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# Degree modification and manner adverbs: Greek: *poli* ‘very’ vs. *kala* ‘well’

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## Abstract

In this study, we discuss the distribution of the degree modifier *poli* ‘very’ and the degree readings of the manner adverb *kala* ‘well’ in order to provide cross-linguistic support for the generality of the Kennedy & Mc Nally (2005) typology of scale structure of gradable predicates. We show that *poli* ‘very’ distributes with open scale predicates. We also show that the degree readings of *kala* ‘well’ arise when *kala* combines with incremental predicates, while the manner-quality only reading is produced when *kala* combines with classic telic verbs.

**Keywords:** degree modifier, intensification, scalar predicate, incremental predicate, telic predicate

## 1. Introduction

The Greek language has a system of degrees and employs various means for expressing degree modification. This might include: intonation, prefixes (*poli-* ‘poly-’, *pan-* ‘pan-’, *olo-* ‘olo-’, *kata-*, *theo* ‘god-’, *para-* ‘over-’) (Αναστασιάδη-Συμεωνίδη 2008; Gavriilidou 2013), collocations (*vaθia θlipsi* ‘deep sorrow’, *avastaxtos kaimos* ‘unbearable sadness’) (Gavriilidou 2013) and degree adverbs as in (1):

- (1) O Janis ine poli psilos  
‘John is very tall’

Here the degree adverb applies to a gradable adjective and raises the degree to which the adjectival dimension holds of its subject. Kennedy & Mc Nally (2002) suggest that degree modification is often expressed by the use of expressions which are demonstrably manner adverbs. Such uses are illustrated below in (2) and (3) with the manner adverb *kala*:

- (2) O dimosioyrafos ine kala enimeromenos  
‘The journalist is well informed’

- (3) O ipouryos ine kala eksikiomenos me themata iyias  
 ‘The minister is well acquainted with health issues’

In this corpus-based study, we address the contrasts in the distribution of the degree modifier *poli* ‘very’ and the degree readings of the manner adverb *kala* ‘well’ in order to provide supplementary cross-linguistic data about the generality of the Kennedy & Mc Nally (2005) typology of scale structure of gradable predicates. We take their distinct distribution to reveal distinct constraints they are subject to. *Poli* ‘very’ has received attention in the literature, and we argue that it functions as an intensifier, locating an entity above an established norm on the relevant scale, as for example in (1) above. This sentence says that Janis exceeds the threshold (“norm”) of tallness by far. *Kala* ‘well’, on the other hand, has not received much attention, so the data we present here are novel. We show that *kala* receives ‘manner’ readings ‘in a good way,’ while also having a degree intensifying reading (largely unexplored in the relevant literature; see examples 2 and 3).

Our corpus data show the distributions of *poli* ‘very’ and *kala* ‘well’ to be complementary. Following Kennedy and Mc Nally (2005), we suggest that the application of *poli/kala* is sensitive to the following three parameters: (a) the nature of scale (open or close) associated with a gradable predicate; (b) the nature of the standard of comparison which may be absolute or relative; (c) the morphological type of the scalar predicate. *Poli* is prototypically selected by adjectival predicates (*poli iremos* ‘very calm’; \**kala iremos* ‘\*well calm’) or participles of psych-verbs (*poli fovismenos* ‘very frightened’; \**kala fovismenos* ‘\*well frightened’) (parameter c) associated with open scales (parameter a) with a relative (context dependent) standard of comparison (parameter b). In some marginal cases it modifies participles designating lower closed scales with a minimum standard (4):

- (4) mia poli sizitimeni tainia  
 ‘a much discussed movie’

In (4) *poli* demonstrates a function similar to English ‘much’. Notably, an important number of examples have a morphologically constructed pair where *poli-* ‘poly-’ or *xilio-* ‘one thousand-’ appear as prefixes: *polisizitimenos* ‘much discussed’, *xilioforemenos* ‘lit. one thousand times worn, much worn’, *polixrisimopoimenos* ‘much used’, *xiliopenemenos* ‘lit. one thousand times praised, much praised’,

*xilioipomenos* ‘lit. one thousand times said, much said’. A Greek speaker has a choice of using either (4) or (5):

- (5) *Mia polisizitimeni tainia*  
 ‘a much-discussed movie’

where *polisizitimeni* is a morphologically constructed word.

Finally, *kala* ‘well’ generates a degree interpretation when it modifies participles (*kala eksikiomenos* ‘well acquainted’) (parameter c) associated with closed scales (parameter a) having an absolute (context independent) standard of comparison (parameter b). Actually, in these cases, it receives both an intensifying and a ‘manner’ reading (Kennedy & Mc Nally 2002). Crucially, it’s the semantic/aspectual nature of the participle that permits a ‘manner’ only (as in *kala kadrarismenos pinakas* ‘well framed painting’) or an intensifying plus ‘manner’ interpretation as in (*kala tekmiromeni* ‘well documented’).

## 2. Theoretical prerequisites

Before moving to the analysis of Greek *poli* ‘very’ and *kala* ‘well’ we will briefly present the crucial distinctions that we adopt in our study.

