* or the DP as in (3), and why?
 - b. Considering that *ola* is not an adjective and thus cannot right-adjoin to the DP, how does *ola* appear immediately to the right of the DP in (2)?
 - c. Do all these configurations, and (4) in particular, result from the movement of *ola* or of its DP? Or are they an attendant byproduct of the free word order in Greek and the sequence of movements it involves?

3.2 Some possible analyses

3.2.1 EPP satisfaction via head movement

One possible account for the syntax of floating constructions involves head movement and EPP satisfaction; after all, the null hypothesis for the discontinuity of the QP constituent in floating configurations typically involves movement. *Ola* is a head, belonging to the extended projection of the DP. It seems reasonable to propose that floating constructions are instances of head movement for EPP satisfaction. Such an account sets out to answer the questions in (5a) and (5b) above, so let us entertain it briefly.

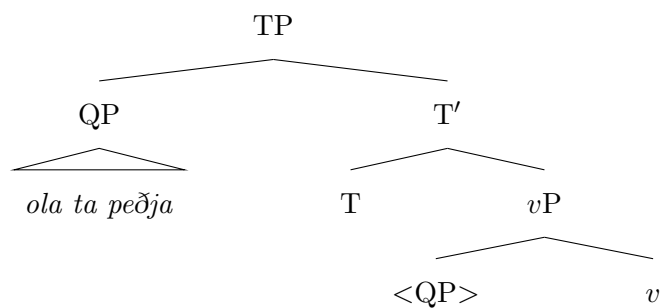
A framework making use of X^0 -movement must fulfill certain conditions. The first one concerns locality. X^0 -movement is quite restricted; this is formulated as the Head Movement Constraint, which bars heads from skipping intermediate ones as they move (Travis, 1984). This means that *ola*, usually starting from a VP-internal position, must raise in a step-by-step fashion. The second condition is related to the landing sites of the head as it moves along the clausal spine. According to the Uniformity Condition on Chains, a dislocated X^0 must adjoin to a head, while a raising XP must target a specifier position (Matushansky, 2006). These conditions come with corollaries of their own. Firstly, adjunction structures do not allow further extraction of the target, or the probe (Matushansky, 2006), unless the entire head-constituent, containing both the target and the probe, moves as a whole. This is why head movement is claimed to feed affixation; as the target moves,

it accumulates its probes and at Spellout, all are pronounced together at the final landing site of the target.

This means that, in floating constructions, *ola* must adjoin to every head until it reaches its probe and satisfies its EPP requirement, bringing along with it overt copies of the heads it has adjoined to¹. Moreover, for our purposes, it appears that the EPP can be satisfied either by a head or a phrase; in (1) the entire QP has moved and this must be explained via EPP satisfaction.

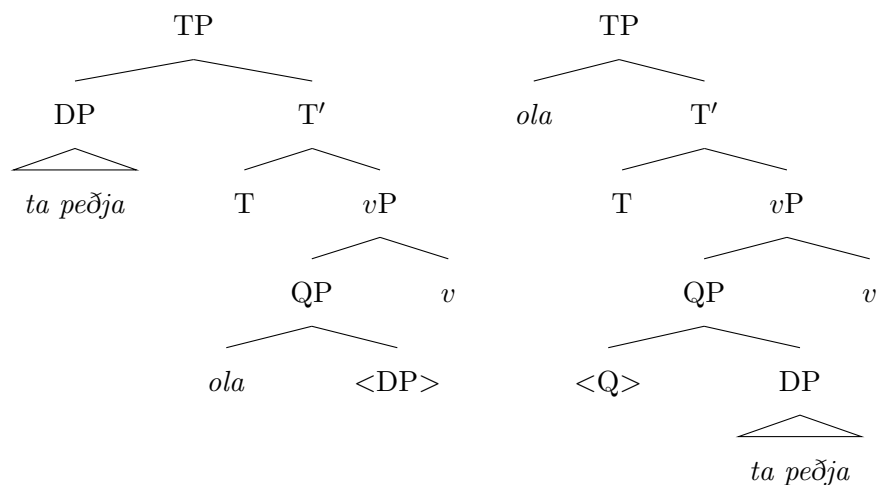
However, this analysis is unable to explain the empirical facts of configurations (1)-(4) above. It is evident that question (5a) is not answered fully. Why is the EPP selective in sometimes raising *ola*, sometimes the DP, and at times the entire QP? In (1a), the QP moves as a phrase (see (6)), whereas in (3) and (4) either *ola* undergoes head movement or the DP undergoes phrasal movement (see (7)). The stipulation that the EPP can be satisfied by either an X⁰ or an XP explains *how* these particular configurations are possible structurally, but does not give any reason as to *why* this happens.

(6)



(7)

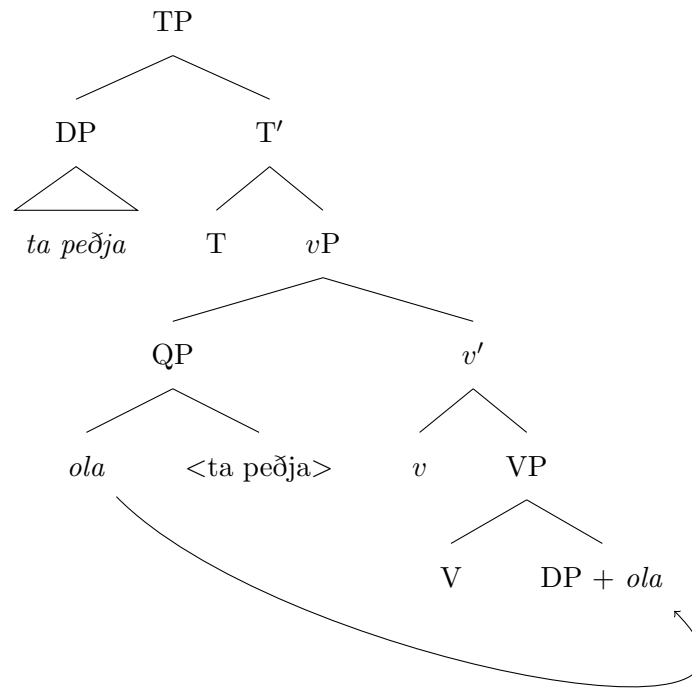
¹There are cases where the Head Movement Constraint and its attendant locality are violated; one example is the movement of an auxiliary over clausal negation, or other intervening verbal particles. There are also arguments for *long head movement* (Boskovic, 1997; Embick and Izvorski, 1995). It could be argued that *ola* is an instance of either of those two cases. However, such proposals face several problems, and are therefore avoided. For a lengthy discussion, see Matushansky (2006).



The configuration represented by (2) is mysterious. Does the DP move on its own to satisfy the EPP requirement of its probe, and then *ola* pied-pipes along? Or is this an instance of the QP moving as a whole? In this case, QP-internal movement must have reversed the order of *ola* and the DP. This is discussed further in section 3.4.3.

In configuration (4), the DP subject is targeted by the EPP and raises. However, there is an additional movement, represented in (8): *ola* is right-dislocated, appearing to the right of its base position (Spec,vP). Is this indeed the case? This question remains unanswered for the time being; there is a possibility that unrelated movements within the Greek clause, like verb raising, might contribute to the linearization of certain floating configurations like (4).

(8)

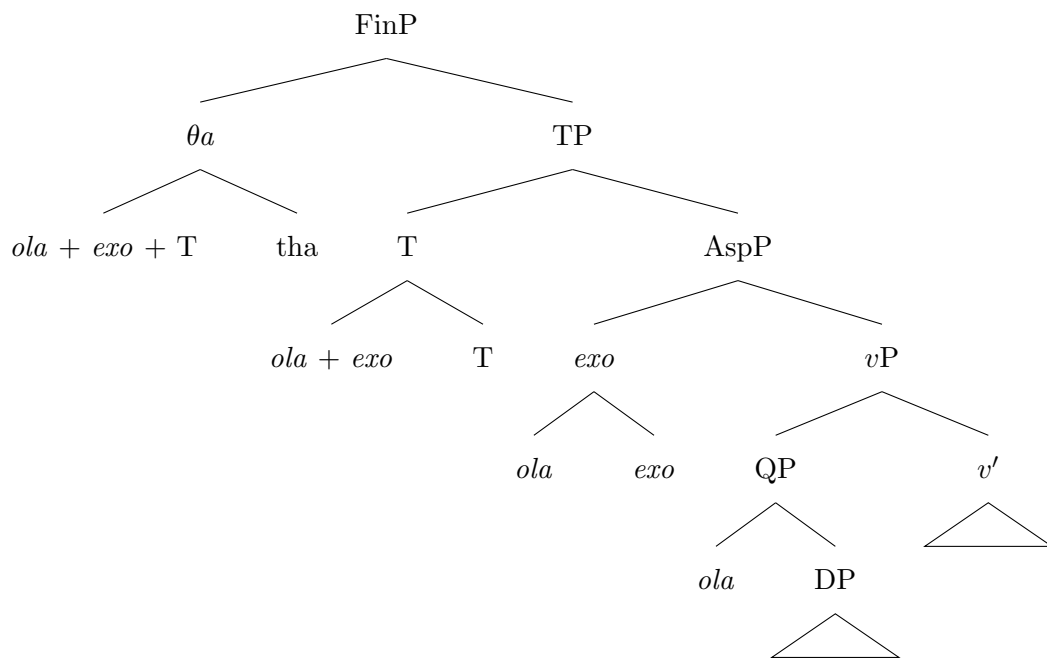


Furthermore, floating constructions do not behave as the theory of head movement predicts². To obviate illicit extraction, *ola* is expected to move together with the intermediate heads it adjoins to on its way to its probe, thereby feeding affixation. This is problematic for our data and our empirically motivated assumptions. First and foremost, *ola* belongs to the extended projection of the nominal; its stepwise percolation via every verbal projection does not follow naturally. Even if we were to entertain its categorization as an adverbial to justify this affiliation with the verbal domain, as an adjunct, it would be subject to a different set of movement constraints (see Cinque, 1999) and head movement would become irrelevant. Moreover, even if this issue is disregarded, given the clausal structure of

²We assume the standard theory of head-to-head movement that is based on *incorporation*; the successive cyclic movement of X^0 incorporates into the head located at its intermediate landing site, and as it moves further, it feeds affixation because it brings the intermediate head along with it. However, there is a counterpart to this process: *excorporation*, where one head ‘passes through’ another before moving on (Roberts, 1991). This type of X^0 -movement is not morphological like incorporation, since it does not feed affixation. This is a possible analysis for the floating phenomenon; an investigation in this direction is most welcome.

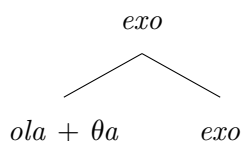
Greek (see Roussou, 2000), the structure in (9) would yield a sentence like (10a), where the Asp^0 *exo* ‘have’ linearly precedes the future auxiliary *tha* ‘will’ residing in Fin^0 . This order is ungrammatical, and the correct word order in (10b) cannot be captured, since it requires a head-adjunction structure like (11), which cannot be generated since *tha* always asymmetrically *c*-commands the *Asp* projection.

(9)



- (10) a. *Ola exun *tha* ta peđja fai.
All have will the children eaten
- b. Ola *tha* exun ta peđja fai.
All will have the children eaten

(11)



In short, a model using head movement for EPP satisfaction to motivate floating configurations is empirically inadequate, and is therefore ruled out. From this discussion, an important point has emerged. Independent processes of dislocation within Greek clauses might be an underlying cause to some of the floating configurations.

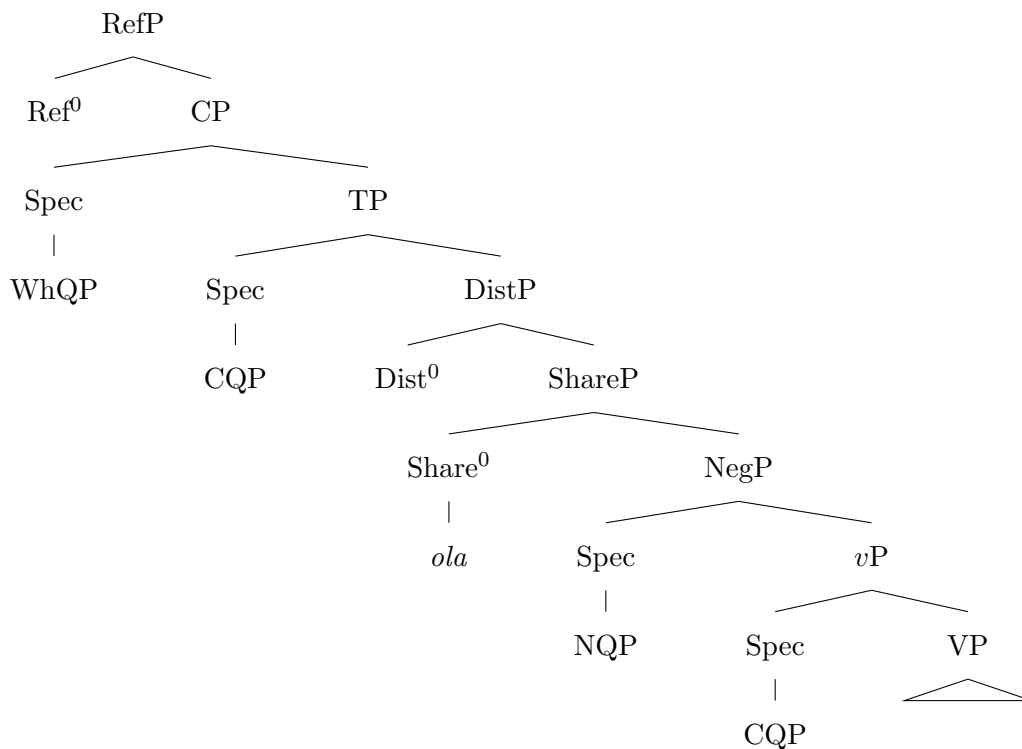
3.2.2 Tsoulas (2003): base-generation as an overt marker of scope

Taking a step towards the opposite direction, let us consider base-generation for a moment, as a possible candidate for explaining the behavior of *ola*. A framework where the floating quantifier is base-generated may have several benefits. Firstly, it may obviate problems induced by movement. In view of the X-movement described in the previous section, base-generation of *ola* would circumvent the strict locality conditions imposed by the Head Movement Constraint, and affixation feeding, the concomitant of the inability to simply extract heads. In terms of movement more generally, it can circumvent potential island violations. Second, it can accommodate a broader distribution than the one predicted by X-movement, granted that it sets forth some sort of locality constraint, or designated positions for *ola*.

