

Greek *poli* and Its Polysemous Semantic Character

Zaina Tsouhlaris

Department of Linguistics and Translation, Taibah University, Madinah, KSA

Email: zh1424@yahoo.co.uk

How to cite this paper: Tsouhlaris, Z. (2024). Greek *poli* and Its Polysemous Semantic Character. *Open Journal of Modern Linguistics*, 14, 735-762.

<https://doi.org/10.4236/ojml.2024.144040>

Received: July 6, 2024

Accepted: August 25, 2024

Published: August 28, 2024

Copyright © 2024 by author(s) and Scientific Research Publishing Inc.

This work is licensed under the Creative

Commons Attribution-NonCommercial

International License (CC BY-NC 4.0).

<http://creativecommons.org/licenses/by-nc/4.0/>



Open Access

Abstract

The semantics of Modern Greek adjective *polis* “many, much, more, very, a lot” is of ultimate semantic interest. Greek *polis* “many, much, more, very, a lot” appears to be under the influence of polysemy and grammaticalization as it appears in specific syntactic environments and can be analyzed as a Q-Mod following Tsouhlaris (2011), which makes *poli* a quantificational operator over mereological set relations, combining with a complex event nominal and its incremental theme participant. It can also be analyzed as a D-quantifier in the sense of Barwise and Cooper (1981) as it appears in a nominal position of determiner combined with a plural countable noun and quantifies over the nominal. As an A-quantifier, *poli* is also analyzed as a syntactic operator which forms a constituent from some projection of V and finds its first argument in the verb and its second argument in the whole VP. In addition, *poli* is also a degree intensifier modifying over adjectives and adverbs as shown in this piece of research.

Keywords

Greek Semantics, Quantificational Modifiers, A- and D-Quantifiers, Intensifiers, Scalarity, Degree Quantification

1. Introduction

The semantics of Greek adjective πολύς, πολλή, πολύ “*polis*, *polli*, *poli*” is of ultimate interest because of its polysemous nature that allows it to be interpreted either as a quantifier or an intensifier.

Our intention is to give a thorough semantic analysis of Greek *poli* taking into consideration all the possible syntactic constructions it engages in, so that it is viewed both as a quantifier and a modificational intensifier. To start with, we will attempt to draw a precise profile of Greek *poli*, with the help of Babiniotis (2002)

and Stavropoulos (1995).

Babiniotis (2002) describes the Greek *πολύς, πολλή, πολύ* as an adjective that refers to the one that exists in great quantity; to put it in Babiniotis' words: "αυτος που υπάρχει σε μεγάλη ποσότητα" (Babiniotis, 2002: p. 1448).

Babiniotis gives specific examples such as those mentioned below:

- (1) Efage **poli** zahari
He ate a lot of sugar
- (2) Bgazi **polla** hrimata
He earns a lot of money
- (3) Mazeutike **polis** kosmos
A lot of people came over

When *poli* in its neuter form, it combines with mass nouns and means "much, a lot of, lots, a good/great deal, a large quantity, plenty" (Stavropoulos, 1995: p. 724), as demonstrated in Stavropoulos' examples mentioned below:

- (4) den ehoume **poli** hrono
we haven't much time
- (5) pinete **poli** gala
do you drink much milk?
- (6) pinome **poli** tsai
we drink lots of tea

Polis can also be combined with countable nouns, and in this case, it will mean "several, many" as in Stavropoulos' examples mentioned below:

- (7) **polloi** apo mas
several/many of us
- (8) **polles** fores
several/many times

Babiniotis (2002) also mentions another meaning of *polis*: "αυτος που υπάρχει ή εμφανίζεται σε μεγάλο βαθμό, με μεγάλη ένταση" (ibid) which means the one that appears to be in a great degree or great intensity; this is shown in his examples mentioned below:

- (9) **Poli** kako gia to tipota
much ado about nothing (Shakespear's work)
- (10) Kani **poli** fasaria
He makes a lot of noise

Babiniotis also talks about the neuter *πολύ* as the adverb that relates not only to great quantities "(ποσοτικό) σε μεγάλο βαθμό" (Babiniotis, 2002: p. 1442) but also to a great degree as in his examples mentioned below:

- (11) Tin agapo **poli**
I love her very much

(12) Ine **poli** eksipnos

He is very smart

Another interesting construction of *poli-* is when it appears as part of a compound, combined with a root. In Babiniotis' (2002: p. 1443) examples of the neuter πολύ also appears as a prefix (συνθετικό) that describes “μεγάλη ποσοτητα, ένταση ή έκταση” as it shows in his examples:

(13) **πολύ**-ανθρωπος “populous, crowded”

(14) **πολύ**-μορφος “multiformed”

(15) **πολύ**-ασχολος “[very] busy”

(16) **πολύ**-σημαντος “of many meanings”

πολύ also describes “επίταση της σημασίας του β' συνθετικού”; this means that it is used to intensify the meaning of the second part of a compound as given in Babiniotis' examples below:

(17) **πολυ**-μιλώ “talk too much”

(18) **πολύ**-διαβάζω “read a lot”

(19) **πολυ**-τραβάω “pull too much”

(20) **πολυ**-δυστυχισμένος “very misfortunate”

The same Greek lexeme πολύ also describes “μετριασμό αυτού που δηλώνει το β' συνθετικό του ρήματος” which means the midigation or the moderation of what the second part of a compound like those below taken also from Babiniotis (2002):

(21) δεν **πολυ**-καταλαβα “I didn't understand well”

(22) δεν **πολυ**-ασχολούμαι με αυτά “I don't bother much with such things”

Or it can also describe μεγάλη συχνότητα, that is a great frequency as in examples like those mentioned below:

(23) **πολυ**-τραγουδισμένος “much sung”

(24) **πολυ**διαβασμένος “well read”

It appears that we are dealing with a polysemous case.

Often polysemy interferes with the semantic analysis of such lexemes which they can only be given a specific semantic interpretation after we consider their morpho-syntactic position in the sentence. This is the case of Greek adjective πολός, πολλή, πολύ “polis, polli, poli” as it appears in distinct morpho-syntactic environments that allow it to claim various semantic interpretations. We speculate that it expresses not only quantity as a quantificational operator but also degree modification and/or intensity as a modificational intensifier. In cases, it expresses quantity, πολός, πολλή, πολύ functions as an adjective of great number or quantity (see Stafilidis, 2000: p. 1209).

Stafilidis (2000) also translates it as an adjective, meaning not only of a great number but also of a great intensity or great duration (see Stafilidis, 2000: p. 1209).

2. Paving the Way for a Semantic Analysis of Greek πολύς, πολλή, πολύ “Polis, Polli, Poli”

As we read the above examples taken from Babiniotis (2002) and Stavropoulos (1995), we can't help ourselves noticing the repetition of the same sounds. It is very important to draw the reader's attention to the orthography of the 3 genders of this Greek adjective and specify that there is a kind of homophony that one might detect between the feminine and the neuter. However, the Greek orthography of the feminine πολλή “polli” shows us the feminine being spelled with a double λλ “ll” and the Greek letter ή “i” at the end of the word, which we will keep in our English transliteration to be able to differentiate it from the neuter πολύ “poli” which in Greek it is spelled with one λ “l” and the Greek letter ú “i”. The choice of one or two l in the transliteration of the feminine and the neuter will allow us to judge which we refer to in our examples.

There is also the same pronunciation for *polloi* as in masculine singular πολλοί “poli” as in example πολλοί άνδρες, *polloi andres*—“many men, which means “many” but it is also pronounced as *poli*. Again, the Greek orthography makes it easy to identify the difference and to make it easy for our readers we will transliterate it as “polloi”.

For Greek native speakers this is also made apparent by the construction of the sentence, an adjective engages in.

Such discussion should not allow us to deviate from our original goal: the semantic analysis of Greek *polis, polli, poli* “many, much, a lot of, very”.

It appears that we are dealing with a polysemous case; according to Cruse (2006) a word is said to be polysemous when it “has more than one distinct, established sense” (Cruse, 2006: p. 133). Often polysemy interferes with the semantic analysis of such lexemes and they can only be given a specific semantic interpretation after we consider their syntactic position in the sentence. This is the case of Greek πολύς, πολλή, πολύ as it appears in distinct, syntactic environments that allow it to claim various semantic interpretations.

We speculate that such a Greek adjective expresses quantity, degree modification or intensity. When it expresses quantity, πολύς, πολλή, πολύ functions as an adjective of great number or quantity (see Stafilidis, 2000: p. 1209). Stafilidis (2000) also mentions adjective *polis* meaning not only “of great number” but also “of great intensity” or “great duration” (cf. Stafilidis, 2000: p. 1209).

Etymologically, all the examples with *poli* have the same root, coming from the neuter of the adjective πολύς, which can take different semantic interpretations according to the syntactic constructions it allows. Stamatakos (1999) explains that the adverb πολύ is derived from the neuter πολύ of the adjective πολύς, πολλή, πολύ and they share the same etymology with the ancient Greek πουλύς “poulis” and its neuter form πουλύ “pouli”.

2.1. Poli as a Case of Polysemy

Ravin and Leacock (2000) believe that “(I)n classical terms, a word is polysemous

if a single set of necessary and sufficient conditions cannot be defined to cover all the concepts expressed by the word.” (Ravin & Leacock, 2000: p. 15); it appears that this is the case with Greek *polis* which according to Greek dictionaries it claims a variety of meanings: “much, many, a lot, great number/duration/intensity/degree, very”.

Let us examine *polis* in its masculine plural form πολλοί “many”, pronounced “polloi”, its feminine singular form πολλή “much”, also pronounced “polli” and its neuter, singular form πολύ “much, a lot, very”, also pronounced “poli”.

The masculine plural πολλοί -polloi- combines with countable nouns like andres “men” and translates as “many”, the feminine singular form πολλή combines with mass nouns and translates as “much, great”, while the neuter singular πολύ combines with mass nouns like *krasi* “wine” or *fasaria* “noise” and translates as “much”; both appear in the nominal domain, placed before the noun.