Bolinger (1972) states that the distribution of degree modifiers cannot be accounted for by a purely syntactic explanation. Building on that, Kennedy & Mc Nally (2005) make use of the distribution of degree modifiers in English in order to develop a semantic analysis of gradable predicates based on two core features: a) the structure of the scale that a gradable property uses as a basis for ordering the objects in its domain and b) the nature of the standard of comparison with respect to which a particular use of a gradable property is evaluated. As far as the scale structure is concerned, Kennedy & Mc Nally (2005) claim that a scale can be open, when it lacks a minimal element, a maximal element or both, (e.g. *psilos* ‘tall’, *xarumenos* ‘happy’) or closed when it disposes minimal and maximal elements or values (e.g. *nekros* ‘dead’).

The standard of comparison, on the other hand, is either context-dependent, when a property may vary from context to context or context insensitive when a property is determined without reference to a context. Relative predicates are associated with context-dependent standards of comparison, while absolute predicates have context insensitive standards of comparison. Furthermore, Kennedy & Mc Nally (2005)

demonstrate that there is a principled relationship between a predicate's scale structure and its standard value: gradable predicates associated with totally open scales have relative standards, while gradable predicates that use totally or partially closed scales have absolute standards. In the next section, we apply the scale typology of Kennedy & Mc Nally (2005) as well as their diagnostic criteria in order to study the distribution and the degree readings of *poli* and *kala* in Modern Greek.

### 3. Degree modification with *poli*

#### 3.1 Adjectival modification with *poli*

The adverb *poli* modifies the majority of adjectives in Greek as shown in (6):

- (6a) O Janis ine poli psilos  
'John is very tall'
- (6b) O Janis ine poli omorfos  
'John is very handsome'
- (6c) O Janis ine poli xarumenos  
'John is very happy'
- (6d) \*O aeras ine poli aoratos  
'\*The wind is very invisible'
- (6e) \* ?To vivlio ine poli anoikto  
'\*?The book is very open'
- (6f) \* ?I poli aynosti plevra tu Jani  
'\*?This very unknown aspect of John'

The adjectives in (6a-c) which accept modification by *poli* are all gradable adjectives, denoting relations between individuals and degrees. In these examples, the modifier *poli* intensifies the gradable values these adjectives denote. For instance, in (7a and b):

- (7a) O Janis ine psilos  
'John is tall'
- (7b) O Janis ine poli psilos  
'John is very tall'

the difference between *psilos* 'tall' and *poli psilos* 'very tall' is that is that *poli psilos* 'very tall' denotes a property whose meaning is just like *psilos* 'tall', except that the

relative standard is raised by some amount. Another characteristic of the adjectives in (6a-c) is that they are all relative adjectives, whose standard of comparison is context dependent. In other words, what is considered *tall* may vary from context to context, according to the comparison class that is used. Thus, in a conversation about NBA basketball players the comparison class for *tall* might include many subjects that are much taller than Janis. If the standard of comparison is set very high, then (7a) is false. On the contrary, in a conversation about classmates, the standard of comparison might include subjects shorter than Janis, and then (7a) is true. As said before (see paragraph 2 above), according to Kennedy & Mc Nally (2005) relative predicates are related to open scales. If *psilos* is a relative adjective having an open scale, then it would be impossible to accept modification by maximality or proportional modifiers such as *endelos* ‘completely’, *kirios* ‘mainly’ and *miso-* ‘half’ (as in 8a-c):

- (8a) \*O Janis ine endelos psilos  
 \*‘John is completely/totally tall’
- (8b) \*O Janis ine kirios psilos  
 \*‘John is mainly tall’
- (8c) \* O Janis ine misopsilos  
 \*‘John is half-tall’

The reason why (8a) is impossible is that *endelos* ‘completely/totally’ identifies a maximal value that the adjective *psilos* ‘tall’ does not have. In a similar way (8b and c) are impossible because *psilos* ‘tall’ lacks minimal and maximal elements without which it is “impossible to calculate differences relative to minimum and maximum values on the scale and thus to identify the midway point required” by the proportional modifiers (Kennedy & Mc Nally 2005: 353). Consequently, *psilos* ‘tall’ is a relative predicate with an open scale. Generalizing, we could claim that in Greek *poli* modifies relative adjectives with open scales.

The impossibility of (6d-e) on the other hand, shows that in Greek *poli* is not distributed with absolute adjectives as *aniktos* ‘open’, *aynostos* ‘unknown’, *peθamenos* ‘dead’ which have an absolute standard of comparison (the property of being *aniktos* ‘open’ is determined without a reference to a specific context) and convey a closed scale (a minimal and a maximal endpoint). Once again the distribution of maximality of proportional modifiers provides evidence about the close–this time– character of the scale (as in examples 9a-c below):

- (9a) I porta ine endelos anoikti (misanikti)  
‘The door is completely/totally open’
- (9b) I endelos aynosti plevra tou Jani  
‘This totally unknown aspect of John’
- (9c) O aeras ine endelos aoratos  
‘The wind is totally invisible’