A base-generation framework for floating quantifiers is developed in Tsoulas (2003). In this work, he observes that the DP associated with the floating quantifier takes scope at the surface position of the FQ. He therefore proposes that floating quantifiers are overt markers of scope. In detail, Tsoulas reclaims the idea that scope freezing at intermediate positions, viz. between the T and *v* projections, is a key property of floating quantifiers. Base-generation of the FQ, he argues, is able to capture this; reconstruction, the only other alternative, is not permissible for A-dislocated elements. Using a modified Beghelli and Stowell (1997) Q-skeleton (12), this framework predicts that *ola* would occupy the head of a Share projection, located between T and NegP. The DP resides in Spec.TP or Spec.Refp. In essence, this analysis targets constructions like [DP...Q...], where DPs residing in a high

A-position take low scope, at the site of their quantifier.

(12)



The crucial problem of this analysis is its rigid predictions on scope-taking – and its resolution is elusive. The prediction is that the constructions in (13) and (14) have surface scope, where the asymmetric c-command relation between the relevant operator and *ola* determines scope assignment.

- (13) a. *I maθites* ðen piyan *oli* ekðromi. $\neg > oli$
 The students **not** went **all** field-trip
- b. *I maθites oli* ðen piyan ekðromi. $\neg > oli$
 The students **all not** went field-trip
*Not all of the students went on the field trip.*³

³For some speakers, the $\neg > oli$ reading for (13b) is possible only with local stress on *oli*, and not under

- (14) a. *I maθites malon oli piyan ekðromi.* ◇ > *oli*
 The students **probably all** went field-trip
- b. *I maθites oli malon piyan ekðromi.* ◇ > *oli*
 The students **all probably** went field-trip
Probably all (of) the students went on the field trip.

Nonetheless, native judgements show that (13a) and (13b) share the same reading; negation is assigned wide scope in both constructions. While this is unsurprising for (13a), considering the position-scope correspondence that base-generation induces, it is unexpected for (13b). The latter counters the argument that scope-taking corresponds to syntactic position, since *ola* takes scope under the negative operator that linearly precedes it. Similarly, the epistemic modal takes wide scope in both (14a) and (14b), which, for a base-generation approach, is unexpected for (14b)⁴. In a nutshell, the prediction of this approach, that the position of the operators in relation to each other corresponds to their scope, is not borne out. Greek does not appear to have consistent scope-freezing effects. Without this, a base-generation approach like this one, which is motivated mainly on semantic grounds, cannot be maintained. It undergenerates, since scope freezing is not consistent, and, given the inter-speaker variation in scope readings in Greek, scope effects become fairly unreliable.

In sum, an approach using base-generation encounters several problems, and is therefore abandoned. The framework in Tsoulas (2003) is unsuitable for *ola* since it considers a very narrow set of data, and relies heavily on scope effects, which have been shown to be non-homogeneous. Nonetheless, the discussion on base-generation has offered useful insight. Firstly, it stresses once again that we must be cautious of the effects of movement. Crucially, this discussion points out that movement must apply in a way that is mindful of the general requirements of overt movement. There is a need to obviate the strict constraints that certain types of movement impose, since they are empirically unattested in *ola* constructions (see section 3.2.1), and also to account for how *ola* behaves in relation to these requirements. Secondly, it reveals that the scope effects of *ola* are more complex than scope freezing.

a neutral intonation.

⁴For several speakers, the sentences in (13b) and (14b) are ambiguous.

3.2.3 Fanselow and Cavar (2002): deriving XP-split constructions⁵

In section 2.2.2, it was determined that *ola* and its DP are in a head-complement configuration. Their relationship was overlooked in section 3.2.2. In view of the syntactic and semantic evidence supporting their sisterhood, let us consider building on this property.

Prima facie, floating constructions involve a quantificational operator that is structurally detached from its nominal restrictor. For Greek, this split may result in a configuration like [DP ... *ola*], or [*ola* ... DP]. Based on this characteristic, floating constructions bear some resemblance to XP-split structures.

Can the floating configurations involving *ola* be explained as a series of XP-split constructions? A key premise underlying XP-split analyses is that the split XP is adjacent at merge; this is compatible with our assumption concerning *ola*. The literature defines the split phenomenon as a structure where the phonetic material of a single phrase, frequently comprised of an operator and its restriction, is found in more than one position (Butler and Mathieu, 2004; Fanselow and Cavar, 2002). The two types of XP-split, *pull* and *inverted splits*, can accommodate both patterns of *ola*; [*ola* ... DP] may be analyzed as an instance of a pull split since the internal order of the QP is intact (15a), and [DP ... *ola*] as an inverted split, as the internal order is reversed (15b).

- (15) a. *Na kakav je Ivan krov skočio?* CROATIAN
 On what-kind has Ivan roof jumped
On what kind of roof has Ivan jumped?
- b. *Crveni je Ivan auto kupio.* CROATIAN
 Red has Ivan car bought
Ivan has bought a red car. (Fanselow and Cavar, 2002, p.3)

Interestingly, there is an analysis, developed in Fanselow and Cavar (2002), that describes XP-splitting as instances of partial phonetic deletion of copies. According to this framework, split constructions involve copy and deletion movement, sc. *distributed deletion*,

⁵Many thanks to Christos Vlachos for suggesting I look into *distributed deletion*.

which is in turn governed by pragmatic conditioning. Distributed deletion revolves around the observation that a chain of copies may have some material phonetically realized in a high position, and some of it in a lower position. Aside from theoretical arguments in favor of such a mechanism (see for example Bobaljik, 2002; Boskovic and Nunes, 2007), there is ample empirical evidence illustrating that lower copy deletion does not automatically follow movement. For example, distributed deletion can be used to explain the different kinds of topicalization; lower copy deletion would yield a standard topic construction, whereas partial deletion would generate split topicalization⁶.

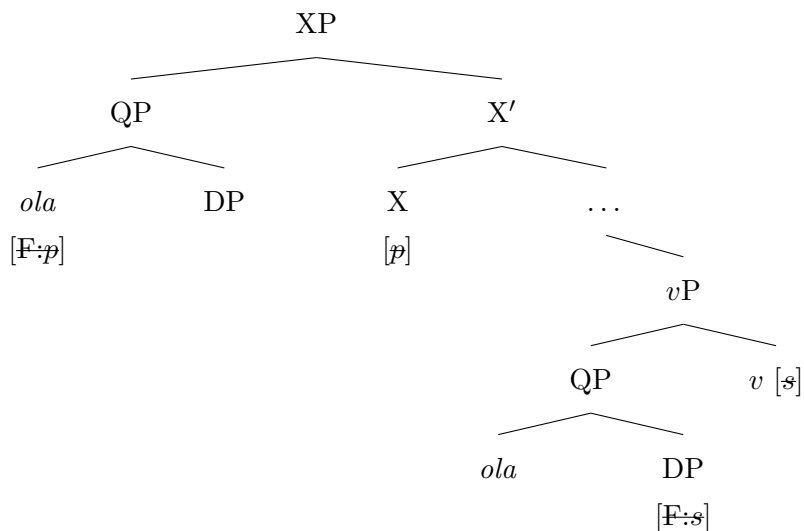
Pragmatic conditioning refers to the condition that regulates XP-split. Specifically, the split of an XP is licensed if and only if a single XP must fulfill two positional requirements, set by pragmatic constraints on order (Fanselow and Cavar, 2002, p.15). Fanselow and Cavar put this into effect by defining the XP as $[\alpha_p [\beta \gamma]_q]$, where p and q represent semantic or pragmatic features, like $[+wh]$ or $[+topic]$. When both p and q are attracted by two distinct strong heads, the result is a split construction. In other words, feature strength determines the spellout of copies.

Under this framework, let us consider *ola* constructions. For sentences where the DP A-moves, the EPP feature is carried only by the DP, and when it A'-moves, the feature involved is once again present only on the DP. Conversely, when *ola* undergoes movement, the feature is carried only by *ola*.

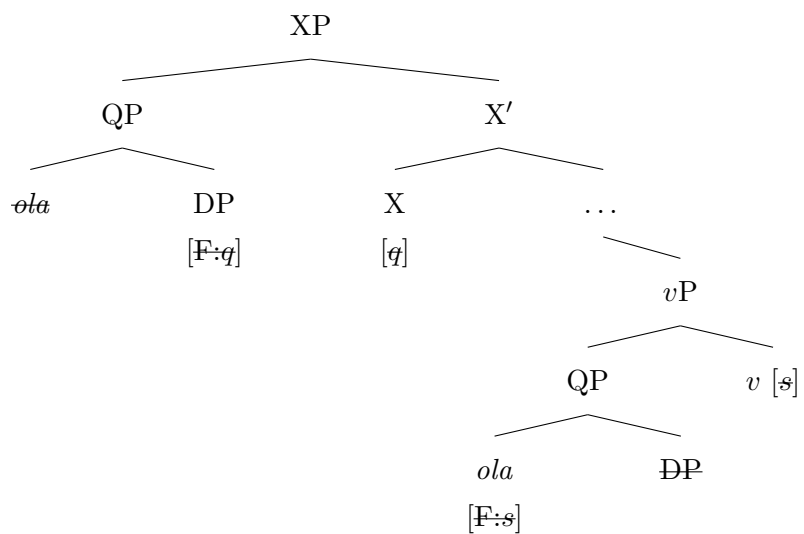
The feature-checking system raises several issues for floating constructions. Primarily, it predicts the following. A $[ola \dots DP]$ configuration would result from a feature $[F:p]$ that is carried by *ola*, and $[DP \dots ola]$ would follow from a feature $[F:q]$ on DP, as shown in (16) and (17) respectively. In addition, we would have to assume that, in these two structures, there is a strong feature $[F:s]$ carried by the part of the QP pronounced in its base position, since the split is pronounced only if strong features motivate the positions of both its parts.

(16)

⁶See also Höhle (1996) for partial deletion in light *wh*-phrases, and Pesetsky (1998) for resumptive pronouns.



(17)



On the other hand, [*ola* DP ...] would be derived a feature [F:r], borne by QP. In effect, floating constructions are predicted to differ in their underlying semantic or pragmatic trigger. This non-homogeneity is not a foreign idea; certain floating patterns are often prosodically more marked, while others are more natural in terms of stress. This suggests

that semantic-pragmatic features responsible for such contrasts are indeed at play as either p or q , and the difference in features therefore follows naturally. Nevertheless, how are floating patterns that do not involve information-based contrasts explained?

This brings about a practical issue: what kind of features are involved? In Greek, movement into the A' -domain does not always involve topicalization, focalization or *wh*-movement. To illustrate, in (18) the DP is dislocated solely to arrive to an SVO order, only to precede A' -generated functional elements like negation and low complementizers (see Roussou, 2000).

- (18) Ta peđja ðen θa pane ekđromi.
 The children not will go field-trip.
The children won't go on a field trip.

One option is an EPP feature. It has been argued in Sifaki (2003) that the C (or Force) projection in Greek bears a generic EPP feature in sentences with preverbal subjects. However, this assumption reinstates the problems discussed in section 3.2.1, regarding the selective probing of the EPP. Even if we delimit it and assume that it probes exclusively for DP targets in order to capture [DP ... *ola*] configurations, this leaves [*ola* DP ...] and [*ola* ... DP] constructions unexplained. What feature triggers the movement of *ola* to Spec.CP in these cases?

Thirdly, an XP-split analysis is problematic under the current assumption that *ola* is a head. These constructions involve movement to Spec positions, which require the dislocated elements to be of XP-status. The possible remedy is explicitly disallowed; the remaining part of the QP is not permitted to pied-pipe along. Fanselow and Cavar argue that an XP-split cannot be derived by moving the entire XP and then splitting it by partial spellout. This is inherent in their system of deriving split configurations; features probe for specific subparts of the larger XP, and this attraction cannot trigger the remaining parts of it to pied-pipe.

In closing, an XP-split approach to floating clashes with certain integral assumptions of this thesis, like the status of *ola*, and that floating may employ A- but also A' -movement. Problems notwithstanding, it shows that, to maintain distributed deletion for floating

constructions, we cannot assume that it is governed by movement, or that it relies entirely on feature strength.

3.3 Further syntactic motivation

3.3.1 An observation on QP landing sites

As discussed in section 2.1.3, one of the key characteristics of floating constructions is the ability of the FQ to appear in several positions along the clausal spine (19a). Crucially, it was observed that these landing sites correspond to DP positions (19b), even in constructions that do not have DPs with quantifiers (19b):

- (19) a. *Ta peđja* θa ixan (*ola*) xθes (*ola*) pai (*ola*) ekđromi (*ola*), an
 The children will have all yesterday all gone all excursion all if
 đen...
 not
- b. Tha ixan (*ta peđja*) xθes (*ta peđja*) pai (*ta peđja*) ekđromi
 Will have the-children yesterday the-children gone the-children excursion
 (*ta peđja*), an đen...
 the-children if not

This suggests that these landing sites are not limited to QPs and floating constructions; rather, they are general positions for nominals. For the sake of maintaining meaningful, non-vacuous movement within the A-domain, it must be the case that some of these positions are byproducts of independent instances of movement in Greek clauses. In other words, certain surface orders may be a result of V- or VP-raising used to generate word orders like VSO, VOS, OSV and OVS. QP movement may not necessarily be involved in all cases. In most cases, it must be a combination of independent dislocations and QP movement.

Consequently, we arrive at the conclusion that the underlying operations responsible for the floating effect are the movement of the entire QP to a restricted set of DP landing sites

along the clausal skeleton, and independent dislocations for linearization occurring for unrelated structural and interpretational reasons. This directly answers (5c) in section 3.1, which asks what the structure-building process of floating constructions is, alluding to the possibility of this combination. However, correlation does not entail identical causation; this conclusion must be taken with a grain of salt, and must be motivated independently. These landing sites happen to also correspond to positions for adverbials, and it is up to additional empirical observations to corroborate or contradict such an analysis for *ola*. The ensuing discussion will attempt to further motivate and explicate the outlined hypothesis. Specifically, it will explore the idea that *ola* moves together with its DP at all times: how we can see this, what constructions it participates in, and what this means for its status. Also, it will consider what independent dislocations⁷, like verb raising and object fronting, can tell us about *ola* and floating constructions.