The neuter, singular form πολύ -poli- also appears as an adverb at the end of the sentence and we could say that functions as a quantifier or an intensifier according to the syntactic construction of the sentence. The adverbial πολύ -poli- is derived from the neuter of the adjective πολύς, πολλή, πολύ and it is placed as an adverbial of quantity meaning “a lot, much” (e.g., *ipie poli* “He drank a lot”) or an intensifier meaning “very” (e.g., *ine poli omorfi* “she is very beautiful”).

Because of the above characteristics, we already claimed that Greek *poli* demonstrates a case of polysemy and homophony.

On the one hand, *poli* is a homophone, because of similar pronunciation as the masculine plural πολλοί, the feminine singular πολλή, the neuter singular πολύ, and the adverbial πολύ; they are all pronounced “poli”. We claim that *poli* is a case of homophony. According to Matthews (2014), homophones are words that are spelled differently but sound the same.

On the other hand, *poli* allows a variety of meanings which are adjusted according to the syntactic position it takes; note the following examples:

- (25) Efaga **poli** ligo
I ate very little
- (26) Efaga **poli**
I ate a lot
- (27) Efaga ligo **poli**
I ate a bit too much

From the above examples, it appears that *poli* has the ability to carry more than one meaning, which is what we call polysemy in Semantics. In (25) πολύ means “very”; in (26) πολύ means “a lot” while in (27) πολύ means “(too) much”.

Native speakers of Greek do not misunderstand such a word because of its syntactic position and in these terms described, we were able to classify it as a polysemous homophone. Cruse (2006) mentions that an established sense is considered polysemous if native speakers feel that multiple senses are related in some way; this is the case with Greek *poli* whose meanings vary from great quantity, to great intensity allowing it to function either as a quantifier or as an intensifier, as

we will see in our discussion in the following chapters.

[Stamatakos \(1999\)](#) enters both the adjective and the adverb as the same entry since the adverb is considered to be derived from the neuter singular form of the adjective. However, [Babiniotis \(2002\)](#) differentiates between the two and enters them in his dictionary as two different entries.

Regarding the syntax of Greek *poli*, we must mention that the masculine singular πολύς “polis” and the masculine plural πολλοί “polli” combine with a countable noun. Similarly, the feminine singular πολλή “polli” and the feminine plural πολλές “poles” combine also with a countable noun. The feminine singular also combines with a mass noun. The neuter singular πολύ “poli” combines with a mass noun while its plural form πολλά “polla” favors a countable noun like the masculine and feminine forms of this Greek adjective.

2.2. Semantic Analysis of Greek Poli

It would be helpful to introduce to our readers the Greek adjective πολύς, πολλή, πολύ as an adjective which means “‘much, a lot (of); too much’ (pl. many; too many) comparative perissoteros ‘more’ (note that Greek does not normally distinguish between ‘much/many’ and ‘too much/too many’)” ([Holton et al., 2006](#): p. 315); πολύς, πολλή, πολύ is conjugated like an adjective and it has 3 genders and cases as it is typical of Greek adjectives. However, it favors a quantificational interpretation and it is its quantificational properties that give it a specific order among adjectives i.e., it is placed before any other. [Alexiadou \(2003\)](#) notes that “quantificational adjectives and adverbs appear higher than non-quantificational ones” ([Alexiadou, 2003](#): p. 12); this is demonstrated in the following examples from [Tsouhlaris \(2011\)](#) mentioned below:

“(27) a) ta polla kokina spitia

The + many + red + houses nom.pl.NTR

‘The many red houses’

b) *ta kokina polla spitia

*the + red + many + houses NOM.pl.NTR” ([Tsouhlaris, 2011](#): p. 46).

[Joseph and Philippaki-Warburton \(1987\)](#) describe *polis* as a declinable quantifier, “fully adjectival in all respects” ([Joseph & Philippaki-Warburton, 1987](#): p. 55).

Polis, in terms of syntax, occurs preminally, with or without the definite article; it can also be placed after the head noun as demonstrated in [Tsouhlaris’ \(2011\)](#) examples (31 a-c), quoted below:

“(31) a) polla pedia den agapoun to sholio

‘Many children do not love school’

b) ta polla pedia den agapoun to sholio

‘Most (lit. ‘the many’) children do not love school’

c) pedja polla den agapoun to sholio

‘Many children do not love school’” ([Tsouhlaris, 2011](#): p. 47).

Greek *poli* appears in a variety of syntactic positions which allow an alteration

to its meaning accordingly.

Our investigation will explore *poli* in the nominal domain as it appears with our examples:

- (28) I **polli** katanalosi tou krasiou blaptei
The great consumption of wine is harmful
- (29) **polloi** andres irthan sti giorti
Many men came to the party

But also in the verbal domain where *poli* appears with quantificational properties as in:

- (30) ipian kراسi **poli**
They drank much wine

Poli appears as a modifier to the following example:

- (31) ine **poli** omorfi
She is very beautiful

Or as an intensifier as in:

- (32) odigi **poli** grigora
He drives very fast

An adverbial like *poli* in (31) appears as a modifier to the adjective *omorfi* “beautiful”, while *poli* in (32) appears as an intensifier. Adverbial modifier alters the quality described in the adjective it modifies, while intensifiers are used exclusively to modify adjectives and adverbs and are usually found before the word—that is the adjective or the adverb, it modifies. In the last two examples above, *poli* is placed before an adjective (as in (31)) or before an adverb (as in (32)) as expected from an intensifier.

In example (28) above *polli* is combined with a mass noun, while in (29) *polloi* is combined with a countable noun *andres* “men”. In (30) *poli* is combined with *krasi* “wine” which is another mass noun while in (31) our last example *poli* functions as an adverb.

We intend to analyze each and every one of these positions where we find *poli* functions as a quantifier in the sense of Tsouhlaris (2011) or in the sense of Barwise and Cooper (1981) or in the sense of Lewis (1975) or as an intensifier, following Kennedy and McNally (2005).

We will examine the semantic function of πολύς, πολλή, πολύ, in specific morpho-syntactic structures, concentrating on the neuter of the adjective but also other relevant syntactic constructions its masculine and feminine gender favor. This will allow us to analyze Greek *poli* not only as a quantifier but also as an intensifier regardless its appearance in syntactic constructions or the morphological building of words that contain it as a quantificational operator over sets or as a modificational intensifier of an adjective that functions in the nominal domain, or in the form of an adverb that functions in the nominal or verbal.

3. Greek πολύς, πολλή, πολύ “Much, of Great Quantity” Analyzed as a QMod

Initially we will begin our discussion with the Greek example mentioned above in (28) *I polli katanalosi tou krasiou blapti* “the much consumption of wine is harmful”. Our analysis will be following Tsouhlaris (2011).

In the analysis of our example (21) *I polli katanalosi tou krasiou* “the much consumption of wine” we will follow Tsouhlaris (2011) and her analysis of Greek QMods *oliki* “entire, whole” and *meriki* “partial” as demonstrated in her examples *I oliki katastrofi tis polis itan anapofekti* “the total destruction of the city was inevitable” and *I meriki katastrofi tis polis itan anapofekti* “the partial destruction of the city was inevitable”. Because of their quantificational properties, Tsouhlaris views such adjectives as Quantificational-Modifiers or Q-Mods for short.

QMods are syntactic modifiers which take a semantic analysis that suits quantifiers, i.e., they favor operations over sets. “QMods are analyzed as ‘measure’ quantifiers of scalar semantics that appear in a syntactic position common to adjectival modifiers; semantically, they function as ‘total’ and ‘partial’ quantifiers which operate on proportional, homomorphic sets of degrees and amounts. The way to capture the relation between the degree and amount sets is by a homomorphism, i.e., the semantic ‘mapping’ between the two mereological sets of ‘city’ and ‘destruction’” (Tsouhlaris, 2011: p. 67).

Tsouhlaris explains as she investigates her default examples *I oliki katastrofi tis polis*, or *I meriki katastrofi tis polis* and their English counterparts: *the total destruction of the city was inevitable* or *the partial destruction inflicted on the city was inevitable* which also allow a similar semantic analysis.

The focus of this paper is another Greek quantifier *poli* “much, of great quantity” which we believe it can take a similar semantic analysis as the QMods described by Tsouhlaris (2011).

Polis along with *merikos* and *ligos* belong to a particular class of Greek adjectives that semantically could be viewed as expressions of Proportionality in the sense of Tsouhlaris (2011). QMods, maintain their quantificational properties even when they appear in syntactic positions common to adjectival modifiers.

We repeat our default example for *polis*: (28) *I polli katanalosi tou krasiou* “the much consumption of wine”, according to which, *polis* can be analyzed as a QMod. In this example, we are dealing with the feminine form of the adjective in its singular. Our default example (28) is repeated below:

(28) ή πολλή κατανάλωση	τού κρασιού	βλάπτει
I + polli + katanalosi (Fem. SG. Nom.)	του krasiou	blapti
“The much consumption of wine is harmful”		

Polis is seen as a quantificational operator over mereological set relations, combining with a complex event nominal and its incremental theme participant. *Polis* combines with the deverbal noun *katanalosi* which etymologically hides a downward movement in its prefix *kata-*; *kata-* points to a sort of downward movement

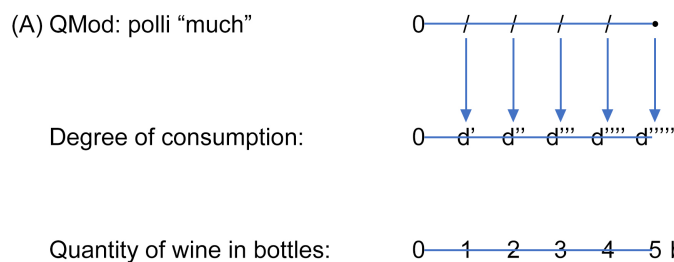
and combines with the noun *analosi* which literary means “spending”; *analosi* is derived from the verb *analono* meaning “to spend, to consume, to use up” (Stavropoulos, 1995: p. 51). Therefore, *I katanalosi tou krasiou* “the consumption of the wine” would already point to the possibility of a change in the quantity of the wine, even before it is consumed as it appears in its whole (quantity).