3.3.2 Movement patterns: *ola* in A and A'-positions

[Sportiche \(1988\)](#) claims that floating constructions result from the stranding of the quantifier in positions adjacent to a DP trace, as the QP, which is the sentence subject, moves from its base to its surface position; essentially, he implies an A-status for FQs. This only captures part of the picture; the intuition is that, as it is part of the extended DP, *ola* should be compatible with and be able to undergo typical DP movements of A but also A' status.

First and foremost, let us inspect *ola* in A-contexts. As discussed in section 2.1.1, *ola* is compatible with both subject and object DPs, shown in (20a) and (20b) respectively. In both cases, the base position of the QP with *ola* is a *vP*-internal θ -position, whose A-status is undoubtable.

- (20) a. *Ola ta peđja episkefθikan enan ododiatro.*
 All the children visited a dentist

⁷Unfortunately, the discussion on the internal workings of Greek clauses and the restructuring involved in deriving its possible linearizations will be fairly limited in the following discussion; it lies outside the scope of this thesis. A number of assumptions will simply be presumed from existing literature, and critical questions that are uncovered in the process will largely be left unanswered.

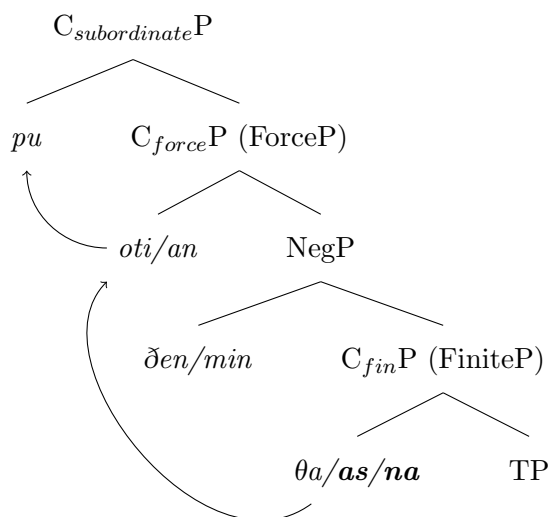
All the children went to the dentist.

- b. O Petros exi ynorisi olus tus kaθiyites
 The Peter has met all the academics
Peter has met all the (i.e. every) academic(s).

With respect to A-movement of Greek DPs, there is disagreement in the literature. There are strong claims that Greek has no structural position for subjecthood in the sense of EPP satisfaction (Georgiafentis, 2004; Kotzoglou, 2001; Philippaki-Warbuton, 1989, 1990; Spyropoulos, 1999), but also arguments for EPP-driven movement of subjects to Spec.CP (Sifaki, 2003). The EPP requirement on T is met by *v*-to-T raising as per Alexiadou and Anagnostopoulou (1998), or via VP-fronting as argued in Sifaki (2003). Rather, the preverbal A-position for subjects has been argued to be a Topic projection (Alexiadou and Anagnostopoulou, 1998), or Spec.CP (Sifaki, 2003).

For the time being, the need to identify the surface position of DPs in SVO sentences remains. It suffices to say that there is room to argue for a different A-landing site for subjects (see section 4.3). To pinpoint its exact location, we must inspect constructions with preverbal subjects and intermediate material between subject and verb, which is claimed by common consent to be generated above TP, in the CP domain (see Agouraki, 1991; Rivero, 1994; Roussou, 2000):

(21) (from Roussou, 2000)



- (22) a. I $\dot{\delta}efteroetis$ as pane oli stin ek $\dot{\delta}$ romi.
 The second-years HORT go all to-the field-trip
(Let it be the case that) all second-years go on the field-trip.
- b. Oli i fitites pu piyan sto sine $\dot{\delta}$ rio yirisan katen θ usiasmeni.
 All the students that went to-the conference returned elated
All the students that went to the conference came back ecstatic.
- c. An i $\dot{\delta}efteroetis$ $\dot{\delta}en$ pane stin ek $\dot{\delta}$ romi, as min pane ute i
 SBJ the second-years not go to-the field-trip HORT not go neither the
 protoetis.
 first-years
If the second-years don't go on the field-trip, the first-years shouldn't either.

(22a) and (22b) illustrate that a subject QP can surface above ForceP, in a position even higher than the topmost C^0 of subordination, pu . Contrariwise, (22c) shows that subjects have an additional landing site, between an that has raised to Force 0 , and Neg 0 . In other words, there seem to be two positions performing the duty of structural subject position for linearization purposes; one that precedes $C_{sub}P$, and one that follows ForceP, where an

has raised to. So, we have seen that *ola*-QPs, similarly to simple DPs, do not undergo A-displacement for EPP satisfaction. They are, however, dislocated for SVO linearization, a process which appears to target two distinct positions in the A'-domain. At this juncture, what these positions are is an open issue, which we return to in section 4.3.

Let us now turn to the A'-domain, a relatively unexplored territory of floating quantifiers. The prediction here is the following: if *ola*-QP resembles phrasal nominal constituents in movement and structural positions, it must surface in A-positions within its originating clause, and subsequently escape it, via A'-movement, to the appropriate positions within the A'-domain. This is to say that, in this particular subset of floating constructions, we expect to find part of the QP in an A-position or an intermediate XP-landing site, and part of it in the relevant projection in the A'-domain. Constructions involving topics, wh-movement, and embedded CPs all employ A'-movement of XPs. These kinds of sentences are therefore pertinent to determining the XP-behavior of *ola*-QPs in A'-contexts.

First, let us examine topicalization. TopP is a discourse-related projection that hosts elements denoting old, presupposed information (Rizzi, 1997). In Greek, sentences with topics are frequently constructed as Clitic Left Dislocation (CLLD) structures (Iatridou, 1995). (23a) is an example of a CLLD configuration; it comprises a left-dislocated object DP and a coindexed object clitic adjacent to the verb.

- (23) a. *Olus tus kaθiyites* tus exi ynorisi o Petros.
All the academics CL has met the Peter
- b. *Tus kaθiyites* o Petros tus exi (*olus*) ynorisi (*olus*).
The academics the Peter CL have all met all
- c. *Olus* o Petros tus exi ynorisi *tus kaθiyites*.
All the Peter CL have met the academics

(23) demonstrates that floating and topicalization can coincide. The sentences pass the topichood test; they can successfully be embedded under *about*, as shown in (24).

- (24) *Oson-afora tus kaθiyites, olus* o Petros tus exi ynorisi.
About the academics all the Peter CL has met

As for the academics, Peter has met them (all).

As for the compatibility of *ola*-QP and the topic projection, (23a) shows that the entire QP is fronted to the Spec.TopP position. In (23b), the DP is fronted while *ola* surfaces in its base position. In (23c), *ola* surfaces in topic position, and the rest of the QP stays in its θ -position.

In sum, floating constructions with topicalization are the first piece of evidence showing that the *ola*-QP is fully compatible with XP-movement of the A'-variety that topicalization typically involves.

Another type of construction we consider is complex sentences that contain embedded declarative or interrogative clauses. As shown in (21), the Greek inventory of complementizers includes true C-heads like *oti* and *pos* 'that', occupying Force⁰ (Roussou, 2000). As a successive cyclic operation, the long-distance A'-movement that takes place in these constructions makes use of the embedded Spec.CP as an intermediate landing site, before the dislocated element continues to its surface position. Evidence of the *ola*-QP undertaking this sequence of movements is presented in (25) and (26).

- (25)
- a. O Petros ipe oti θa fiyun *ola ta peđja*.
The Peter said that will leave all the children
 - b. O Petros ipe *ola/ta peđja* oti θa fiyun *ta peđja/ola*.
The Peter said all/the children that will leave the children/all
 - c. *Ta peđja* o Petros ipe *ola* pos θa fiyun.
The children the Peter said all that will leave
 - d. *Ola* o Petros ipe pos θa fiyun *ta peđja*.
All the Peter said that will leave the children
 - e. *Ola ta peđja* o Petros ipe oti θa fiyun.
All the children the Peter said that will leave

(25) shows how an *ola*-QP can be extracted from an embedded clause and moved, via the embedded Spec.CP, to a Topic projection in the matrix clause. (25b) and (25c), in partic-

ular, illustrate the intermediate step; part of the QP surfaces at a left-adjacent position to the intermediate C-head. Additionally, (25) highlights the possible configurations of the QP at Spellout.

- (26) *Pxja pedja* ipe o Pavlos oti irθan *ola* sto parti?
 Which children said the Paul that all came to-the party
Which kids did Paul say (that) all came to the party?

In (26) it is shown that *ola* can be part of a *wh*-phrase that moves from its base position to the edge of the matrix clause⁸. In short, the preceding discussion highlights that the *ola*-QP is also able to undergo long-distance A'-movement, in canonical successive-cyclic fashion; to wit, the floating phenomenon is not clause-bounded.

In conclusion, *ola* acts in accordance to our prediction: A'-movement, and thus, floating amounts to XP-movement in disguise. In more theoretical terms, *ola* undergoes non-local dislocations that target specifier positions, as per the Uniformity Condition on Chains (Matushansky, 2006). As for A-movement, an explanation as to how Greek, as an underlyingly VSO language with subject pro-drop, differs in this respect was put forward, and the precise landing sites for preverbal subjects remains to be seen. As a consequence of this discussion, the following concerns arise. Firstly, syntax must have a way for dislocated elements to leave behind identical versions of themselves for featural specification, feeding for example agreement morphology, and for maintaining their local relationships, like the head-complement configuration within a phrase. This leads us directly to Chomsky's (1995) copy theory. With respect to PF, there must be a way of endowing parts of copies with phonetic privilege in a more or less principled way. Lastly, LF must be able to

⁸Curiously, *ola* and the *wh*-constituent are never linearized adjacently:

- (i) **Ola pxja pedja* ipe o Pavlos oti irθan sto parti?
 All which children said the Paul that came to-the party
Which kids did Paul say (that) all came to the party?

A potential explanation is that the *wh*-feature carried by the DP does not percolate to Q. Only the *wh*-phrase is visible to the [+*wh*] probe, and therefore, only the DP A'-moves to the left periphery of the matrix clause. The movement of the QP to the embedded Spec.CP is then an instance of A-movement.

model the syntactic effects of copy theory to semantic terms, and quite possibly, to induce patterns of partial deletion in the semantic component. These three issues are explored in detail in the following sections.

3.4 The proposed analysis: movement and split privileging

From the discussion thus far, we have observed that in Greek, *ola* manifests itself in four configurations, with both subject- and object-related floating quantifiers.

- (27)
- a. [...operator + restriction ...]
 - b. [...restriction + operator ...]
 - c. [restriction ...operator ...]
 - d. [operator ...restriction ...]

The first kind of structure is involved in sentences like (28), where *ola* and its DP are string adjacent.

- (28)
- a. Extisan *oli i mixaniki* mia polikatikia.
 Built all the engineers an apartment-building
All the engineers built an apartment building.
 - b. O Manolis efaye *ola ta mila*.
 The Manolis ate all the apples
Manolis ate all the apples.

(27b) describes constructions where *ola* and the DP are linearized adjacently like in (29), where *ola* is in a post-nominal position. In (27a) and (27b), there is no floating.

- (29) *Ta peđja ola* efayan mia pítsa.
 The children all ate a pizza

The kids all ate a pizza.

The third type of construction is the quintessential floating paradigm (30). The structure in (27d) involves the reverse floating pattern of the structure in (27c). It represents sentences like (31). For both (27c) and (27d) type structures, the amount of matrix material interposed between *ola* and its restriction varies:

- (30) a. *Ta peđja* extisan *ola* ena kastro.
The children built all a castle.
All the kids built a castle.
- b. *Ta peđja* θa exun (*ola*) xtisi (*ola*) (apo) ena kastro (mexri na pis kimino).
The children will have all built all of one castle until SUBJ say
cumin
The kids will have all built a castle (each) in no-time.
- c. *Ta peđja* efayan mia pítsa *ola*.
The children ate a pizza all
*The kids all ate a pizza.*⁹
- (31) a. *Ola* episkefθikan ođodiatro *ta peđja*.
All visited dentist the children.
The children all visited a dentist.
- b. *Ola* exun (*ta peđja*) episkefθi (*ta peđja*) ođodiatro.
All have the children visited the children dentist
The children have all visited the dentist.

The main proposal of this thesis concerning the syntax of floating and its configurations in (27) is formulated in the following:

- (32) Floating constructions are the result of the QP chain being *spelled out selectively*; the chain is created by QP-movement.

⁹Constructions where *ola* surfaces sentence-finally are ungrammatical for a group of speakers.

In what follows, the components of this proposal are broken down in detail, starting from how movement is employed, and then moving on to how the two interfaces are involved in saturating the output of syntax.

3.4.1 The role of copy theory and movement

First, it must be pointed out that copy theory of movement is key. Under this approach, the movement operation forms a chain, viz. an ordered set of two or more links that are identical to one another (Chomsky, 1995): $CH = \langle QP_1, QP_2 \rangle$ where $QP_1 = QP_2$.

Copies are an important concept in minimalist tradition. In this program, the introduction of lexical items throughout syntactic computation is more constrained under the Inclusiveness Condition; they must be introduced at a stage prior to the derivation. On the other hand, under trace theory, what occupies the base position of a moved element is an impoverished category that inherits certain properties from this element (Corver and Nunes, 2007). Traces are not part of the initial array of lexical items; rather, they are introduced in the derivation. Trace theory therefore runs contrary to the Inclusiveness Condition. With copy theory, however, this requirement is met, since chains involve multiple copies of a single object from the numeration. The derivation is prevented from creating new primitives, and there is an overall simplification of the grammar, which is what minimalism is primarily concerned with.

The notion of copies is crucial to our argument of selective spellout; we are assuming that phonetic realization processes, regulated by PF, allow lower copies to be activated, much like the LF interpretative procedures (see Bobaljik, 2002; Boskovic and Nunes, 2007). For this to be possible, the link (or its subpart) pronounced at a low position must have retained its complex internal structure, which it can do under a copy but not under a trace framework.

With regard to the floating paradigms, it is argued that QP-movement is involved in their derivation. However, the extent of its involvement differs. In *ola* constructions following the template in (27c) and (27d), there is evidence for two overt links, since part of the QP is pronounced at a low position, and part of it in a high position (see (30) and (31)). There

may be an additional number of links that exist covertly, depending on other requirements of syntax. In (i) and (ii), however, it is not obvious whether QP-movement is employed. The entire QP is realized in a single position. Unless it is required to satisfy other conditions, multiple copies of the QP do not seem to be necessary for floating in itself.

To determine which dislocations affect *ola* constructions more generally, and the extent to which QP-movement is involved, we must first consider the other ways in which the operation Move is active in Greek clauses, and which dependencies it is responsible for.

Greek has a flexible word order; its rich nominal morphology allows for dependencies to be created and preserved without the relevant elements maintaining their fixed positions relative to one another. More specifically, it permits SVO, VOS, VSO, OVS, OSV, and SOV permutations. It is worth noting, however, that these orders are not equally common or interpretationally equivalent (Georgiafentis, 2004). With respect to the structure of Greek clauses, this thesis assumes the following claims. Firstly, the default, unmarked permutation of Greek clauses is VSO (see Georgiafentis, 2004, and references therein). Secondly, the SVO order does not involve EPP satisfaction. It hence follows that Spec.TP does not serve as a structural position – in fact, it is not projected at all (Philippaki-Warbuton, 1989, 1990; Alexiadou and Anagnostopoulou, 1998; Kotzoglou, 2001)¹⁰. Thirdly, Greek clauses permit object scrambling to Spec.VoiceP, over the θ -position of the subject, Spec.vP (see Alexiadou, 1997, 1999; Georgiafentis, 2004, for counter-arguments).

At this stage, our arsenal contains copy theory and QP-movement, along with Greek-specific facts concerning independent dislocations. With these tools, we can generate structures with QP copies in the right places. In terms of spellout, nonetheless, the blind default rule PRONOUNCE CHAIN HEAD can only produce (27a) and (27b) configurations,

¹⁰Spyropoulos (1999) puts forward an account, namely the *discontinuous subject hypothesis*, that utilizes both Spec.vP and Spec.TP as subject positions. In this analysis, subjects are comprised of a null nominal, represented as a feature bundle, which always raises to Spec.TP for EPP satisfaction, and a DP or *pro* in θ -position. This account has the advantage of capturing impersonal structures and subject control, which previous analyses are unable to do, and it is largely compatible with the analysis currently developed. Nevertheless, for the sake of simplicity, and since this analysis does not hinge on the presence of Spec.TP, this work abides by the idea TP does not project a specifier position in Greek clauses, and that the EPP requirement is fulfilled via agreement inflection on the raising V.

where the QP is spelled out as a whole at its highest position. How does deletion proceed for configurations like (27c) and (27d) which involve floating?

3.4.2 Defining *split privileging*

At this juncture, it seems necessary to redefine the overt-covert distinction that characterizes movement, and to determine how deletion proceeds for floating constructions.

Let us first define selective spellout. According to Tsoulas and Yeo (2017), this term refers to the ability of PF to phonetically privilege any copy along a chain. In their work, it is argued that information encoded in the syntax is interpreted by PF and governs the deletion process. Under copy theory, all but one link in a given chain are deleted (Boskovic and Nunes, 2007); the idea here is that the universal rule SPELLOUT HIGHEST COPY is abandoned in favor of extending the possibility of phonetic realization to other copies besides the chain head. In this sense, all movement becomes a component of syntax, in the sense that it is all overt. The phonetic realization of copies is controlled by the phonological component, just as interpretation is determined by the semantic one; neither is governed by movement *per se* (Boskovic and Nunes, 2007).

In effect, movement is to be regarded as a theory of mismatch in the privileging of copies between the two interfaces (Bobaljik, 2002); the position of spellout and interpretation may or may not coincide. From the discussion in Bobaljik (2002) and Tsoulas and Yeo (2017), we have an abstract take on how this privileging mismatch applies, for both interfaces. LF privileging follows the pattern in (33), while PF privileging proceeds as per (34).

(33) copy₁ ... copy₂
 LF LF

(34) a. copy₁ ... copy₂
 PF
 b. copy₁ ... copy₂
 PF

Semantically, both copies must be active; the interpretive component must be able to access the lower copy at least for thematic interpretability, and the higher one usually for scope assignment and binding purposes. In other words, LF exhibits the ability of *split privileging*. From (34), however, we notice that selective spellout is put into action, since lower copy pronunciation is identified as an option for spellout, but that split privileging is not accounted for. As it stands, (34) cannot apply to floating constructions; it can only capture *ola* constructions like (27a) and (27b).

The working analysis extends this theory of split privileging to the PF interface. This process is suggested empirically from what we have established so far regarding floating constructions, but is also the next logical step to take theoretically; this level of isomorphism between the interfaces in how they treat chain computation is desirable. In practical terms, (34) is revised as (35), where part of the complex element undergoing movement are pronounced in a high position, and part of it at a lower position.

$$(35) \quad \begin{array}{ccc} \text{copy}_1 & \dots & \text{copy}_2 \\ \text{PF} & & \text{PF} \end{array}$$

For the paradigms in (27a) and (27b), selective spellout proceeds as per (34), where only one copy is activated at spellout. This can be either *copy*₁ or *copy*₂. For configurations like (27c) and (27d), it is *distributed spellout*, a type of split privileging at PF, that takes place, where both copies are accessed at PF (35). All the links in the chain count as the same element for the linearization mechanism, and thus a structure where all links are phonetically realized cannot be linearized (Boskovic and Nunes, 2007). Therefore, the chain reduction process deletes a different part of each copy so that this contradiction does not arise. Essentially, the floating effect that we observe in production is the phonetic output of split PF privileging.

3.4.3 Applying the mechanism

Let us combine our predictions about QP movement and split privileging with what we know about Greek clauses, to see how the mechanism applies. Sentences like (36a)

and (36b) follow the [...operator + restriction ...] permutation. It is in such cases that there is no direct evidence for a QP chain. In (36a), the QP appears to reside in its base position, with the verb raising over it for the obligatory V-to-T movement. Similarly, in (36b), it is a matter of verb- and object-raising over Spec.vP.

- (36) a. đokimasan [*ola ta peđja*] susi.
 Tried all the children susi
- b. đokimasan susi [*ola ta peđja*].
 Tried sushi all the children
All the children tried sushi.

From object QPs, it is clear that this permutation can involve QP movement; in (37) the QP has moved to a position that c-commands at least the TP, since the verb marks the TP edge.

- (37) a. [*Ola ta mila*] o Manolis ta efaye.
 All the apples the Manolis CL ate
- b. [*Ola ta mila*] ta efaye o Manolis.
 All the apples CL ate the Manolis
All the apples, Manolis ate them.

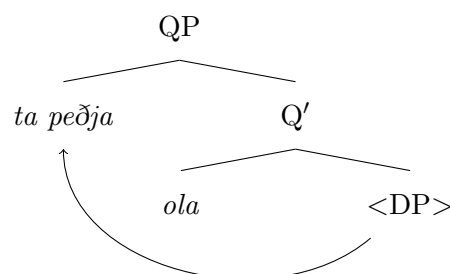
In essence, the [...operator + restriction ...] configuration must involve QP movement when the QP appears in a preverbal position with subject QPs, and in all dislocations from its merge position with object QPs. In terms of Spellout, the copy that is selected at PF is pronounced in full; PF does not provide any evidence for the existence of a chain.

With respect to the [...restriction + operator ...] permutation, there are two possibilities¹¹. One option is that this particular linearization is a result of a QP-internal movement, where the DP has moved to Spec.QP (see (38)). This type of raising is often employed in genitive fronting constructions like (39): the genitive DP complement of N moves to the ma-

¹¹My thank to Christos Vlachos for pointing this gap out. Thank you also to the audience at ICGL 13, for the ensuing fruitful discussion on the matter.

trix Spec.DP. With *ola*-QPs, the preferred landing site for the raised XP is Spec.QP (40a), rather than Spec.DP (40b).

(38)



(39) Tu potamu ta nera kataliyun sti θalasa.
 Of-the river the waters end-up in-the sea
The water of the river ends up in the sea.

(40) a. Tu barberi ola ta psaliđja ine akonismena.
 Of-the barber all the scissors are sharpened
 b. ??/*Ola tu barberi ta psaliđja ine akonismena.
 All of-the barber the scissors are sharpened
All of the barber's scissors are sharp(ened).

When *ola* surfaces in a post-nominal position (41), it makes use of the specifier position, most likely for stress-related reasons, since *ola* is a striking locus of stress in such constructions, and the most embedded element in a constituent tends to carry prominent stress (Sifaki, 2003). In (41a), the DP complement of *ola* has raised to Spec.QP, and the QP as a whole has moved to an undetermined unmarked position above TP. In (41b), the phrasal movement of the QP targets a different landing site, namely Spec.VoiceP (following Alexiadou, 1997, 1999). In both cases, only one copy is activated at Spellout.

(41) a. [Ta pedia ola] đokimasan susi.
 The children all tried sushi.

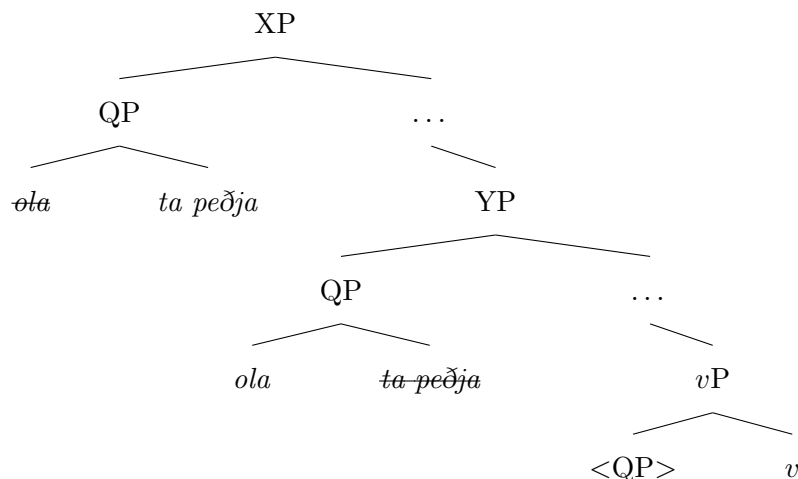
The children all tried sushi.

- b. Ta efaye [ta mila ola] o Manolis.
 CL ate the apples all the Manolis
Manolis ate all the apples.

However, this hypothesis clearly violates anti-locality principles, in the sense of Abels (2003). The movement represented in (38) is too short, and there is no reasonable trigger behind it, sc. no apparent feature it is called to satisfy.

The alternative is what the working system predicts: QP movement with split PF privileging (see (42)). This involves two QP copies that appear to be adjacent, where from the former the DP is pronounced, and from the latter, *ola* is spelled out.

(42)



In this case, we use the overt position of *ola* as a diagnostic for the movement process. From its base position, the QP first moves to an intermediate position where *ola* is spelled out, before raising higher to a landing site where the DP is pronounced. Which positions are these? This reinstates the issue discussed in section 3.3.2; the surface position of subjects is still undetermined. For reasons discussed in 3.3.2, Spec.TP is not used for as a D/QP landing site. In effect, we have evidence for two positions for QPs. This discussion continues in section 4.3.

Essentially, the difference between the two options for the [... restriction + operator ...] configuration lies in the way movement is employed. For the sake of the current discussion, the second option is adopted, for reasons discussed in the following chapter.

Moving on to the prototypical floating paradigm [... restriction ... operator ...], QP movement is visible from the distributed pronunciation of the QP chain. (43a) shows that part of the QP is pronounced at its preverbal position, and part of it at its base position in Spec.vP. (43b) involves a more elaborate derivation; each pronounced portion of the QP occupies a Topic projection, in between which we find the focalized sentence subject. This means that the QP chain in this particular construction consists of two links active at PF, in addition to the silent chain tail, located in the lexical core of the sentence.

- (43) a. *Ta peđja đokimasan ola susi.*
 The children tried all sushi
The children all tried sushi.
- b. *Ta mila o Manolis ola ta efaye.*
 The apples the Manolis all CL ate
Manolis ate all the apples.

The fourth configuration, [... operator ... restriction ...], often involves a focalized *ola* pronounced at the chain head, and the DP spelled out either in a lower position, intermediate between chain head and tail (44a), or at its position at first merge (44b).

- (44) a. *Ola ta efaye ta mila o Manolis.*
 All CL ate the apples the Manolis
- b. *Ola ta efaye o Manolis ta mila.*
 All CL ate the Manolis the apples
Manolis ate all the apples.

In these examples, the highest QP copy resides in Spec.FocP, in which *ola* is pronounced, while the DP is phonetically realized either in the VP or in Spec.VoiceP. There are also cases where *ola* is focalized, but does not appear to move to the designated position in the clausal periphery. This is shown in (45), where *ola* is pronounced in Spec.VoiceP and its

DP restriction in its θ -position.

- (45) Ta efaye *ola* o Manolis *ta mila*.
 CL ate all the Manolis the apples
Manolis ate all the apples.

In such sentences, it can be argued that focus is not realized syntactically, since there is no evidence of QP displacement to Spec.FocP. Contrariwise, the counterargument is that there exists a low FocP projection within the TP. A third possibility is that some instances of focalization are computed at a much later stage in sentence computation. Regardless, focus is a complex mechanism that unfortunately cannot be discussed further at this stage (but see discussion in [Markopoulos and Sevdali, 2004](#)).