When *katanalosi* is combined with the QMod *poli*, *poli* operates on *katanalosi* and discloses the degree of *katanalosi* “consumption” as “much” or as “of a great quantity” that is being consumed. The *katanalosis* “consumption” is interpreted in association with its incremental theme which is the mass nominal it combines with, i.e., *krasi* “wine” (cf. Krifka (1992, 1998), Dowty (1991), and Tsouhlaris (2011)).

Greek mass nominal *krasi* “wine” is analyzed as a mereological entity x . We could speculate that *krasi* “wine” is contained in bottles which are seen as the individual units used to measure the wine. Let us assume that each bottle contains 400 grams of wine; then, each bottle is seen as the contribution to the possible consumed amount of wine so that “a great amount of wine is consumed”; for instance, if we have 5 bottles of wine that makes our total quantity 2000 grams of wine, then the total quantity of wine would be 2 kilograms in total.

When we talk about the *polli katanalosi tou krasiou* “the much consumption of wine”, and the amount of wine we have is 2 kilos, then the equivalent amount to *polli katanalosi* could be 1 kilo and 500 grams, more or less. *Poli* is proportional and can never be equivalent to a precise quantity as this is the quality of numbers only.

Our analysis involves proportional sets of degree of *katanalosi* and amount of wine in grams or in bottles of wine in such a way that these proportional sets can be identified in relation to each other, so that each degree of consumption corresponds to a “part” of the wine being consumed. Therefore, the QMod *poli* is exercised on each “part” of the wine consumed. The following diagram explains our thinking that is also in accordance with Tsouhlaris (2011):



What we have described in diagram (A) is the mapping of the quantity described by the QMod on the degree of consumption and the amount of wine being consumed.

Katanalosi is an event nominal mass that allows the homomorphic relation between the parts of the event (i.e., the process of *katanalosis* “consumption”) and the scale of change (i.e., the degree of *katanalosis* “consumption”).

Homomorphism is a transformation of one set into another that preserves in the second set the relations between elements of the first; for this, we believe that QMod *poli* operates over homomorphic sets of degrees and amounts as described above in diagram (A).

QMod *poli* is identified on the scale and operates on “proportional parts” of the mereological sets of *katanalosi* “consumption” and its incremental theme “wine”. Since the amount of wine consumed is not specified with a number of bottles or with kilos, we take the liberty to define the entire amount of 2 kilos of wine as 5 bottles of 400 grs each. In addition, our interpretation of *poli* will be context dependent; therefore, partial or some as “*meriki*” would equal less than 2 bottles, misos “half” will equal 2, 5 bottles of wine, while *oliki* “entire” will equal all 5 bottles. Our QMod in question: *poli*, would equal 4 out of the 5 bottles of wine.

Tsouhlaris (2011: p. 78) formalizes QMods *oliki* “total” and *meriki* “partial”. We will adopt her formalism applied to QMod *meriki* “partial” for QMod *poli* “much”, with a slight alteration to the amount *poli* refers to.

Tsouhlaris (2011) formalizes QMods using the measure of change function as discussed in Kennedy and Levin (2007). QMods can be seen as a measure of change function which takes a mereological object *x* (i.e., noun the QMod combines with) and an event *e* (i.e. the *katastrofi tis polis* “destruction of the city” or, in our present discussion, the *katanalosi tou krasiou* “the consumption of the wine”) and returns the degree—say (80% - 90%) in the case of *poli* “much” but 50% - 80% in case of QMod *meriki* “partial” and 100% in case of QMod *olikos* “total”; these amounts represent the amount that *x* changes in the property measured by *m* (*katastrofi* “destruction” or *katanalosi* “consumption”) as a result of participating in the event *e*.

In order to capture the measure of change of the degree the process of destruction or consumption is exercised on its incremental theme participant “city” or “wine” respectively, we have relayed on Kennedy and Levin’s (2007) formalism of gradable adjectives in sentences like *the table is [wider than the carpet]* (cf. Tsouhlaris, 2011: p. 78). Kennedy and Levin (2007) believe that “the adjectival core of a degree achievement is a special kind of difference function: one that measures the amount that an object changes along a scalar dimension as a result of participating in an event” (Kennedy and Levin, 2007: p. 18). They further explain this with their representation (25) “which defines for any measure function *m* from objects and times to degrees on a scale *S* a new MEASURE OF CHANGE function *m*Δ. (Here *init* and *fin* return the initial and final temporal intervals of an event)” (ibid). Kennedy and Levin’s (2007) representation (25) of the measure of change is given below:

(B) Measure of change

For any measure function *m*, $m\Delta = \lambda x \lambda e. m \uparrow (x) (\text{fin}(e))$

$M(x) (\text{init}(e))$

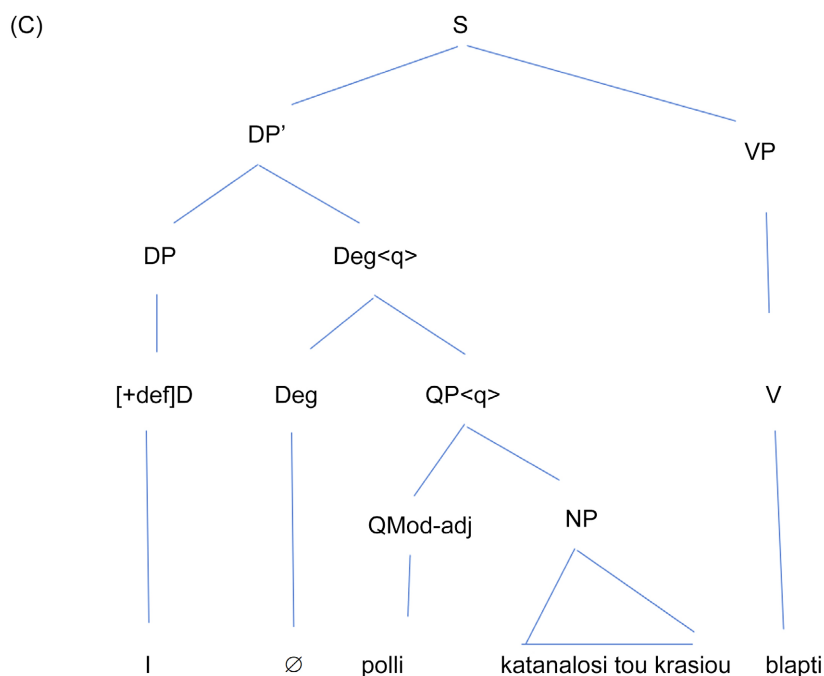
Tsouhlaris explains the thinking behind this formalization, based on Kennedy and Levin (2007): “Kennedy and Levin add that “a measure of change function takes an object x and an event e and returns the degree that represents the amount x changes in the property measured by m as a result of participating in e . It does this by mapping its individual argument x onto a derived scale whose minimal element is the degree to which x measures m at the initiation of e . The output is a degree that represents the positive difference between the degree to which x measures m at the beginning of e and the degree to which it measures m at the end of e ; if there is no positive difference, it returns zero” (Kennedy and Levin, 2007: pp. 18-19)” (Tsouhlaris, 2011: p. 78).

QMods share scalarity properties with gradable adjectives and this is how a measure of change can be used for their semantic analysis. Tsouhlaris (2011) provides the formalization of *olikos* “total” and *merikos* “partial” and it appears that we could rely on the formalization of *merikos* for our formalization of *poli* as in *I polli katanalosi tou krasiou* “the much consumption of wine” as given in Tsouhlaris (2011: p. 79), mentioned below:

$$\text{“(9) b. } m\Delta = \lambda x \lambda e . m.c \uparrow \quad (x) (e' \text{ before mid}(e) \text{ or } e' \text{ before fin}(e))\text{”}$$

$$m(x) (\text{init}(e))$$

The syntactic representation of *I polli katanalosi tou krasiou* “the much consumption of wine” follows Tsouhlaris’ diagram (37) with the QMod *meriki* ‘partial’. The syntactic representation of QMod *poli* is presented below:



Other possible mass nominals combined with QMod *polli*, are *sinhisis* “confusion”, *doulia* “work”, *kourasi* “tiredness”, *fasaria* “noise”, *diadikasia* “procedure” (cf. Tsouhlaris, 2011: pp. 79-80).

According to Tsouhlaris (2011), QMods operate on mereological sets denoted by the event nominal and its incremental theme participant. Tsouhlaris' (2011) explanation follows from Grimshaw (1994) who mentions two classes of event nominals: those that denote complex events since they have an associated event structure and also an argument structure...and those that denote simple events and the result nominals which have no argument structure. Tsouhlaris (2011) and our example (21) reflect's discussion of simple event nominals. Tsouhlaris (2011) states that "(s)uch QMods quantify over mereological sets of mass nouns that denote events in the form of achievements, activities, or states (cf. Downty (1991) and Bach (1981)) or even mass nouns that simply denote "quantity" in the sense of Bach (1986) and are not expected to operate over mereological sets of degree and amount" (Tsouhlaris, 2011: p. 81) as in the similar case of *olikos* "total, whole" and *merikos* "partial" discussed by Tsouhlaris (2011).

4. The Greek *poli* Analyzed as a D-Quantifier

Tsouhlaris (2011) suggests "olos, polis and ligos combine with different type of arguments and appear in both Adj- and D-position. They interpret as QMods as in her examples (5a, b) in 5.2.1 or as GQs (cf. following subsection 5.2.3) analyzed as D-quantifiers; such an analysis reflects our discussion in 2.1.2 about GQs as they appear syntactically in the form of D-quantifiers." (Tsouhlaris, 2011: p. 79).