In closing, from the discussion thus far, a few things have become clear. Firstly, the necessity for unmarked landing sites above T for subjects is stressed, once again. Secondly, syntactic movement is not responsible for regulating copy activation. In this framework, the explanatory burden of how to constrain copy privileging falls upon the interfaces. So far, the discussion has revolved around *how* we arrive at such constructions, and we have seen that it is largely answered by syntax. *Why* floating constructions appear, and why selective and distributive spellout exists, appear to be a matter of PF. This gives rise to a number of questions:

- (46) a. With regard to Spellout, why is it that the QP is split invariably into Q and DP for deriving the floating effect? How is the occurrence of a [Q+D ... NP] configuration prevented?
- b. In terms of LF, how does split privileging relate to scope assignment and reconstruction?
- c. With respect to both interfaces, what information in syntax is such that, without triggering movement *per se*, it puts forward interpretable information for conditions on copy privileging?
- d. With both LF and PF split privileging in place, why is it that they are not employed more often? What constraints are in position? In other words, how

do we control for overgeneration?

3.4.4 A possible analysis: Boskovic and Nunes (2007)

Interestingly, a framework of copy privileging developed in Boskovic and Nunes (2007), in an attempt to answer the questions in (46), presents an account for the computational processes involved in selective spellout, which they call *PLC* ‘pronounce lower copy’, and in distributed spellout, which they refer to as *scattered deletion*.

In their work, Boskovic and Nunes define PLC as the ability of PF to endow either chain link with phonetic content, mirroring the deletion conditions of LF, and scattered deletion as the process where some parts of a copy are pronounced and interpreted at a high position, and other parts of it in a lower position. There are two crucial observations here. The first is that copy theory is considered essential, since all chain links must have an identical structure. The second is that scattered deletion is argued to pertain to both the LF and the PF interface.

The resemblance between the analysis developed here and the account outlined in Boskovic and Nunes (2007) is evident; both aim to extend copy activation beyond the default privileging of the chain head. In addition, their account encounters the same set of issues as in (46). To address them, they propose a mechanism that employs linearization and economy principles that regulates the copy deletion process (see also Nunes, 1995, 1999, 2004).

Let us briefly entertain this framework, to determine whether it is empirically and theoretically viable.

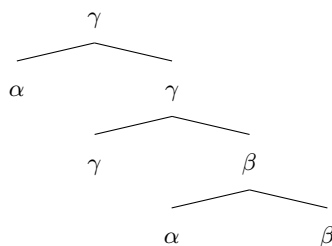
The first pillar of their system concerns linearization at Spellout. To put it simply, deletion is used as a rescuing strategy for the linearization of chains, to avoid causing contradictory requirements. Chains contain identical links that occupy multiple structural positions. Assuming Kayne’s (1994) *Linear Correspondence Axiom*, where linear order is contingent on asymmetric c-command, this is problematic for the PF linear sequence. Copies are understood as non-distinct, since they refer to a single element in the numeration. As a result, an element interposed between the two copies must both precede and be preceded

by the same XP, and the XP is also required to precede itself. These contradictions¹² do not allow the structure to converge. To avoid a crashing derivation, chain reduction begins, where deletion ensures that these contradictions are eliminated. Effectively, chain reduction accounts for why, in most cases, all but one copy are eliminated in the phonological compartment, and also shows that phonetic realization is exclusively a PF matter, in response to (46c).

The second pillar is economy, and is devised to justify the general preference for pronouncing the highest copy, and to explain why scattered deletion is employed so rarely (46d). In a nutshell, the pertaining economy considerations for the former measure feature elimination. Movement is motivated by feature checking, so the more a given XP has moved, the more checking relations it has participated in. At Spellout, the lower copies of the XP that have only engaged in local, and therefore fewer, checking relations, are deleted, since they are less economical than the chain head in this respect. As for scattered deletion, the relevant principle of economy regulates the deletion process: it ensures that deletion applies as little as possible. The scattered deletion mechanism is a costly option, utilized only if competing derivations, with fewer applications of deletion, violate other requirements and

¹²This contradiction is actually not an issue for concern under Chomsky's (1995) definition of copies. Copies are always to be distinguished based on their environment: each one is bound to have a different sister. At LF, the chain is interpreted as a part of positions, each one defined as an ordered set containing the copy and its sister: CH = <POS₁, POS₂>, where POS₁ corresponds to <α, β>, and POS₂ represents <α, γ> (see (i)).

(i)



In essence, copies are treated as *occurrences* rather than *repetitions*. Nevertheless, distinguishing between copies can also be done through LCA, as argued by Boskovic and Nunes (2007) (see also Chomsky, 2005, 2006, for discussion).

cannot converge.

It must be noted that this framework successfully keeps syntax out of the copy privileging process. However, it fails to address certain issues highlighted in (46), and brings about conceptual problems that ultimately lead us to abandon it.

An important problem has to do with the process of cross-derivational comparison which is driven by requirements of economy. It is unlikely that a large amount of derivations are computed to test all possible permutations in search for the most economical one, and that the most suitable is then chosen – all the while either before production or while parsing. This is an overwhelming load for the linguistic computational system, and is therefore questionable. In fact, psycholinguistic work as early as [Frazier and Fodor \(1978\)](#) underlines empirical findings that show that this kind of model of *delayed choice* is improbable. It draws attention to the existence of garden path effects to show that the processor computes derivations in ranked parallel.

Moreover, using economy as the basis of cross-derivational comparison is problematic for the floating phenomenon in particular, for a number of reasons. First, the argument that scattered deletion is used only when competing, more economical derivations are non-computable cannot capture why such a mechanism is involved in paradigms (iii) and (iv) (repeated below as (47a) and (47b)).

- (47)
- a. [restriction ... operator ...]
 - b. [operator ... restriction ...]
 - c. [... operator + restriction ...]
 - d. [... restriction + operator ...]

These two configurations are cases where chain reduction does not apply as per usual, like it does in (47c) and (47d). The underlying hypothesis is that, for some reason, (47c) and (47d) violate convergence requirements, and instead, (47a) and (47b) are chosen, despite the additional occurrence of deletion that they involve. However, (47c) and (47d) are well-formed and less marked permutations according to many speakers, with which (47a) and (47b) are truth-conditionally interchangeable. And without information encoded in

their syntax to give grounds for a semantic or pragmatic difference between the structures that employ scattered deletion ((47a) and (47b)) and those that only undergo chain reduction ((47c) and (47d)), why (47a) and (47b) are opted for in the first place is inexplicable. In other words, not only is it such that the underlying constraints of scattered deletion do not answer (46d), they also raise an additional, antithetical question: why should scattered deletion even be an option for floating constructions?

Lastly, neither economy considerations nor linearization principles can explain the puzzling empirical issue described in (46a): why do patterns like [Q+D ... NP] and [D ... Q+NP] never surface? Suppose that the permissible cases [DP ... Q] (47a) and [Q ... DP] (47b) involve scattered deletion, where deletion applies twice: once for eliminating the higher Q in (47a) and the high DP in (47b), and a second time to delete the lower DP in (47a) and the low Q in (47b). The aforementioned unacceptable patterns involve the exact same number of steps; the difference lies in which subpart of the QP deletion applies to at each copy, and not in how many times it is implemented. In principle, these ill-formed permutations should be possible under this framework. Consequently, the principles that underlie scattered deletion cannot constrain its tendency to overgenerate.

In conclusion, the analysis developed in [Boskovic and Nunes \(2007\)](#) cannot be used to regulate the implementation of a freer, more powerful system of copy privileging, nor can it capture the empirical facts related to a split privileging mechanism like scattered deletion. Be that as it may, it spotlights the fact that syntax must play a part in determining how copy privileging will proceed.

3.4.5 Interim conclusions

To conclude the hitherto discussion, we have developed one branch of our theory, and answered a number of questions we posed earlier (see (18) in section 2.4).

First and foremost, the syntactic process behind floating constructions has been determined. The *ola*-QP often undergoes XP-movement, leaving behind a copy of itself. The head-complement configuration of *ola* and its restriction is naturally preserved, in every link of the QP chain. This was substantiated through the QP presence in the A'-domain,

and additionally through the critical discussion of some possible analyses, which delineated the most appropriate path of analysis.

We also discussed selective and distributed spellout and split privileging. The former two capture the linearization patterns of QP copies, while the latter extends the notion behind distributed spellout to the semantic component. In short, split privileging is defined as the cover term for the split realization of a chain, for both PF, where it is referred to as distributed spellout, and LF.

The persisting questions concern the semantic underpinnings of *ola*-QPs and floating constructions: what are the scope patterns of *ola*, as an operator, and how are they defined in terms of split privileging? There are also questions about how our system is to be constrained for overgeneration: why does distributed spellout always result in a split along the DP layer? Also, why is split privileging, particularly at PF, not employed more frequently?

In the following chapter, we investigate semantic aspects of floating quantification, and develop the second part of our analysis to capture these facts and answer these questions.

Chapter 4

The semantics of *ola* and floating

A comprehensive discussion of *ola* and the floating phenomenon must include an investigation into semantics. As a quantificational operator, *ola* affects the interpretation of the entire sentence in a distinctive way; it impacts scope assignment and variable binding. In addition, we must put the theory we have developed to the test. Since the LF interface carries out a significant amount of labor, we must determine (a) what changes are imposed on the semantic computational process, and (b) what problems they bring about and how trivial they are.

What's more, several questions that have emerged throughout the course of this thesis require a deeper look at the semantics involved in *ola* constructions. First and foremost, how do we explain the floating quantifier phenomenon beyond descriptive adequacy? Why does grammar generate such a construction? So far, we have put forward an account for how the underlying structure is put together, which is purely a matter of syntax. Why such a structure is used is related to its interpretational outcome. There must be some semantic or pragmatic factors at play, partly because our account depends largely on LF privileging, and partly because an interpretational difference between constructions can justify why this type of sentence is chosen for our production, in specific contexts.

Secondly, what do the scope effects of *ola* tell us about scope assignment in floating quantifier constructions? We have alluded to the intricacy of scope in Greek, and already shown that a straightforward correspondence between scope and the spelled out position of the quantifier is empirically inadequate (see section 3.2.2). Lastly, how is reconstruction affected by the use of copy theory? The pre-copy theory processes are inherently incompatible with the foundational idea of copy theory, namely that all chain links are of identical status (Tsoulas and Yeo, 2017). How do we assimilate this kind of movement and the standard compositional relationship between operator and trace variable?

The ensuing discussion is structured as follows. First, we examine the scopal patterns of *ola*-QPs in relation to other operators like negation, modals, and the D-operator, and we identify in which instances it takes wide scope, and in which cases narrow scope. Then, we propose a mechanism that captures this behavior and addresses the afore-posed questions. It also clarifies how labor is divided between the syntactic and the semantic components for scope assignment; it determines the extent to which each component is involved.

4.1 Scopal activity

There are three types of scope judgements: presuppositions of existence, scope interaction between negation and downward-entailing operators, and distributivity effects (Beghelli and Stowell, 1997). With reference to *ola*, the latter two are examined. As a downward-entailing operator, its behavior when juxtaposed with negation is bound to reveal some of its scopal properties. Moreover, as a universal quantifier, distributivity is inevitably involved in its scope readings¹. To identify the scopal properties of *ola* and, in turn, to specify how the LF privileging procedure proceeds for scope assigning purposes, it seems that looking at the scope-taking patterns of these interactions² is the next logical step.

¹For a detailed discussion of the lexical semantic of *ola* and a compositional analysis of the QP, see Kostopoulos (in progress).

²It is important to note that Greek is notorious for inter- and intra-speaker variation in scope judgements. What is presented in the following sections corresponds to a small subset of readings, which reveal some (weak) preferences.

4.1.1 *Ola* and distributivity

In the literature, the quantifier *all* is uncontroversially a universal quantifier, and is arguably neutral with respect to distributivity (see, for example, [Beghelli and Stowell, 1997](#)). These properties are reflected in the semantics of *ola*.

- (1) *Oli i maθites* episkefθikan ton kaθijiti.
 All the students visited the professor
All the students visited the professor.

(1) is evidence of the universal nature of *ola*; if *the students* = {Anna, Helen, Mark, Sirius}, the sentence is true if Anna, Helen, Mark and Sirius all visited the professor and false if any of them failed to do so.

- (2) a. *Ta ayorja* efayan *ola* mia pítsa.
 The boys ate all a pizza
All the boys ate a pizza.
- b. *Ta peđja* fternistikan *ola* ðinata.
 The children sneezed all loudly
All the children sneezed loudly.
- c. **Oles i kopeles* perasan ena ðiaforetiko maθima.
 All the girls passed a different module
 **All the girls passed a different class.*
- d. *Ta ayoria* sigedroθikan *ola* sto proavlio.
 The boys gathered all in-the schoolyard
The boys all gathered in the schoolyard.

(2) reveals that *ola* is not distributive in and of itself. According to [Beghelli and Stowell \(1997\)](#), there are three ways to derive a distributive reading. The first is through the interaction between an overt indefinite QP, inherently capable of referential variation, and another QP. In a such a context, (2a) shows that *ola* is ambiguous; it can act as the

distributor to yield a wide scope reading, or as the *distributee* that takes narrow scope. The second is via an intrinsically distributive event whose covert \exists quantifier takes narrow scope with respect to the QP. (2b) is an instance of this; it demonstrates that *ola* is unavoidably the distributor over a predicate like *sneeze*. Finally, the third way is by a strong distributive quantifier that imposes a distributive reading even in construals which typically allow a collective interpretation. *Ola* is not such a quantifier; this is illustrated by (2a) and (2c). The ambiguity of (2a) is evidence that *ola* in itself does not force distributivity. (2c) demonstrates that it cannot occur in strong distributive construals, in which the adjective *different* marks the true distributee status of the indefinite QP. Moreover, *ola* is perfectly compatible with collective predicates like *gather*, as shown in (2d).

This flexibility between a distributive and collective interpretation is captured by [Beghelli and Stowell \(1997\)](#), and is described as *pseudo-distributivity*. In more detail, for pseudo-distributive expressions, a distributive construal is optional, and cannot arise under inverse scope-taking. Typical quantifiers include plural definites, indefinites, and *all*-QPs. In contrast, there is *strong distributivity*, which represents the behavior of expressions like *each* and *every*. In their case, distributive readings are obligatory, and arise even under an inverse scope relation, where the distributee is in a c-commanding position over the distributor.

In sum, *ola* is found in distributive and collective construals; as a pseudo-distributive operator, it is unable to impose distributivity systematically. Moving forward, we need to determine what induces this ambiguity.