Taking this as our basis we will extend our semantic analysis of *poli* to a D-quantifier.

In this chapter we will concentrate on Greek πολύς, πολλή, πολύ and their plural form πολλοί, πολλές, πολλά; we will examine this quantificational adjective as it appears in the syntactic position of determiners, that is before the noun it combines with.

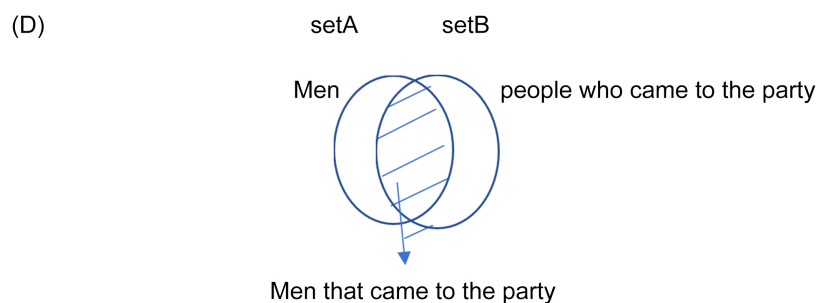
The Greek sentence we deal with is previously mentioned as a default example (29) and is repeated below:

- (29) πολλοί άνδρες ήρθαν στην γιορτή
 Polli andres (Masc. Pl. Nom) irthan stin giorti
 "many men came to the party"

The masculine form of adjective πολύς, πολλή, πολύ, "polis", appears in plural, nominative in this example, and it is part of the nominal. It is placed in the determiner's position or as it is called a D-position as it is the case of its English counterparts *many* and *much*. English *many* usually combines with countable nouns as in *many men* while, English *much* prefers mass nominals like *much sugar*. The Greek *polis* combines with mass noun in its singular form as in *polis kosmos* "much crowd", *polli fasaria* "much noise", *poli klama* "much crying" or with a countable noun in its plural form as in *polloi andres* "many men", *polles ginekes* "many women", *polla paidia* "many children".

Our semantic analysis will follow Barwise and Cooper (1981) and their discussion of Generalized quantifiers (GQ) where NPs like *many men* denote a set of

properties so that *many men came to the party* will denote the set of the people who are men and who came to the party. Barwise and Cooper are of the opinion that “quantifiers correspond to Noun Phrases, not to determiners” (Barwise and Cooper, 1981: p. 162) and in the above sentence *Many men came to the party*, it is the NP *many men* which functions as the quantifier. Therefore, in *Many men came to the party* the quantificational NP *many men* is the set that contains all the sets that contain many men as its members, and *many men came to the party* will be true if there is an intersection of the set *men* and the set of the people who came to the party; the intersection of these two sets will be the new set of ‘*the men who came to the party*’, and it is demonstrated below in (D):



The intersection of the men who came to the party is as large as it needs to be in order to imply that it is a great number of men who came to the party described as “many”. Many is proportional so that if all existing men are 10, then many men came to the party would imply that probably 8 men out of 10 are those that came to the party.

Barwise and Cooper (1981) explain that quantifiers are sets of sets in a given domain E of discourse, maintaining conservativity as the semantic property responsible for defining the sets of sets a quantifier divides; therefore, in *many men came to the party* are people who are men and men who came to the party.

Many men came would be formalized as follows:

- (33) a) Many men came to the party
 b) $\exists x [\text{men}(x) \wedge \text{came}(x) \wedge |\text{men}(x) \cap \text{came}(x)| \geq m]$
 c) $\llbracket \text{Many}(A,B) \rrbracket = 1$ iff $|A \cap B| \geq m/n |A|$ (a proportional reading)

Quantifiers are also described in terms of their monotonicity (cf. Barwise and Cooper, 1981). In this particular case of our discussion, *many men* is monotone increasing. According to Barwise and Cooper a quantifier Q is “monotone increasing (mon \uparrow) if $X \in Q$ and $X \subseteq Y \subseteq E$ implies $Y \in Q$ (i.e., for any set $X \in Q$, Q also contains all the supersets of X.)” (Barwise and Cooper, 1981: p. 184).

Similarly, Greek *polloi* in its masculine, plural form favors a similar semantic interpretation as it finds itself engaged in a similar syntactic construction as we see in (29) mentioned again below:

- (29) πολλοί άνδρες ήρθαν στη γιορτή
 Many men came to the party

πολλοί άνδρες “many men” is the GQ in the sense of Barwise and Cooper (1981) which as its English counterpart denotes families of sets and it is also monotone increasing so that for every pair of sets X and Y, if $X \subseteq Y$, then GQ (X) entails GQ (Y). The GQ πολλοί άνδρες “many men” is the intersection of two sets (A) the people who are men i.e., άνδρες “men” and (B) άνδρες (andres) “men” who came to the party.

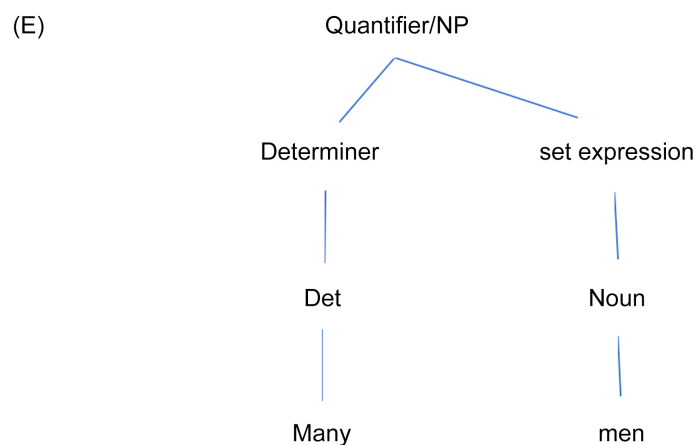
The formalization of Greek GQ polloi will also be derived from the formalization we have mentioned above of English GQ *many men*. This is mentioned below:

- (34) a) πολλοί άνδρες ήρθαν στη γιορτή
 b) polloi andres irthan stin giorti
 c) Many men came to the party
 d) $\exists x [\text{men}(x) \wedge \text{came}(x) \wedge |\text{men}(x) \cap \text{came}(x)| \geq m]$
 e) $\llbracket \text{Many}(A,B) \rrbracket = 1$ iff $|A \cap B| \geq m/n |A|$ (a proportional reading)

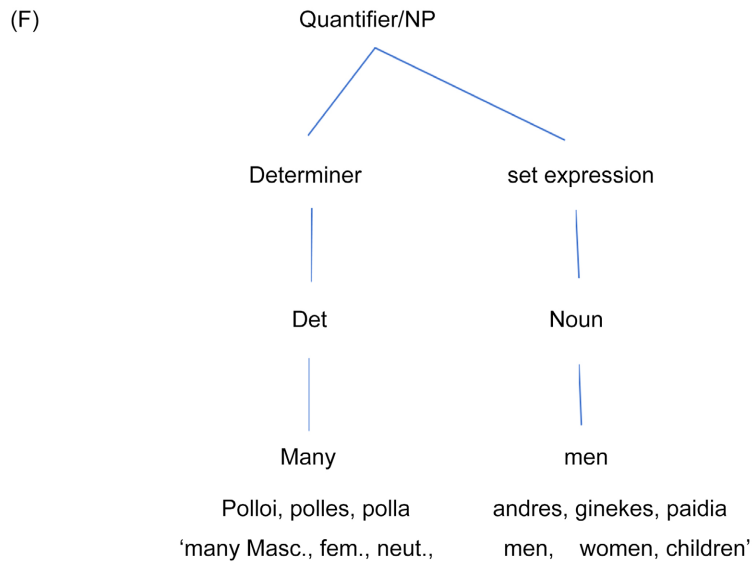
Greek *polloi* has been analyzed as a D-quantifier in the sense of Barwise and Cooper (1981) as it appears in a nominal position of determiner combined with a plural countable noun. We have favored the masculine form of the adjective πολός “many” but similarly we could use the feminine (as in example (35)) or the neuter (as in example (36)) in the following sentences with the same formalization:

- (35) a) πολλές γυναίκες ήρθαν στην γιορτή
 b) polles ginekes irthan stin giorti
 c) Many women came to the party
 d) $\exists x [\text{women}(x) \wedge \text{came}(x) \wedge |\text{women}(x) \cap \text{came}(x)| \geq m]$
 e) $\llbracket \text{Many}(A,B) \rrbracket = 1$ iff $|A \cap B| \geq m/n |A|$ (a proportional reading)
- (36) a) πολλά παιδιά ήρθαν στην γιορτή
 b) polla pedia irthan stin giorti
 c) Many children came to the party
 d) $\exists x [\text{children}(x) \wedge \text{came}(x) \wedge |\text{children}(x) \cap \text{came}(x)| \geq m]$
 e) $\llbracket \text{Many}(A,B) \rrbracket = 1$ iff $|A \cap B| \geq m/n |A|$ (a proportional reading)