4.1.2 *Ola* in interactions with negation and modality

Ola-QPs may and frequently do co-occur with other scope-sensitive operators, like negation and modals. As yet, we have only briefly seen some syntactic effects of cases where *ola* interacts with such operators, particularly in constructions with the floating effect (see section 3.2.2).

At this juncture, the basic prediction is that, in principle, any QP copy can be privileged at LF. This statement is, as it stands, too powerful and unprincipled, and by proportion,

the risk of overgeneration is very high. There must be a theory-driven way of constraining this. In terms of θ -assignment, there does seem to be: the lower copy is activated for the purposes of thematic interpretation. When it comes to scope assignment, we must first identify the scope-taking patterns of *ola*; that is, we must pin down which copy is activated, before we attempt to flesh out a constraint for this prediction.

Let us start with negation. It can be observed that, in negative contexts, *ola* has a strong tendency of taking narrow scope. This appears to be the case in sentences like (3a) and (3b), where the QP is the subject and when it is the sentence object, respectively:

- (3) a. *Oli i diayonizomeni* ðen θ a prokri θ un ston teliko. $\neg > \forall$
 All the contestants not will qualify in-the final
Not all the contestants will qualify for the final round.
- b. O ðromeas ðen θ a (tis) treksi *oles tis kurses.*
 The racer not will CL run all the races
Some (but not all) of the children went to class.

This preference also pertains to all four permutations of *ola* constructions (repeated in (4)), as shown in (5) and (6) with a subject and an object QP, respectively.

- (4) a. [... operator ... QP ...]
- b. [... QP ... operator ...]
- c. [... Q ... operator ... DP ...]
- d. [... DP ... operator ... Q ...]
- (5) a. ðen prokrinode *oli i diayonizomeni* ston teliko.
 Not qualify all the contestants in-the final
- b. *I diayonizomeni* ðen prokrinode (*oli*) ston teliko (*oli*).
 The contestants not qualify all in-the final all

- c. *Oli* ðen θa prokriθun i ðiaγonizomeni ston teliko.
 All not will qualify the contestants in-the final
Not all (of) the contestants will qualify for the final round.
- (6) a. *Oles tis kurses* o ðromeas ðen θa tis treksi.
 All the races the racer not will CL run
- b. *Tis kurses* o ðromeas (*oles*) ðen θa tis treksi (*oles*).
 The races the racer all not will CL run all
- c. *Oles* ðen θa tis treksi o ðromeas *tis kurses*.
 All not will CL run the racer the races
The racer won't run/compete in all the courses.

Notice that the $\neg > \forall$ construal also hold for constructions like (5c), (6b) and (6c). In (5c), *ola* carries contrastive stress; it is most acceptable in a context where it picks out a specific option out of a set of alternatives (Zubizarreta, 1998). In CLLD structures like (6b) and (6c), this dislocated element is often a topic, since it conveys old information (Iatridou, 1995). This is corroborated by the standard test of topichood, where the element embedded under ‘about’ is understood as a topic (7). In short, the *ola*-QP takes narrow scope even in cases where it is topicalized or focalized.

- (7) *Oson afora* tis kurses, o ðromeas ðen θa tis treksi *oles*.
 With reference the races the racer not will CL run all
With reference to the courses/races, the racer won't compete in all of them.

However, there are also sentences where *ola* is ambiguous between a wide and a narrow scope reading:

- (8) a. *Ola ta peðja* ðen piyan sto maθima
 All the children not went to-the class
- b. *Ta peðja* ðen piyan *ola* sto maθima
 The children not went all to-the class
None of the children went to class. $\forall > \neg$

*Some (not all) of the children went to class.*³ $\neg > \forall$

In short, in its interaction with negation, *ola* frequently takes narrow scope, and in some cases, it is ambiguous.

Next, we examine how *ola* behaves with the epistemic modal *bori* ‘may’. Again, what we find is a few cases with an ambiguous interpretation, and more generally, a strong preference for the narrow scope reading (10).

- (9) a. *Oli i ðiaɣonizomeni bori na prokriθun ston teliko.*
All the contestants may SBJ qualify to-the final
- b. *Bori na prokriθun oli i ðiaɣonizomeni ston teliko.*
May SBJ qualify all the contestants to-the final
- c. *I ðiaɣonizomeni bori na prokriθun oli ston teliko.*
The contestants may SBJ qualify all to-the final
It is possible that every contestant qualifies to the finals. $\diamond > \forall$
For every contestant, it is possible for them to be the one that $\forall > \diamond$
qualifies for the final round.

(10) also shows that the narrow scope interpretation is shared by all four permutations:

- (10) a. *Oli i maθites bori na pane sto maθima.*
All the students may SBJ go to-the class
It is possible that all (of) the students will go to class.
- b. *I ðromis oles tis kurses bori na tis treksun.*
The racers all the races may SBJ CL run
*It is possible that the racers will run/compete in all the courses.*⁴
- c. *Olus bori o Petros na tus ɣnorisi tus kaθiyites.*
All may the Peter SBJ CL meet the lecturers

³In (8b), the wide scope reading for *ola* is obtained when there is an interrogative preceding context, and this sentence is understood as a reply: *It was to class that all the children did not go to*. It is accompanied by stress falling on *sto mathima* ‘to class’.

⁴Certain speakers find this construction ungrammatical.

Peter is able to meet all (of) the lecturers.

In sum, the emerging patterns we have seen with both negation and modals are significant in three ways. Firstly, it is now empirically substantiated that the overt position of *ola* in most cases does not correspond to the locus of its scope-taking. This is seen clearly in constructions like (3), (5), (6) and (10), where the four possible permutations converge on the same construal. Once again, this reinforces the rejection of an approach where the position of *ola* (of the entire QP, in fact) overtly marks scope; it is empirically inadequate.

Secondly, in light of the preceding discussion, the idea of privileging as a device that recurrently yields a cross-componental mismatch (see Bobaljik, 2002) gains ground. Many a time, PF privileges one copy and LF the other. This holds true for when *ola* takes scope under another operator while either the entire or part of the QP is spelled out in a position higher than that operator, like in (3a), (6) and (10).

Thirdly and most importantly, it reveals a way in which LF privileging for scope assignment is constrained naturally: *proper containment*⁵. In other words, in certain constructions, the wide scope reading for *ola* is entailed by its narrow scope interpretation, and in this sense, the narrow scope construal *properly contains* the wide scope one (c.f. May, 1985):

$$(11) \quad \square/\diamond/\neg > \forall \models \forall > \square/\diamond/\neg$$

Let us unpack this. For certain sentences, the scope freezing effect we observe for *ola* is due to the entailment that holds between the two construals; when a wide scope reading is entailed by the narrow one, wide scope-taking is trivialized. This is the case for the constructions with *bori* ‘may’ in (10), where the semantic contribution of the wide scope construal (12) is essentially identical to the narrow scope one.

- (12) a. *Oli i maθites bori na pane sto maθima.*
 All the students may SBJ go to-the class
It is possible that all (of) the students will go to class.

⁵Many thanks to Winfried Lechner for pointing this out in one of his classes.

For [all the students], it is possible [they] will go to class.

- b. I ðromis oles tis kurses bori na tis treksun.
 The racers all the races may SBJ CL run
It is possible that the racers will run/compete in all the courses.
For [all the courses], it is possible that the racers will run/compete in [them].
- c. Olus bori o Petros na tus ynorisi tus kaθiyites.
 All may the Peter SBJ CL meet the lecturers
Peter is able to meet all (of) the lecturers.
For [all the lecturers], Peter is able to meet [them].

However, there are sentences with *bori* ‘may’ where this scope freezing effect is not related to entailment. For example, in (9) the wide scope interpretation for *ola* is semantically different to the narrow scope one in a meaningful way.

In contrast, entailment is not involved in negative sentences. The difference between a wide and a narrow scope reading in contexts with negation is non-trivial; one construal does not entail the other. Despite a narrow scope preference for *ola*, the wide scope interpretation in such constructions is semantically meaningful:

- (13) a. *Oli i ðiaγonizomeni ðen θa prokriθun ston teliko.*
 All the contestants not will qualify in-the final
Some of the contestants will qualify for the final round. $\neg > \forall$
None of the contestants will qualify for the final round. $\forall > \neg$
- b. *Oles tis kurses o ðromeas ðen θa tis treksi.*
 All the races the racer not will CL run
The racer will compete in some (but not all) of the courses. $\neg > \forall$
The racer is not competing in any of the courses. $\forall > \neg$

In sum, asymmetric entailment between two construals explains a subset of scope-freezing effects, particularly in certain constructions with the epistemic *bori* ‘may’. In these cases, proper containment is an intrinsic limitation to the scope-taking of *ola*. However, this does not extend to all cases where scope assignment appears to be frozen; for a subset of modal

constructions and for the set of negative sentences discussed here, the wide and narrow scope readings of *ola* differ in a semantically significant way.

4.2 Interim summary

To conclude thus far, on the course of this thesis we have uncovered several properties of *ola* and the constructions it is found in, including the following. Firstly, *ola* and its DP are bound under an operator-restriction relationship, a fact that emerges from its syntax (see the discussion in chapter 2). Second, the QP undergoes movement as a single full unit, targeting Spec positions. This holds true for both the A and the A'-domain, and is shown in section 3.3. Thirdly, in terms of scopal activity, *ola* participates both in wide and narrow scope construals, which under the current analysis, means that both copies of the QP chain are available for activation (see section 4.1). Wide scope for *ola* is showcased by collective construals, and narrow scope is seen from the distributive ones, and from how *ola* patterns with negation and modals.

Up until this point, we have discussed the majority of these observations in relation to the copy privileging framework we have developed. QP movement, and all movement for that matter, takes place in the syntactic component. In principle, either the lower, the higher or both copies can be privileged at the interfaces, and LF and PF may or may not converge in which copy they privilege. What we have not yet discussed is what these scope relations look like in syntax and at LF. There are a number of significant questions that are related to this.

First and foremost, we have redefined the overt-covert distinction in movement as a privileging process undertaken exclusively by the interfaces, rather than by the syntactic component. Therefore, a significant amount of labor has been transferred from LF on to overt syntax. So, if not for an LF process, what is the status of an operation like QR? In other words, how do we arrive to a wide scope configuration in a systematic, principled manner, that generates the correct syntactic form with respect to c-command?

Furthermore, scope assignment and reconstruction are still mysterious; at this juncture, we are only able to manage how they apply for thematic interpretation, and in cases with

proper containment, which suppresses certain scope alternatives for a select few constructions. How can we further regulate these processes? Moreover, reconstruction is now predicted to be a simpler process: the higher copy re-merges canonically, in accordance to certain syntactic requirements, and remains unaffected, as the lower copy is activated for both θ - and scope assignment. Put simply, it is a straightforward case of lower copy privileging at LF. Is this prediction borne out? If it is, how is this process constrained?

Scope-related effects hence reveal a twofold gap in how the current framework uses LF privileging. We need for a formal way of deriving wide scope that is based on asymmetric c-command. The alternative we develop must be an operation occurring within syntax proper, since Move is now considered an exclusive operation of syntax, and it is no longer concomitantly followed by PRONOUNCE HIGHER COPY as is typically maintained for overt movement. What's more, there is a need to explain the scope-taking patterns we have observed in a more orderly way, in an attempt to regulate the LF privileging process.

In the coming sections, we suggest and expand on a suitable approach for this gap. We examine which questions and issues it can tackle, and what it has to offer for those that remain.

4.3 The proposed analysis: an adaptation of Beghelli and Stowell (1997)

The literature on quantifiers contains numerous accounts on their scopal behavior. Amongst them, there are those that adopt a phase-based approach (see Ueda, 2013), some that focus on the semantic mechanics of the matter through principal filters, choice functions, or Skolem terms (Ben-Shalom, 1993; Reinhart, 1997; Steedman, 2012, respectively), and also those that develop a purely syntactic framework based on feature-checking, amongst them Beghelli and Stowell (1997).

These accounts all attempt to do the following: (i) to maintain transparency between the syntactic output and semantic interpretation, since scope relations subsist on structural prominence (viz. c-command, government, or both, depending on the framework), and (ii)

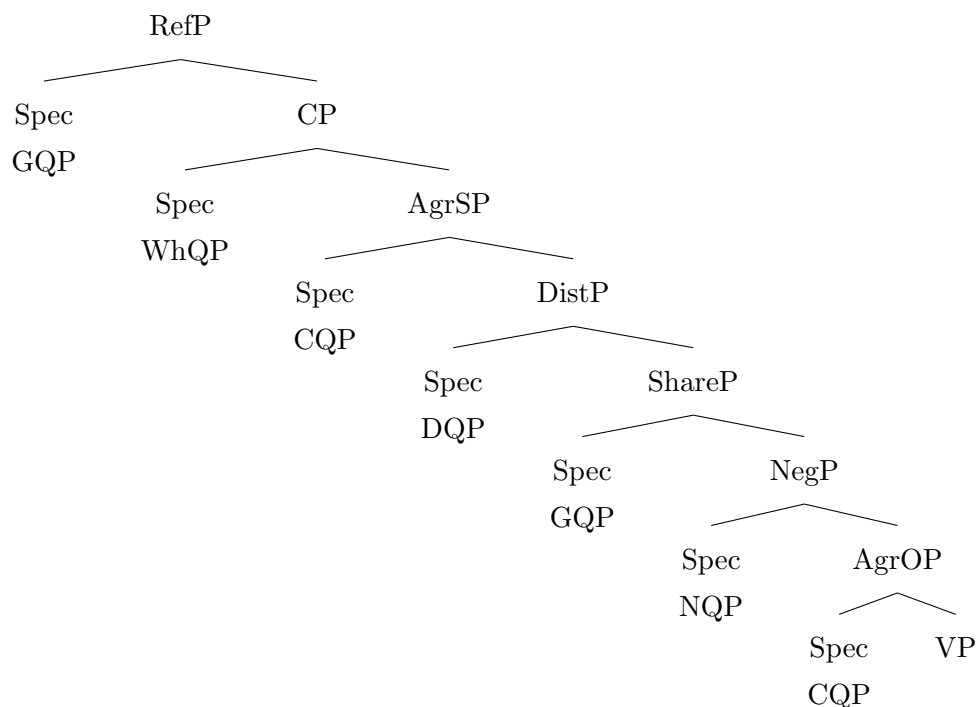
to control the overgeneration that a movement-based approach brings about.