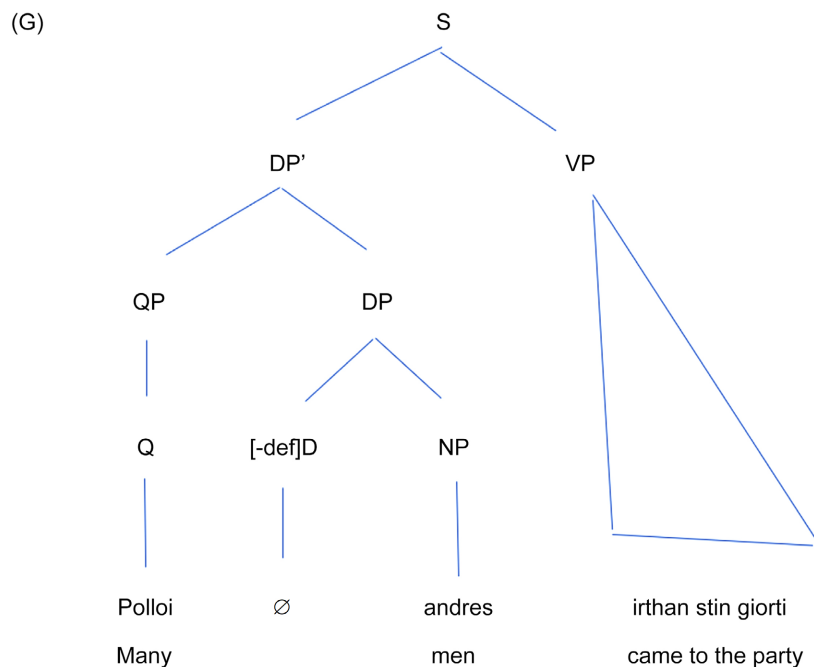
In terms of syntax, the above examples (36a, b, c) could be represented in the following syntactic tree (E):



The syntactic construction Greek *polis* engages in when analyzed as a D-quantifier is the same as its English counterpart *many*. The same syntactic construction, that is the subject position, is also occupied by *poli* in all genders, i.e., masculine, feminine and neuter, and it is demonstrated below:



Since we have followed Barwise and Cooper (1981) in our analysis of Greek *polis* as a D-quantifier, we should mention that in their terms it is the NP that functions as a quantifier and not the Greek *polis* in isolation. Therefore, we could borrow the tree diagram (35) from Tsouhlaris (2011: p. 88) to describe *polis* as a D-quantifier. This description is based on the syntax *polis* is engaged in as found in the determiner’s position in (G) below:



According to the above diagram, *polis*, semantically quantifies over count entities and functions syntactically as a determiner.

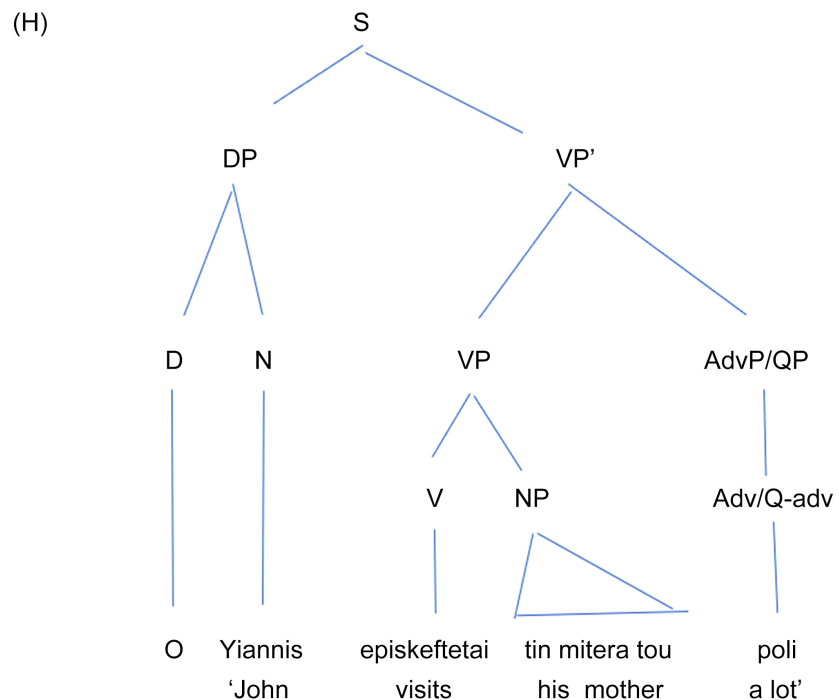
5. Greek *poli* Analyzed as an A-Quantifier

Tsouhlaris explains that *poli* means “considerable, of a large amount, great” and refers to that portion which exists in a big quantity, or to something that happens in a great degree (Tsouhlaris, 2011: p. 75).

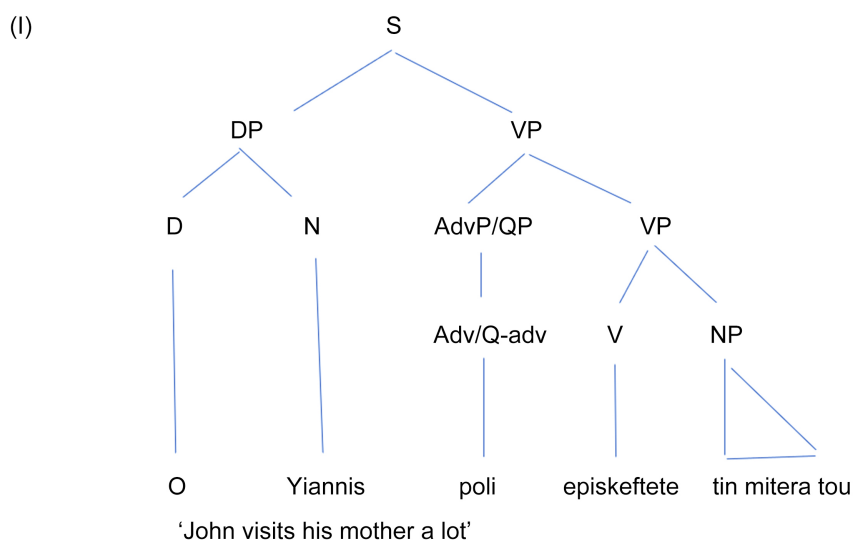
In our journey of analyzing the multiple-faced *πολύς, πολλή, πολύ* “*polis, polli, poli*” we have already analyzed it as a D-quantifier over sets of sets or as a QMod that quantifies over mereological sets. We will continue with our discussion of the quantificational properties of *poli* extended to A-quantification, in the form of an adverbial quantifier. A-quantification involves quantification over events (cf. Lewis (1975)). An adverbial quantifier is a syntactic operator which forms a constituent from some projection of V...and finds its first argument in the verb and its second argument in the whole VP. This seems to be the case of *poli* in our default example (37) *o Yiannis episkeftetai tin mitera tou poli* “John visits his mother a lot”. Our default example could be the Greek translation of this very sentence:

(37) *o Yiannis episkeftete tin mitera tou poli*
 John visits his mother a lot

In this default example, *poli* appears as part of the verbal domain as it is demonstrated in (H):



However, Adverbial *poli* can also appear in pre-verbal position as in (I) below:



The above diagram demonstrates the syntax-semantics interface in which Greek adverbial *poli* syntactically appears in a position common to adverbs, as a head of an Adverbial phrase, while semantically appears as a Q quantifier, head of the Quantifier Phrase QP. This thinking follows Tsouhlaris (2011). In this case, Greek A-quantifier *poli* takes scope over the VP *episkeftete tin mitera tou* “visits his mother”.

An Adverbial quantifier functions as an operator that can appear in various positions: “in the VP of the main clause, in sentence-initial position, or in the VP of the subordinate clause” (De Swart, 1993: p. 208). In our analysis, we will consider English adverbial *a lot* as the English counterpart of Greek adverbial *poli*.

Poli as an adverb with quantificational properties means “a lot, a great deal, much, greatly”.

A-quantifiers in the form of adverbials are operators that find their first argument in the Verb and the second one in the whole VP (cf. De Swart, 1993).

Semantically, *poli* in sentences like *O Yiannis episkeftete tin mitera tou poli* or *O Yiannis poli episkeftete tin mitera tou*, the A-quantifier *poli* finds its first argument in the verb, and the second argument in the entire VP. The verb “modified by an adverbial, specifying a quality of the event or the way in which the action is performed” (De Swart, 1993: p. 172). The verb being the second argument of the A-quantifier allows quantification over events; therefore, in our example *O Yiannis episkeftete tin mitera tou poli*, *poli* is the quantifier, its restriction is the verb *visits* and it will take scope over the event *e* of John visiting his mother, or over the times John visits his mother. The event *e* of John visiting his mother will be made out of all those subevents of those individual times that John visits his mother; these times accumulate in such a way that can be described as many so that John visits his mother a lot or its Greek counterpart: *O Yiannis episkeftete tin mitera tou poli*.

If *poli* is to function as an Adverbial quantifier over events then, in the sentence *o Yiannis episkeftete tin mitera tou poli*, *poli* would quantify over the visits of

Yiannis and *episkeftete*, the verb, would denote sets of events. These sets of events would be the different times John visited his mother and since *poli* is proportional then we would not be able to identify the exact number of John's visits to his mother but we might say that if the total possible visits to his mother are 5 then John visited his mother a lot would interpret as John visits his mother 4 out of 5 possible visits. The verb *visit* denotes an activity as an event.

We could formalize A-quantifier *poli* as follows:

$$\exists e(Vx, y) \& \text{for}(e, Vx, y) e > n$$

where $n = 4/5$.

We mentioned that *poli* is an A-quantifier over a set of subevents so that, if we are to consider the 4 out of 5 visits John paid to his mother then we might say that e' is before e'' ; e'' is before e''' and e''' is before e'''' .

Therefore, we might say that if x is John and y is John's mother, then x visits y and the event of visit e takes place many times so that, the main event visit is an accumulation of many subevents e' so that the sentence *O Yiannis episkeftete tin mitera tou poli* "John visits his mother a lot" is true.

In a sentence like *O Yiannis episkeftete tin mitera tou poli* "John visits his mother a lot", *poli* "a lot" would be the quantifier, its restrictions would be the verb *episkeftetai* "visits" and it will take scope over the event e of *John visiting his mother*, or over the times *John visits his mother*.

6. Greek *polis* as QMod, D-Quantifier and A-Quantifier and Their English Counterparts

We have followed Solt (2009) and Tsouhlaris (2011) in defining the Greek quantifier *poli* and its English counterparts *much*, *many*, *a lot* in specific syntactic environments that allow *poli* to be interpreted as a QMod, as a D-quantifier or as a A-quantifier.

According to Matthews (2014) a quantifier is "1. any word or expression which gives a relative or indefinite indication of quantity, e.g., *many* in *many children* or *few* in *few children* who came: distinguished as such from a *numeral, which gives a precise and absolute indication of quantity, e.g., in *the three children* who came. Applied by Quirk et al., *CGE, specifically to elements, such as *many* or *few*, that, with numerals, have the position in a noun phrase of a *postdeterminer. 2. An operator in logic such as the *existential quantifier (\exists) and the *universal quantifier (\forall). Thence, in linguistics, a class of *determiners such as *some*, *no*, *all*, or *most*, characterized by ones whose meaning can be represented by expressions containing such an operator. e.g., that of *all* in *All birds fly* can be shown by the universal quantifier in an expression ($\forall x$) ($\text{bird}(x) \rightarrow \text{fly}(x)$) "For all x , if x is a bird, then x flies"; that of *no* in *No snakes fly* with the existential quantifier in $\sim(\exists x)$ ($\text{snake}(x) \& \text{fly}(x)$) "There exists no x , such that x is a snake and x flies." (Matthews, 2014: p. 330).

While a generalized quantifier is "(L)ogicians" term for an expression interpreted as representing a set of subsets. Adapted, in *formal semantics, to represent

the meaning of noun phrases: e.g., *some people*, denotes the set of all subsets of individuals whose members are a subset of people; likewise, e.g. *John* denotes the set of all subsets whose member is *John*. A sentence such as *Some people like formal semantics* is true if, in a given situation, a property denoted by the predicate (that of liking formal semantics) holds of, in this case, some people. If noun phrases denote generalized quantifiers, a generalized quantifier can accordingly be represented as a function from a property (such as liking formal semantics) to a truth value (true or false in given circumstances).” (Matthews, 2014: p. 156).

This slight diversion was to shed light in what we mean when we talk about quantifiers and what is their semantic function in a sentence. We will consider Matthews (2014) when we offer our summary of the quantificational profile of Greek *poli* “much, many, a lot of” and we will realize that Matthews’ (2014) description of quantifiers fit Greek *poli* as it appears in 3 different syntactic structures.

We have so far analyzed Greek *poli* as a QMod following Tsouhlaris (2011), as a D-quantifier following Barwise and Cooper (1981) and as an A(dverbial)-quantifier following Lewis (1975). The same analyses are given to its English counterparts.

QMod *πολύς, πολλή, πολύ* “much, of great quantity” was first analyzed as a quantifier over mereological sets of degrees and amounts as it appeared in the sentence *I polli katanalosi tou krasiou blapti* “the great (much) consumption of wine is harmful”. QMod *poli* quantifies over proportional sets of degree of *katanalosi* “consumption” and amount of *krasi* “wine”. Let us consider that wine is kept in bottles of 400 gr each; these proportional sets were identified in relation to each other, so that each degree of consumption corresponded to a “part” of wine or so many bottles of wine, being consumed. *Polli* as a proportional QMod operates over these mereological sets, so that the great (much) consumption of wine could correspond to a great number of wine bottles. For instance, if all our wine bottles are 10 in total, we might say that the consumption of 8 wine bottles corresponds to a *polli katanalosi tou krasiou* “the great (much) consumption of wine”.

Similarly, *πολύς, πολλή, πολύ*, when appears in specific syntactic environments that allow its translation into “many, much”, favors an analysis as a D-quantifier in the sense of Barwise and Cooper (1981). We considered the default example *Polli andres irthan stin giorti* “Many men came to the party”, which welcomes a similar analysis to that of its English counterpart *many* as in *Many men came to the party*.

Normally English *many* is analyzed as a quantifier based on the Generalized Quantifier Theory of Barwise and Cooper (1981) seen as “a quantifying determiner” that expresses relationship between two sets (type $\langle et, \langle et, t \rangle \rangle$) as explained by Sojda (2019):

$[\text{many } \langle et, \langle et, t \rangle \rangle] = \lambda P \lambda Q. |P \cap Q| > n$, where n is some large number

Therefore, a sentence like *Many students attended the lectures* would be formalized as follows: $\exists x [\text{student}(x) \wedge |x| > n \wedge \text{attended the lecture}(x)]$.

This is identical to the way we can analyze the Greek counterpart of *many*: πολύς, πολλή, πολύ “many”, as we see in the following example:

- (38) Πολλοί μαθητές παρακολούθησαν τις διαλέξεις
 Polloi mathites parakolouthisan tis dialeksis
 “Many students attended the lectures”

Which would be formalized as $\exists x$ [fititis “*student” (x) \wedge |x| > n \wedge parakolouthise tis dialeksis “attended the lecture” (x)]. The formal analysis of the above sentence could also be followed for the Greek sentence *polloi andres irthan stin giorti* and its English translation *Many men came to the party*.

Solt (2009) builds the portrait of *many* and *much* and views them as degree predicates as “they denote gradable predicates of intervals (sets of degrees) on the scale of some dimension of measurement, allowing them to occur in a wide range of contexts in which scales and degrees are present” (Solt, 2009: p. 5). Solt analyzes Q-adj as degree predicates or gradable predicates of scalar intervals and states that “Q-adjectives are gradable, in that they describe degrees of some property there can be more or less of” (Solt, 2009: p. 12).

Barwise and Cooper (1981) sees them as quantifying determiners, but they also note that “these words fail to fit neatly into the categories in which other determiners can be classified” (Solt, 2009: p. 7).

Solt goes on to present the etymological analysis of English *many* and *much*; *many* “derives from the Old English manig, and still maintains the Germanic adjectival ending -y (from the older -ig) found in words like thirsty, mighty, windy and many more” ... “Much likewise has adjectival origins, having come to Modern English from Old English micel ‘great’” (Solt, 2009: p. 11).

Πολύς, πολλή, πολύ “much, many”, the Greek counterpart of *much* and *many*, is also an adjective. Babinotis (2002) describes the Greek πολύς, πολλή, πολύ as an adjective that refers to “αυτος που υπάρχει σε μεγάλη ποσότητα” Babinotis (2002: p. 1448), which means the one which exists in a great quantity. *Poli* as a D-quantifier bares similarities with its English counterpart at a syntactic and semantic level and follows a similar semantic analysis based on Barwise and Cooper (1981).

In addition, Modern Greek πολύς, πολλή, πολύ has also been analyzed as an existential quantifier over entities and events, which relates to English *many* and *much/a lot*. Besides being a D-quantifier, we have also analyzed Greek *poli* as an A(dverbial)-quantifier over events, following Lewis (1975). Πολύς appears to be an existential quantifier over entities and events according to the syntactic environment it is placed in. Note examples like:

- (39) pino **poli** kراسi
 I drink a lot of wine

In example (39) *poli* quantifies over *kراسi*, that is the amount of wine I drink

- (40) pino kراسi **poli**
 I drink wine a lot

While in this example (40) *poli* quantifies over the event *e* of drinking as happening a lot or many times.

Holton et al. (2006) state that this quantifier “may be used with or without a noun (that) inflect like adjectives, and agree in gender, number and case with the relevant noun or with the item which they denote:

(41) irthe **polis** kosmos

Many people came

(42) irthan **polles** fititries

Many women (students) came

Poli has also been analyzed as an A (dverbial) quantifier over events as discussed in chapter 3, since it is able to exist in similar syntactic environment to that of English A-quantifier *much*.

By the above discussion, we have managed to summarize the possibilities of Greek *poli* appearing in different sentences with 3 different semantic interpretations that allow it to be portrayed as a QMod, a D-Q and an A-Q.

7. Poli as a Degree Intensifier

Matthews (2014) clarifies the difference between a modifier and an intensifier and states that a modifier is “an element in a syntactic construction which is not required by the one that it relates to. Thus, a noun does not in general have to be qualified by an adjective; in the construction, therefore, of *heavy boxes*, the function of *heavy* is a modifier of *boxes*. An intensifier *very*, as in *very heavy boxes*, would in turn modify *heavy*.” (Matthews, 2014: p. 248). On the other hand, an intensifier is “(A) word or other unit used to emphasize or amplify the meaning of another, or of a larger unit of which it is part. E.g., *very* in a *very big house* is an intensifier, or has an intensifying function, in relation to *big*, ...” (Matthews, 2014: p. 195).

Let us, now, see how Greek *poli* functions as an intensifier that is placed before adjectives or adverbs which is actually the desired position intensifiers claim.

Holton et al. (2006: p. 316) mentions that the neuter singular forms of quantifier *πολύς* “many, much, of great quantity, a lot” “may also function as adverbs: *πολύ* ‘very, much’ (comparative *περισσότερο* ‘more’)” (Holton et al., 2006: p. 339) as in the example *ena poli kalo kommati* “a very good piece” where *poli* “very” is placed before the adjective *kalo* “good” which it intensifies. This takes our discussion to a completely different domain, that of intensifiers.

Babiniotis (2002: p. 1443) mentions *πολύ* as an “επιρρημα χρήσης (ήδη αρχ.) του ουδέτερου *πολύ* του αρχ. Επιθ. *πολύς*”, which means that *πολύ* “*poli*” as an adverb is the neuter of the ancient Greek adjective *πολύς*, *πολλή*, *πολύ* “*polis*, *polli*, *poli*” meaning “many, much, a lot” but also “very”.

Joseph and Philippaki-Warburton (1987) state that in Greek “(T)he concept of ‘X in large measure’, i.e. ‘very X’, is usually expressed periphrastically through the use of the neuter adjective *poli* ‘much’ before the adjective, e.g. *poli omorfa* ‘very

beautiful” (Joseph and Philippaki-Warburton, 1987: p. 211). In addition, *poli* could be found before an adverb fulfilling the same semantic function, as in *poli omorfa* “very beautifully”. Note that Greek *omorfa* can function as an adjective and as an adverb bearing the meaning “beautiful” and “beautifully” like the English adjective/adverb *fast*.