The most notable movement-based analysis, at the epicenter of heated debate since its conception, is QR (c.f. [May, 1978, 1985](#)). Over the years, a large number of proposals on how to constrain its all-too-powerful nature have been put forward. One such effort is [Fox's \(2000\) *Scope Economy*](#): Quantifier Raising and Quantifier Lowering cannot apply when they do not affect the scope of two quantifiers, despite having other semantic consequences.

With all this in mind, the approach on quantifier scope-taking developed in [Beghelli and Stowell \(1997\)](#) is striking, for two main reasons. Firstly, it departs from the pool of alternatives for scope assignment. It counters the popular argument that the syntactic side of scope is exhausted by the QR process and the Scope Principle that modulates it (as per [Fox, 2000](#)). Instead, it adopts a view of scope assignment where the scope-operator dependency it creates has deeper semantic roots and a broader impact on interpretation, contra [Fox \(2000\)](#) (discussed also in [Gil et al., 2013](#)). Secondly, with regard to its syntax, it follows the minimalist trend of its time. The structure-building process is extended; it associates semantic distinctions, related to both scope and logico-semantic features, to designated syntactic positions through feature-checking. In this sense, scope is a by-product of agreement processes; QPs move to check their features with the head bearing a matching probing feature.

The quantifier-dedicated positions they put forward are structured hierarchically, with their order corresponding to the way in which semantic information is processed. Consequently, this hierarchy can capture the different scope possibilities that different QPs invoke:

(14)



For the current purposes, ShareP, RefP and DistP are most relevant. The former two are associated with group-denoting entities, like definite DPs and *all*-QPs, that check their [+group ref] feature. The difference between them is definiteness; specific definites must scope in Spec.RefP as scopally independent elements, whereas specific indefinite phrases may occupy either position, which gives us the scope variability typical of indefinites. The DistP layer hosts the distributive operator, with the distributee always occurring in ShareP. The dependency between these two projections is used to derive all three kinds of distributive construals.

It quickly becomes apparent that the hierarchy in (14) must be modified, for several reasons. First and foremost, we must dispense of the AgrSP and AgrOP projections. As A-landing sites for case assignment, they are no longer necessary; case is assigned *in situ* (Adger, 2003). QP movement to these positions is therefore redundant⁶.

⁶There may be a need to maintain two projections with the same positions in the Q-hierarchy as landing sites of CQPs (viz. QPs headed by modified numerals). Unfortunately, this matter lies outside the scope of this thesis. For our purposes, it suffices to claim that AgrSP and AgrOP are surplus as case-licensing

Furthermore, we must make adjustments in order to be able to accommodate Greek-specific facts. Greek has a rich left periphery; the clausal spine must be revised so as to assimilate Q-projections into the Greek clausal structure, with the structural specifications in [Roussou \(2000\)](#) as a starting point. For well-motivated reasons, [Roussou](#) maintains the following functional hierarchy for the elements of the left periphery: $C_{subordinate} > \text{Topic/Focus} > C_{force} > \text{Neg} > C_{fin} > T$. In brief, C_{fin} heads *na*, the subjunctive marker, and *as*, the hortative particle, may move to C_{force} , and C_{force} complementizers *oti* and *an* may raise to $C_{subordinate}$. This yields strings where topics and focalized XPs appear before C_{force} complementizers, but also those where they follow them. The hierarchy in (14) must be modified accordingly, to include this three-way split CP and high Topic and Focus positions.

Lastly, the hierarchy must also be able to represent modals. In their work, [Beghelli and Stowell \(1997\)](#) concentrate on quantifiers. In the present work, however, there is a need to include projections for the modal *bori* ‘may’, since it is a scopally active element that *ola* frequently interacts with. What are the relevant projections for the construals of this modal⁷? On the basis of data from section 4.1.2, the modal precedes the *na* particle; this means that it selects for a $C_{fin}P$ complement headed by the subjunctive marker. From sentences like (15) we see that *bori* follows negation. Therefore, it must merge between NegP and $C_{fin}P$.

- (15) *I diayonizomeni ðen bori oli na prokriθun ston teliko.*
 The contestants not may all SBJ qualify to-the final
The contestants cannot all qualify to the finals.

Based on crosslinguistic evidence and ample investigation on the matter, the modal sequence is: $\text{Mod}_{epistemic} > \text{Mod}_{root}$ (see [Cinque, 1999](#), for discussion). *Bori* can be interpreted either epistemically or deontically, depending on the construction; the ModP projection is thus specified accordingly⁸.

A-positions.

⁷I must thank Margarita Makri for educating me on modals.

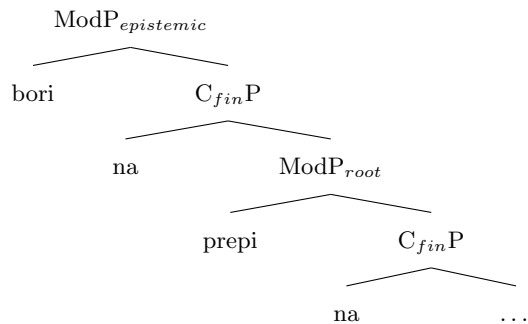
⁸For the purposes of this thesis, this simplistic account of modals suffices. Nevertheless, it must be mentioned that, in sentences with stacked modals (i), we expect the following structure:

Consequently, we arrive to the following structure. Projections are merged into the clausal spine when they are motivated.

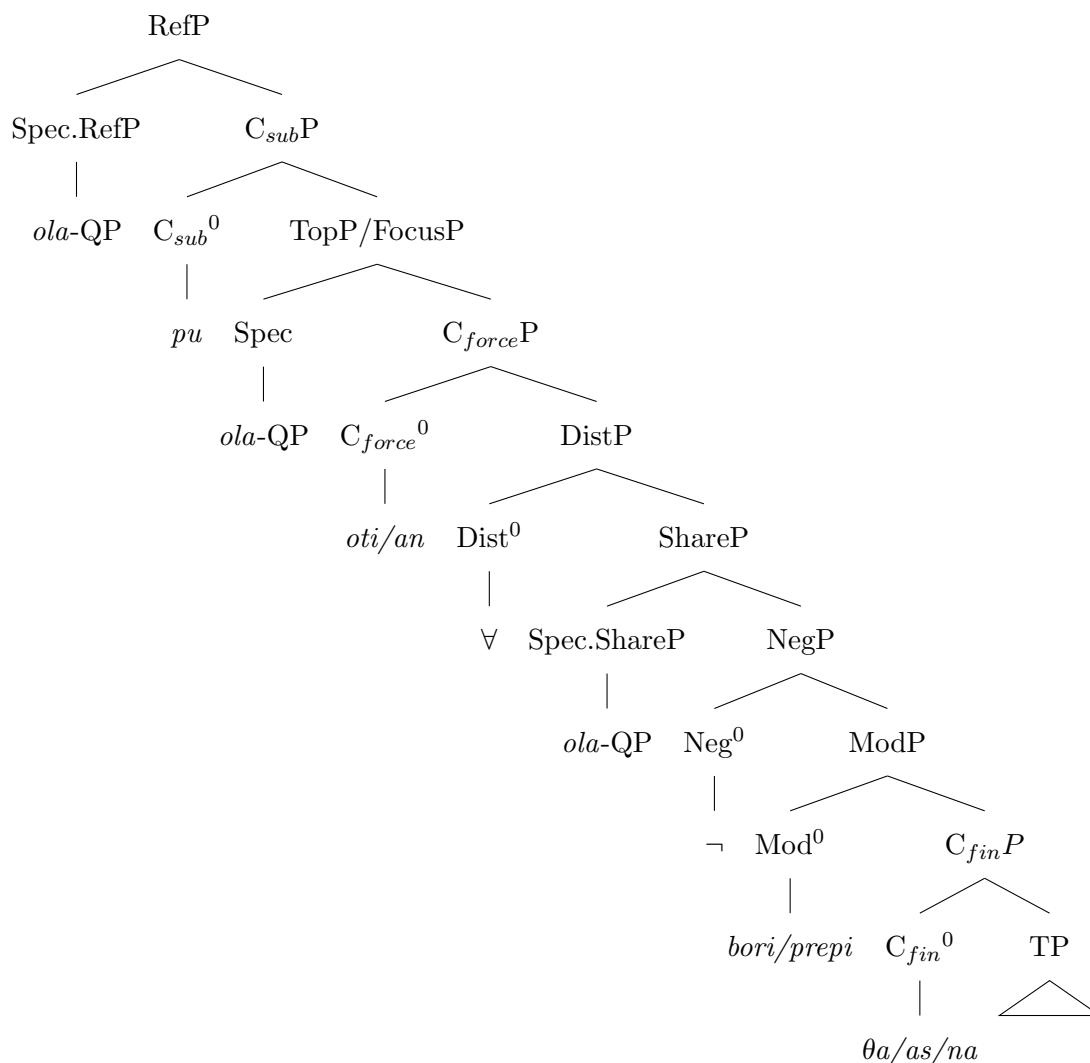
(16)

(i) Bori na prepi na kalipsis tin ora tu Jorgu, ðen ksero akoma.
 May SBJ must SBJ cover the hour of-the George not know yet
You might have to cover George's hour, I'm not sure yet.

(ii)



As it is of no direct consequence to the current analysis, the behavior of modals is not discussed further.



Let us look at the findings from section 4.1.2, and how they are represented using (16).

We first review the collective and distributive construals. As a pseudo-distributive quantifier, *ola* is not distributive in and of itself. In distributive contexts, an unpronounced D-operator, residing in Dist^0 , is at play; in collective construals, this operator is not present. In sentences like (2a) (repeated here as (17a)), the chain head occupies Spec.ShareP to be c-commanded by the D-operator. Regardless of how the QP is spelled out, at LF this copy is privileged, which yields the distributive reading. On the other hand, in collective

sentences like (2d) (repeated in (17b)), the chain head may reside either in Spec.RefP or Spec.ShareP; since the DistP does not project, there is no direct evidence for either.

- (17) a. *Ta ayorja efayan ola mia pítsa.*
 The boys ate all a pizza
All the boys had a pizza each.
- b. *Ta ayoria sigedroθíkan ola sto proavlio.*
 The boys gathered all in-the schoolyard
The boys all gathered in the schoolyard.

We saw that when it interacts with negation, *ola* most frequently takes narrow scope. The QP must move to Spec.ShareP (or to Spec.RefP) for checking purposes, but in terms of scope-taking, it reconstructs. In simpler words, the lower link of the chain, occupying a position within the c-command domain of the negative operator, is assigned scope at LF. For both subject and object QPs, this position corresponds to their θ -position. For constructions that allow a wide scope interpretation for *ola*, such as (8a) and (8b) (repeated below in (18a) and (18b) respectively), scope is assigned at the chain head, located above NegP.

- (18) a. *Ola ta peđja ðen piyan sto maθíma*
 All the children not went to-the class
- b. *Ta peđja ðen piyan ola sto maθíma*
 The children not went all to-the class
None of the children went to class.
Some (not all) of the children went to class.

Once again, no evidence emerges for the exact position of the *ola*-QP from the negation-*ola* interaction; whether it is ShareP or RefP that projects is insignificant for the wide scope construal, since both positions are higher than NegP.

Moving on, *ola* has a narrow scope interpretation in the majority of modal constructions we have examined. In these cases, the lower QP copy is activated for scope assignment. In constructions which allow a wide scope reading of *ola* ((19a) and (19b)), it is the higher

copy that is privileged. Whether this copy occupies ShareP or RefP is, yet again, unclear; both projections c-command ModP.

- (19) a. Bori na prokriθun *oli i diayonizomeni* ston teliko.
 May SBJ qualify all the contestants to-the final
- b. *I diayonizomeni* bori na prokriθun *oli* ston teliko.
 The contestants may SBJ qualify all to-the final
It is possible that every contestant qualifies to the final round.
For every contestant, it is possible for them to be the one that qualifies for the final round.

Lastly, there are several instances where part of or the entire QP is topicalized or focalized, and is pragmatically and prosodically foregrounded. In CLLD-type structures like (20a) and (20b), the object QP raises above the subject in ShareP to TopP. In sentences like (20c), where *ola* receives emphatic stress, the QP resides in FocusP. Notwithstanding, in such constructions *ola* takes narrow scope; its wide scope reading is entailed by the narrow scope one, and the pragmatic salience that focalization and topicalization bestows on it does not change that. In terms of LF privileging, the chain tail is activated.

- (20) a. *Olus o Petros* bori na tus ynorisi *tus kaθiyites*.
 All the Peter may SBJ CL meet the lecturers
All (of) the lecturers, Peter is able to meet.
- b. *Tis kurses i ðromis* bori na tis treksun *oles*.
 The races the racers may SBJ CL run all
All of the courses, the racer is able to run/compete in.
- c. *Oli* bori na pane *i maθites* sto maθima.
 All are-able-to SBJ go the students to-the class
ALL of the students are able to go to class.

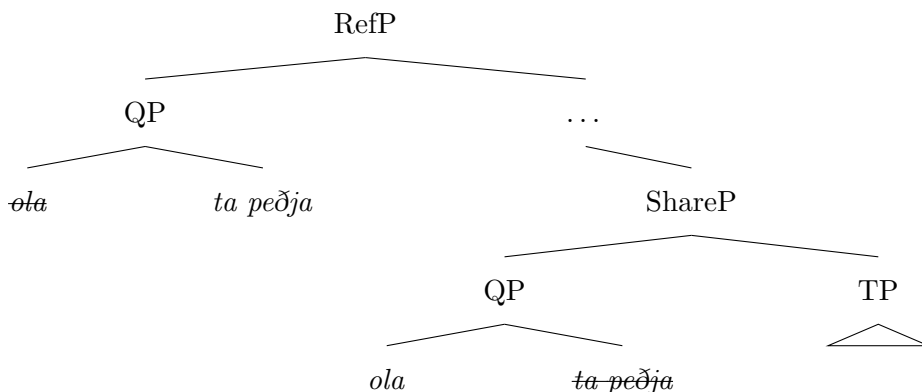
Before closing, it is important to address the issue of the most suitable surface position for subjects (see sections 3.3.2 and 3.4.3). As part of the Q-hierarchy, we introduced ShareP and RefP and argued, in accordance with *Beghelli and Stowell (1997)*, that the specifiers

of these projections are *ola*-QP landing sites. These positions are suitable candidates for unmarked subject positions in the A'-domain, for constructions where the QP is not interpreted as a topicalized or focalized constituent. Structurally, RefP c-commands all other projections; this yields the correct word order for sentences like (21a). ShareP is situated between C_{force} P and NegP; it is therefore a suitable landing site for an *ola*-QP in constructions like (21b), where the subjunctive marker *an* occupies C_{force} .