Joseph and Philippaki-Warburton (1987) classify *poli* among the expressions used to express degree of quality. On the other hand, Holton et al. (2006) mention that “(A)n adverb of quantity modifying an adjective, conveys the degree of the quality denoted by the adjective” (Holton et al., 2006: p. 359). Holton et al. (2006) use their examples “(3a) *poli kalos* ‘very good; too good’ and (3c) *poli kaliteros* ‘much better’” (ibid) to show the syntactic constructions Greek intensifier *poli* engages in. Holton et al. also make reference to the function of Greek *poli* as an intensifier “An adverb may modify an adverb (esp. an adverb of manner) in much the same way as it may modify an adjective” (Holton et al., 2006: p. 360) as demonstrated in their examples mentioned below:

- “(6) a) πολύ καλά
poli kala
 Very well
 d) **poli** kalitera
 much better” (ibid)

In addition, πολύ “may be used with adverbs of place and time which have a relative sense” (Holton et al., 2006: p. 361).

- “(9) a) *poli pano/kato*
 Very far up/down
 e) *poli voris/arga*
 very early/late” (ibid).

Tsouhlaris mentions how it is possible that “degree modifiers... modify modifiers (e.g., *very* in ‘the very tall man’)” (Tsouhlaris, 2011: p. 59). On the same subject we quote Parsons (1980) who suggests that adjectives and adverbs stand for functions that map properties to properties. For instance, the adjective *brown* in *Fido is a brown dog* “stands for a function which maps the property of being a dog to the property of being a brown dog” (Parsons, 1980: p. 37). Similarly, adjective *tall* in *the tall man* stands for a function which maps the property of being a man to being a tall man and the adverb *poli* maps the property of being a “tall man” to the property of being a very tall man. Parsons (1980) mentions that when it comes to adverbs such as *slowly* in *Carlos runs slowly* “stands for a function which maps the property of running to the property of running slowly” (ibid). This is precisely how English *very* works semantically in a sentence like “the very tall man” and its Greek counterpart “o poli psilos andras”. Note that both sentences in Greek and English follow an identical syntax that allows the definite article to combine with the NP “tall man” which also contains the intensifier *very* preceding the adjective *tall*.

Greek *poli* is able to intensify both adjectives and adverbs as described in Parsons (1980).

Notice the following examples:

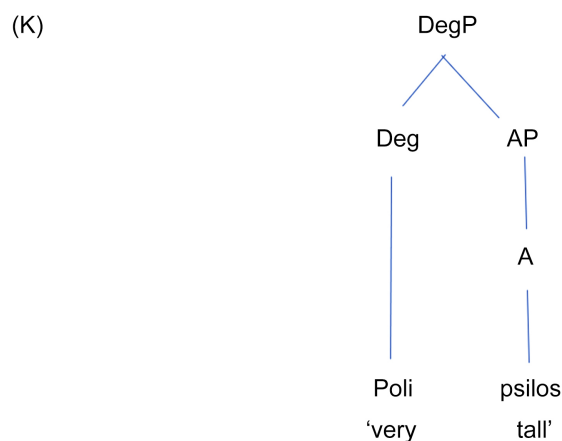
- (43) *inai poli omorfi kopela*
She is a very beautiful girl

In (43) above, *poli* is an intensifier in relation to Greek adjective *omorfi* “beautiful”, while in (44) below, *poli* is an intensifier in relation to Greek adverb *grigora* “fast”:

- (44) *badizei poli grigora*
He walks very fast

Sojda (2019) states that “(T)he term intensifier has been used in various ways in linguistic studies. The most common definitions identify intensifiers with adverbs (belonging to the subcategory of adverbs of manner; intensifiers are also called adverbs of degree, intensive adverbs, degree modifiers, or degree words and are forms that add “a degree measure onto its referent” (Sojda, 2019: p. 57). Sojda explains how the status of a word changes at the sentence level and the way an adverb combines with an adjective allows alterations in the meaning of the adjective; the way we personally perceive this is by the difference in meaning, let us say, between *big* and *very big*, in which the intensifier *very* alters the meaning of adjective *big*.

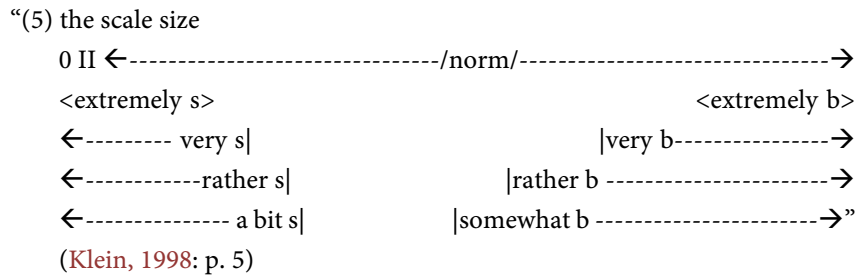
In our attempt to give the syntactic representation of Greek intensifier *poli* we will follow the syntactic representation of English *very* as presented in Tsouhlaris (2011). It is mentioned below in (K):



Very tall like its Greek counterpart is a gradable adjective following Kennedy (1999) who states that “(S)emantically, gradable adjectives can be informally defined as predicative expressions whose domains can be partially ordered according to some property that permits grading” (Kennedy, 1999: p. xiii). This gradability that is found in degree modifiers also allows them to combine with intensifiers like *very* which is not the case with other non-gradable adjectives like *dead*,

previous or *square*. We need to remind ourselves that English *very* is the counterpart of Greek *poli* which is the focus of this discussion. Any analysis that fits English *very* will also fit Greek *poli* since they both exist in similar syntactic environments.

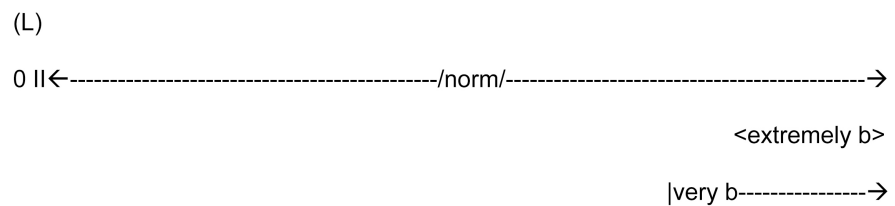
The scale size of English “very” is given by Klein (1998) as follows:



The semantics of Greek adverbial *poli* is similar to its English counterpart *very* as shown in our examples below:

- (45) Inai **poli** omorfi
She is very beautiful (very + adjective)
- (46) Perpatai **poli** grigora
He’s walking very fast (very + adverb)

Our first example, in the scale of beauty as *inai poli omorfi* “she is very beautiful” is based on Klein (1998) and would be described as in (L) below:



If we have a scale of beauty, the middle of the scale would describe the average looks, while anything above average would be considered beautiful; anything above beautiful would be described as *very beautiful* while anything more than *very beautiful* would be described as *extremely beautiful*. Note that b in our representation (K) stands for *beautiful*.

We analyze *very* as adverb of degree which is classified according to Klein (1998) as “IV class, high in degree” (Klein, 1998: p. 20). IV The high degree “shifts the lower bound of the range of the predicate to a higher place on the scale: very nice denotes a higher degree of niceness than just nice (41) [he is nice, in fact very nice]. It can be suspended itself for the extremely high degree as shown in (40)” (Klein, 1998: p. 21) [She is very careful, if not extremely careful; She is very rich, in fact unbelievably rich].

If we consider example (43) *ine poli omorfi kopella* “She is a very beautiful girl”, the intensifier *poli* “very” could be formalized as a function that takes a proposition like *ine omorfi kopella* “she is a beautiful girl” as its argument and returns a

new proposition *-ine poli omorfi kopella* “she is a very beautiful girl”—that allows a higher degree of beauty, which is the property expressed by the original proposition. Under these semantic circumstances, *poli* “very” can be formalized as $\forall(x) (P(x) \rightarrow Q(x))$, where $Q(x)$ means that “x has the property P to a very high degree”. Similarly, $P(x)$ means that “x has the property P”, -P being the property of “being beautiful”.

8. Grammaticalization of Adverbs of Degree According to Klein (1998)

Klein (1998) describes the process of grammaticalization as thought to be “unidirectional, moving from a concrete lexical meaning to a more abstract and generalized one that can be used in more and more contexts.” (Klein, 1998: p. 28).

Grammaticalization is “the gradual development of a lexical element beyond its original lexical meaning towards a grammatical function” (Klein, 1998: p. 27). The use of adverbs of degree “is clearly variable over time... In the process of becoming grammaticalized as an adverb of degree, the adverb becomes less and less restricted; on the other hand, as an adverb of degree it may acquire a more specific function that restricts its applicability.” (Klein, 1998: p. 25).

Klein continues about grammaticalized adverbs of degree, “such as *very* in *he works very accurately*, are generally considered function words, since they relate a quality to the corresponding scale. In contrast to other categories of function words, however, the group of adverbs of degree is not closed, but it is developing continuously” (Klein, 1998: pp. 27-28).

Our focus is English intensifier *very* examined as an adverb of degree and its Greek counterpart *poli* “very”.

Klein (1998) talks about English grammaticalized *very* which “developed from Old French *v(e)rai* ‘true’, and in Middle English it meant real, genuine. But in the fourteenth century the adjective *very* was also used in meanings close to those of sentence adverbs, either in the meaning of *even*, a form of use that is still found in Modern English in *his very life was at stake*, or in a merely emphasizing function, as in this is *the very man I want*. So gradually, the adjective *very* has lost its lexical meaning and has become a function word, in Stoffel’s words, it became ‘empty’. In its use as adverb, *very* originally expressed the absoluteness of a quality, it meant exactly, and as adverb of degree (already from the fifteenth century onward, according to Borst) quite or absolutely, a meaning that is preserved in its use before superlatives: *the very best*. Soon, this absolute sense weakened, and ever since the middle of the sixteenth century the adverb *very* was used predominantly to express just a high degree.” (Klein, 1998: pp. 29-30).