- (21) a. *Ola ta peđja pu efayan apo tin turta arostisan.*
 All the children that ate from the cake fell-ill
All the children that had some of the cake got sick.
- b. *An ta peđja đen fane apo tin turta ola, bori na mini kanena*
 If the children not eat from the cake all maybe SBJ remain some
 komati.
 piece
If not all of the kids have a piece of cake, there might be a few pieces left over.

What's more, these positions can accommodate [...DP+Q...] permutations like (22a). In such constructions, both ShareP and RefP are projected into the structure. The QP raises to Spec.ShareP, where *ola* is spelled out, and then moves further to Spec.RefP, where the DP is pronounced (22b):

- (22) a. *Ta peđja ola piyan sto maθima.*
 The children all went to-the class
The children all went to class.
- b.



4.3.1 Some clarifications and some potential problems

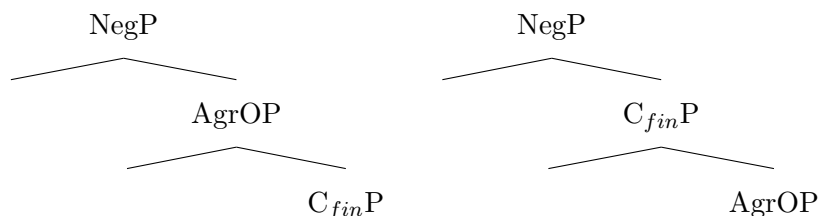
There are several points that must be clarified, and a few likely problems that must be addressed. First and foremost, the present analysis departs from [Beghelli and Stowell \(1997\)](#) with respect to the status of movement. They claim that quantificational expressions reach their Q-positions at LF. In this work, movement is a purely syntactic process; these elements raise to the left periphery during syntactic computation. The syntactic output is transparent to the PF interface, and the rules that govern PF decide which copy to spellout.

This leads us to the second point: PF and LF are independent, unaffected and uninformed of the others' privileging preferences. In most of the cases we reviewed above, part of or the entire QP is pronounced in its surface position on the left periphery of the clause, while oftentimes scope is assigned in its base position. In short, spellout and scope assignment may or may not coincide.

Thirdly, we must draw attention to an additional way in which we diverge from [Beghelli and Stowell \(1997\)](#): reconstruction effects. Their landing sites for reconstructed elements are AgrSP for subject QPs, and AgrOP for object ones; QPs cannot reconstruct to their base positions. With the disposal of these projections, we make use of θ -projections, especially because reconstruction is not an instance of movement, but simply the privileging of the lower copy. This, in fact, brings a number of welcome consequences. There are several cases where quantifier lowering to Agr projections does not have the desired outcome. For

example, in negative contexts, a subject QP that would reconstruct to Spec.AgrSP for narrow scope, would find itself c-commanding the negative operator. Since scope assignment is particularly sensitive to c-command relations, a narrow scope reading for *ola* would not be possible in these cases. The same holds for constructions with modals. In addition, an AgrOP in the modified hierarchy would have either of the two positions:

(23)



Both options create a possible landing site for the *ola*-QP that is bound to yield ungrammatical linearizations. It is an empirical fact of Greek that no elements can intervene in the sequence $\text{Neg} > \text{C}_{fin} > \text{T}$; negation and C_{fin} particles appear to cliticize on the verb in T (Spyropoulos, 1999). In essence, maintaining AgrSP and AgrOP as QP sites that can be privileged raises problems that can be obviated with their disposal.

The first potential problem that must be addressed is that this approach adds a large number of functional categories to our inventory. The counterargument to this claim is that this extension is constrained. The lexical semantics of each quantifier are specified through a set of features, of which the most salient across a number of quantifiers are chosen to create a select few classes. In other words, instead of disregarding their inherent semantic properties and justifying raising through stipulation, we make use of them to drive QP movement, with the corollary of getting the quantifier to the position in which it can receive a wide scope interpretation. Another way to look at this is through the notion of *Economy of Feature Projections*, explicated in Hegarty (2005). Under this approach, a minimal suite of features is entered in each numeration and then projected onto functional categories. These in turn contain at least one matching feature with the features of the lexical array. At bottom, the extension of the functional inventory is the more rational option; it employs properties that are already present in a principled way, and avoids

stipulation, a trap that the Scope Principle (Fox, 2000) cannot easily escape.

The second problem once again concerns the removal of the Agr projections. This step may be required in order to capture the data at hand, but it runs contrary to a critical argument of *Beghelli and Stowell (1997)*, and concomitantly uncovers a pivotal, long-standing problem between syntactic and semantic representation. According to *Beghelli and Stowell*, every QP must syntactically bind a trace as a variable at LF. This, in their view, is what renders θ -positions unavailable for reconstruction, since in these positions, the QP would not have any trace to bind. This spotlights the underlying clash between copy theory and the operator-variable relation that holds for a chain head and tail. Essentially, syntax considers chain links as equivalent, whereas the semantic component treats them as intrinsically asymmetrical in status.

Finally, the last issue that must be discussed is how this scope-calculating mechanism is to be restricted. The outlined approach follows *Beghelli and Stowell (1997)* closely in creating further syntactic structure, where movement to these projections happens for independent reasons. In other words, the checking of the inherent logico-semantic features encoded into the various types of QP is the primary force behind the creation of the movement chain. These higher projections may or may not correspond to the copies selected for scope assignment.

However, it looks as if this machinery is too powerful for the data in question. The generalization that arises is simple: in constructions with negation or with the modal *bori* ‘may’, there is a strong preference for the narrow scope reading of the QP. The cases where the QP scopes over negation or the modal are few. For modal contexts, this is largely attributed to *proper containment*. In negative contexts, it is pointed out that the difference between narrow and wide QP scope is semantically significant. Nevertheless, the latter interpretation appears to be rare, and so the *Beghelli and Stowell* system is overly powerful for the simple picture presented.

Regarding this matter, there are two things that must be said. Firstly, in Greek there is significant inter-speaker variation in scope judgements. The data in this thesis represents a small portion of readings received from native speakers; for example, there is a non-trivial amount of speakers that assign wide scope to the QP in negative contexts. Documenting

these preferences and deducing tendencies is a whole new study on its own, which lies outside the scope of this thesis. However, with this powerful scope mechanism in place, we are able to capture the individual grammars of a variety of speakers. This is one of the advantages of this system.

Secondly, under- and over-generation is a recurring problem for the majority of proposals dealing with scope assignment. For the [Beghelli and Stowell](#) system in particular, the sensitivity to logico-semantic and syntactic properties encoded in the scopally-active elements comes at the cost of an overly potent system. This is an unresolved problem that requires further investigation.

Chapter 5

Discussion

In conclusion, this thesis is an investigation into the Greek quantifier *ola* in the context of the floating phenomenon. The aim of this work is twofold. The first is to contribute to a body of work on floating quantification in a way that builds on current trends in syntactic theory. There is a lot about floating quantifiers that is largely accepted, like the divide between adverbial and nominal analyses. Nevertheless, there is room for novel proposals, especially as the field shifts towards exploring the interfaces and how the computational load is divided amongst linguistic components. The second aim is to add to the currently growing body of research on quantification in Greek (see, for example, [Baltazani, 2002](#); [Margariti, 2014](#)). Moreover, Greek was chosen because it displays some uncommon properties in floating constructions: it allows for (i) *ola* to appear in a sentence-final position, (ii) floating from both subject- and object-related *ola*, and (iii) for floating constructions where *ola* asymmetrically *c*-commands the DP, in addition to the standard paradigm where the DP precedes *ola*.

In outline, we first set out to determine whether *ola* is to be classified as a quantificational adverbial, or whether it is part of the nominal projection. We concluded that the latter is the case, through a discussion of its basic syntactic characteristics and distribution. Next, we examined its syntax further, to eliminate certain analyses and to identify the gap that our analysis had to fill. We then put forward the first part of our proposal; we outlined the structure-building process and how labor is divided across the three components. Lastly,

we looked at the scopal behavior of *ola*, and developed the missing syntactic piece of our proposal: the Q-hierarchy adapted from [Beghelli and Stowell \(1997\)](#).

5.1 Problems and shortcomings

There a number of questions posed throughout that our analysis has not been able to address, and a number of problems that remain unsolved. What follows is a critical discussion of each one.

5.1.1 The semantic contribution of *ola*

The first drawback is that the discussion on the semantic contribution is lacking. The semantics of a quantificational expression go beyond its scope effects and the elementary knowledge that *ola*, as a universal, is downward-entailing in its first argument. What is the denotation of the *ola*-QP? How is it composed, and what does each component bring to the denotation?

We have argued in favor of using the lexical semantics of quantifiers to saturate structure-building; we adopted a Q-skeleton specified by shared distributional and lexical properties. This requires us to have well-informed answers, to be able to further support the present framework. Besides, further investigation in this direction may resolve the issue of both Spec.RefP and Spec.ShareP being available as subject landing sites, particularly in cases where evidence for one or the other is not readily available. By specifying the meaning of *ola*, it may be possible to differentiate between the two more systematically, and beyond [Beghelli and Stowell's](#) distinction based on definiteness.

Moreover, research into definite determiners, quantification, and the interaction between the two continues to be relevant; there are long-standing, unsettled issues to be discussed. With the addition of a universal element like *ola*, aspects of its meaning related to maximality may be clarified for the definite determiner. At least, this will elucidate the differences and similarities between *ola* and the definite determiner. If the two prove to be more alike

than not, it will shed some light on how and why speakers use a configuration that signifies the same thing twice.

An investigation into these matters must address the following points¹. To begin with, the properties of both the singular and the plural definite determiner must be determined. In contexts with *ola*, do both have referential, group- and kind-denoting properties? Does each denotation have a presupposition (or an entailment) of maximality? If so, how is it defined – is the domain ordered via a part-whole relationship (as per Link, 1983, 1998), or by the monotonicity of its informativeness (as per von Fintel et al., 2014)?

Then, the characteristics of *ola* must be looked into. First and foremost, does it *quantify* over sums (or groups), or is it sum- (or group-) *forming*? Secondly, how is its distributivity, the concomitant of its universal nature, encoded in its denotation, especially in view of its pseudo-distributive behavior that we saw in section 4.1.1? In essence, what must be shown is how the D-operator patterns at a DP-internal level; its external effects are already known. The point of reference for comparison must, in this case, be *each* and *every*, the true distributive quantifiers.

Ultimately, the discussion must turn to how *ola* and the definite determiner interact compositionally².

5.1.2 Constraining privileging: the problem of overgeneration

The second issue concerns the conditions on the privileging processes. In this work, we have developed a proposal that describes the syntax behind the linearization and scope readings we find with *ola*-QPs, and we have suggested a way by which computational labor is divided amongst the three components. But as for the conditions and rules that apply at each component, the actual work that is carried out, very little has been discussed. To give an example, why distributed deletion proceeds the way it does is a question that is only partially answered. We know that instances where the same part of the copy is

¹This is undertaken by Kostopoulos (in progress).

²I am truly indebted to Norman Yeo and Margarita Makri. Without your help, this follow up investigation in Kostopoulos (in progress) would not have had any direction. Thank you for your ideas, your advice, and your encouragement.

pronounced twice are prohibited by the chain reduction procedure, since linearization would otherwise not be able to converge (see Boskovic and Nunes, 2007). But why is it that, at Spellout, the split never occurs at a different site? Why is a [Q+D ... NP] linearization not permitted?

With regard to the constraints on the LF privileging process, things are equally uncertain. It is important to note that, in this thesis, scope construals are not differentiated structurally. They do not guide the structure-building process by matching one interpretation to one particular structure, and the other to another structure; sentences with an ‘overt’ *ola*-QP in its Q-position, above another scope-sensitive expression, do not always have a wide scope interpretation for the *ola*-phrase.

The ambiguity involved in the present data set is of the type that is not readily manifested in the structure-building process. Instead, we posit that syntax generates a structure that allows for both construals, and that the choice of interpretation lies beyond the level of syntax. This is by no means applicable to all cases of ambiguity, because they are not all of the same type. There are instances of structural ambiguity, which are resolved during syntactic composition; for example the choice of whether to attach a PP as a complement within a DP, or as a modifier at the matrix level, is a matter that is settled at the level of syntax, during sentence processing (c.f. Grillo, 2017).

In principle, our suggestion is that scope can be assigned in any position that contains a copy of the QP. The reasoning behind this hypothesis is that scope judgements in Greek vary inconsistently for speakers, at an individual level and across speaker groups. As a result, how LF privileging is constrained with respect to scope assignment is, at this juncture, an open issue. Further investigation into the matter must be quantitative, if it is to determine general tendencies; at this stage, what is needed is to have a comprehensive view of the scope-taking preferences of Greek speakers. Once we arrive at certain tangible patterns, we may once again return to the open issue.

At bottom, the problem we are called to face is overgeneration. Due to the fact that there are still unanswered questions on how the LF and PF operate, and because the proposed system is so minimal, it is too powerful and overgeneration is a significant problem.

With selective and distributive spellout in place, why is it that they are not used in more types of constructions? Selective spellout has been adopted to describe the distinction between *wh*-raising and *wh*-in-situ (Tsoulas and Yeo, 2017), and to capture the behavior of subclass of English possessives (see Tsoulas and Woods (to appear)). Aside from these cases, these processes may be at play more frequently than thought. Research in this direction must revisit construction where elements in a dependency relation appear to be separated. Evidence for XP-copies along the chain is the first argument in support of split privileging, bearing in mind patterns of linearization.

Answering questions on the conditions that apply at LF and PF will help to eliminate certain readings for LF, and certain linearizations for PF. This will naturally minimize the effects of overgeneration.

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