Klein states that quantity and degree can both be considered to express “extent”. He adds that different languages have different restrictions as to which expressions of quantity may be used to fulfil a grading function, and these restrictions may vary over time. For some languages, such as Portuguese, Modern Greek, and Swedish, the simple expressions of high and low quantity are also the most

commonly used ones to intensify and detensify gradable expressions.” (Klein, 1998: p. 31). Dutch adverbs of degree originally denote a quantity; for instance, the Dutch adverb *heel* “whole” has different meanings; it may be used as a quantifier meaning “whole” or as a modifier meaning “intact”. Klein explains that “(T)he adverb *heel*, ... was also used to strengthen negation” (Klein, 1998: p. 38). It was originally used as a completive, but already in the 17th century its use shifted to that of an adverb of high degree and it modifies gradable adjectives.

Klein states that “Dutch *heel* has different interpretations as adjective, but the adverb is grammaticalized as expressing a high degree only” (Klein, 1998: p. 61). This seems to be the case of Greek *poli* too which is used as an adverb of degree in sentences like *inai poli omorfi* “she is very beautiful” or *odigi poli grigora* “he drives very fast”; like English *very*, Greek *poli* is also used to strengthen negation as in *efage poli ligo* “he ate very little”, etc.

The difference between Dutch *heel* and Greek *poli* is that *poli* does not express an absolute degree like Dutch *heel* but a high degree of what its preceding noun denotes.

Our focus is the Modern Greek *poli* which we believe it can also be a case of grammaticalization being derived from the neuter of the Greek adjective *polis*, *polli*, *poli* “much, many, a lot, very”.

Babinotis (2002: p. 1443) also testifies in this as he mentions: πολύ as an “επιρρημα χρήσης (ήδη αρχ.) του ουδέτερου πολύ του αρχ. Επιθ. πολύς”, which means that *poli* as an adverb is the neuter of the ancient Greek adjective *polis* “many, much, a lot”.

Based on Klein (1998) we can examine the syntactic constructions *poli* is found in:

a) It is used to intensify gradable expressions as in *inai poli omorfi kopela* or *badizei poli grigora*.

b) it can be used as a quantifier as in our examples discussed in Chapter 2, following the example *I polli katanalosi tou krasiou* which declares *poli* as a QMod following Tsouhlaris (2011); or as described in Chapter 2: a D-quantifier in the sense of Barwise and Cooper (1981), an analysis based on our example *polli andres irthan* “many men came”. It is also described in Chapter 4 as an A(verbal)-quantifier following examples like *o Yiannis episkeftetai tin mitera tou poli* “Gianni visits his mother a lot”.

c) *poli* is also used to strengthen negation as described as in *poli heirotera* “much worse”.

d) because of its meaning it does not act as a completive like Dutch *heel* but it does add intensity when used as a prefix in words like *poli-tragoudismenos*, *poli-agapimenos*, *poli-asholos*, *poli-hrisimopimenos* and *poli-katastrementos*.

Klein (1998) mentions that “Dutch *heel* has different interpretations as adjective, but the adverb is grammaticalized as expressing a high degree only” (Klein, 1998: p. 61) and this is the case with Greek *poli*; the singular of Greek adjective *polis* can be translated into “much, a lot, lots, a good/great deal, a large quantity,

plenty, many” (cf. Stavropoulos, 1995: p. 724); the masculine plural form of Greek adjective *polloi* means “several, many” (cf. Stavropoulos, 1995: p. 722) while the intensifier *poli* means mainly “very”. Therefore, we believe that Greek *poli* like English *very* is a case of grammaticalization, deriving from Ancient Greek πούλως, πούλλη, πούλυ “poulis, poulli, pouli” according to Stamatakos (1999: p. 813).

9. Conclusion

In our discussion of Modern Greek πούλως, πούλλη, πούλυ “polis, polli, poli”, we were able to define a polysemous semantic profile that allows this Greek adjective to function as a Quantificational Modifier (see chapter 2), a D-quantifier (see chapter 3) and an A-quantifier (see chapter 4). In addition, in specific syntactic environments πούλως, πούλλη, πούλυ “polis, polli, poli” is found to also act as a modificational intensifier as described in chapter 6.

Poli is under the influence of grammaticalization which allows it to appear in very different syntactic constructions that allow it to function not only as a D- and A-quantifier-following Barwise and Cooper (1981) and Lewis (1975) respectively—but also a Q-Mod-following research done by Tsouhlaris (2011)—and a degree intensifier following the analysis of Parsons (1980), Sojda (2019) and Klein (1998).

In the Introduction we also mentioned that the neuter of this adjectives appears as a prefix, part of a compound like *poli-asholos* “multi-tasked” or *poli-divasmenos* “well read”. It is a fact that:

Greek πούλως, πούλλη, πούλυ appears in distinct, morpho-syntactic environments that allow it to claim various semantic interpretations. Further research is encouraged in its appearance in compounds as a prefix in order to shed more light into its polysemous nature. We believe that *poli* as a prefix can also receive the same analysis as a quantifier and intensifier depending on the semantics of the root it combines with.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

- Alexiadou, A. (2003). Adjective Syntax and (the Absence of) Noun Raising in the D P. In *Proceedings of the Workshop on Head Movement. UCLA 2003* (pp. 1-39). https://www.researchgate.net/publication/252016227_Adjective_Syntax_and_the_absence_of_noun_raising_in_the_DP1
- Babinotiotis, G. (2002). *Leksiko tis Neas Ellinikis Glossas*. Kendro Lexikologias.
- Bach, E. (1981). On Time, Tense, and Aspect: An Essay in English Metaphysics. In P. Cole (Ed.), *Radical Pragmatics* (pp. 63-81). Academic Press.
- Bach, E. (1986). The Algebra of Events. *Linguistics and Philosophy*, 9, 5-16. <https://doi.org/10.1007/BF00627432>
- Barwise, J., & Cooper, R. (1981). Generalized Quantifiers and Natural Language. *Linguistics and Philosophy*, 4, 159-219. <https://doi.org/10.1007/BF00350139>

- Cruse, A. (2006). *A Glossary of Semantics and Pragmatics*. Edinburgh University Press Ltd. <https://doi.org/10.1515/9780748626892>
- De Swart, H. (1993). *Adverbs of Quantification: A Generalized Quantifier Approach*. Garland Publishing, Inc.
- Dowty, D. (1991). Thematic Proto-Roles and Argument Selection. *Language*, 67, 547-619. <https://doi.org/10.1353/lan.1991.0021>
- Grimshaw, J. B. (1994). *Argument Structure*. MIT Press.
- Holton, D., Mackridge, P., & Philippaki-Warbuton, I. (2006). *Greek: A Comprehensive Grammar of the Modern Language*. Routledge.
- Joseph, B. D., & Philippaki-Warbuton, I. (1987). *Modern Greek*. Croom Helm.
- Kennedy, C. (1999). *Projecting the Adjective: The Syntax and Semantics of Gradability and Comparison (1997 UCSC Ph.D. Thesis)*. Garland.
- Kennedy, C., & Levin, B. (2007). Measure of Change: The Adjectival Core of Degree Achievements. In M. Louise, & K. Christopher (Eds.), *Adjectives and Adverbs: Syntax, Semantics, and Discourse* (pp. 156-182). Oxford University Press. <https://doi.org/10.1093/oso/9780199211616.003.0007>
- Kennedy, C., & McNally, L. (2005). Scale Structure, Degree Modification and the Semantics of Gradable Predicates. *Language: Journal of the Linguistic Society of America*, 81, 345-381. <https://doi.org/10.1353/lan.2005.0071>
- Klein, H. (1998). *Adverbs of Degree in Dutch and Related Languages*. John Benjamins Publishing Company.
- Krifka, M. (1992). *Informationsstruktur und Grammatik* (pp. 17-53). LINGB. https://doi.org/10.1007/978-3-663-12176-3_2
- Krifka, M. (1998). The Origins of Telicity. In S. Rothstein (Ed.), *Events and Grammar (Studies in Linguistics and Philosophy, Volume 70)* (pp. 197-235). Kluwer Academic Publishers. https://doi.org/10.1007/978-94-011-3969-4_9
- Lewis, D. (1975). Adverbs of Quantification. In P. Portner, & B. H. Partee (Eds.), *Formal Semantics: The Essential Readings 2002* (pp. 178-188). Blackwell. <https://doi.org/10.1002/9780470758335.ch7>
- Matthews, P. H. (2014). *Oxford Concise Dictionary of Linguistics*. Oxford University Press.
- Parsons, T. (1980). Modifiers and Quantifiers in Natural Language. *Canadian Journal of Philosophy Supplementary*, 6, 29-60. <https://doi.org/10.1080/00455091.1980.10715756>
- Ravin, Y., & Leacock, C. (2000). *Polysemy: Theoretical and Computational Approaches*. Oxford University Press. <https://doi.org/10.1093/oso/9780198238423.001.0001>
- Sojda, S. (2019). Adverbial Intensifiers in Contemporary Polish and Slovak. *Jazykovedný Časopis (Journal of Linguistics)*, 70, 55-72. <https://doi.org/10.2478/jazcas-2019-0040>
- Solt, S. (2009). *The Semantics of Adjectives of Quantity*. The City University of New York Dissertation, UMI.
- Stafilidis, A. (2000). *Hyper Lexicon (English-Greek/Greek-English)*. D. Stafilidis.
- Stamatakos, I. (1999). *Lexikon Arhaias Ellinikis Glossis*. I. Sidirogagis & Sia.
- Stavropoulos, D. N. (1995). *Oxford Greek-English Learner's Dictionary*. Oxford University Press.
- Tsouhlaris, Z. H. (2011). *Quantificational Modification: The Semantics of Totality and Proportionality*. Dissertation.com: Boca Raton.