### 3.2 Verbal modification with *poli*

*Poli* also modifies verbs as in (10). We see that in English this use corresponds to ‘a lot’ and ‘very’:

- (10a) {Aγapao, fovame, xerome} poli  
love.1sg, be-afraid.1sg, be-glad.1sg poli  
‘I love a lot’  
‘I am very afraid’  
‘I am very glad’
- (10b) {Lambo, jalizo, mirizo} poli  
‘I twinkle, shine, smell a lot’
- (10c) {Meyalono, xondreno, psilono, omorfeno} poli  
‘I grow a lot’  
‘I become very fat, tall, beautiful’
- (10d) Zesteno poli  
‘I heat a lot’
- (10e) {Troo, pino} poli  
‘I eat a lot, drink a lot’
- (10f) {Trexo, kolimbo, perpato} poli  
‘I run, swim, walk a lot’
- (10g) Δjavazo poli  
‘I read a lot’

We can argue, that *poli* in examples like the ones in (10a-d) modifies the state denoted by the verb. For instance, it’s the degree of fear (10a), love (10a) or shining (10b) that is intensified. Bolinger (1972) calls these verbs *degree verbs*. On the other hand, in (10e-g) verbs are intensified for extensibility in that the amount of ‘eating’ (10e) or ‘drinking’ (10e) or ‘reading’ (10g) rather than the verb’s degree is intensified.

In others words, *poli* ‘a lot’ refers to a large quantity of the object. In this paper we focus only on degree verbs like the ones in (10a-d) and we set aside verbs as those in (10e-g). Degree verbs which allow degree rather quantity readings of *poli* are mainly psych verbs (see examples in 10a), verbs of emission (see 10b) or change of state verbs (see 10c, d). What these semantic categories of verbs have in common in their event structure, i.e. in their lexical semantic representation, is a STATE component which refers to a gradable property which is mapped onto a scale without minimal or maximal endpoints or values. Once more the evidence comes from the distribution of maximizing modifiers such as *endelos* ‘completely/totally’ which imply maximal or minimal values:

- (11a) \*{*Aγapao*, *fovame*, *xerome*} *endelos*  
 ‘\*I completely’totally love’  
 ‘\*I am completely/totally afraid, glad’
- (11b) \*{*Lambo*, *jalizo*, *mirizo*} *endelos*  
 ‘\*I completely/totally twinkle, shine, smell’
- (11c) \*{*Meyalono*, *xondreno*, *psilono*, *omorfeno*} *endelos*  
 ‘\*I totally/completely grow’  
 ‘\*I become totally/completely fat, tall, beautiful’
- (11d) \**Zesteno* *endelos*  
 ‘\*I totally/completely heat’

Hence the gradable properties of the verbs in example (11a-d) are associated with totally open scales.

### 3.3 *Participial modification with poli*

Corpus data show that a similar analysis can be offered for participles modified by *poli*. We looked for structures of the type *poli+participle* in S.E.K (Soma Ellinikon, Kimenon ‘Corpus of Hellenic Texts) and the search returned 25 cases from which 16 were cases where *poli* ‘very’ combined with psych-verb participles (as in (12a)), 7 were cases where *poli* ‘very’ combined with the participle *periorismenos* ‘restricted’ (see 12b), and finally one case with *poli* ‘very’ in combination with *apomakrismenos* ‘distant’ and one with *poli* ‘very’ in combination with *proxorimenos* ‘advanced’. Hence corpus data show that the most frequent use of *poli+* participle is with psych-verb participles.

- (12a) poli {αγαπιμενος, λιπιμενος, αγχομενος}  
 ‘lit. very loved, sad, stressed’
- (12b) poli {proxorimēnos, periorismēnos}  
 ‘lit. very advanced, restricted’
- (12c) poli {sizitimenos, perpatimenos, takdidēmenos}  
 ‘lit. very discussed, walked, travelled’

What all the above mentioned participles have in common is that they derive from atelic verbs (states or activities) which imply a minimal sub-event or state that supports the truthful application of the participial property to its arguments. This minimal sub-event maps on to a lower endpoint in a scale. Given that, we could assume that the scale of the above mentioned verbs has a minimal value and is consequently lower closed. However, since atelic verbs as the ones in (12) denote situations with no natural end-point there is no obvious maximal value on the scale. Consequently the scale of the participles in (12) should be open on the upper end and closed on the lower. In English (Kennedy & Mc Nally 2005), semi-open scales exclude *very* and prefer another degree modifier: *much*. What Greek seems to do is to use *poli* ‘very’ not only for predicates with totally open scales but also for participial predicates with semi-open scales, where English prefers *much*. In this specific case, Greek offers the morphologically constructed alternative structure:

- (13) Poliszitimenos, poliaγapimēnos, politaksiδēmenos  
 ‘much-discussed, much-loved, much-travelled’

*Poliszitimenos* ‘much-discussed’ in (13) can be paraphrased either as *sizitimenos* ‘discussed’ by many people or many times. We don’t claim here that the examples in (13) are cases of incorporation as Rivero (1992) claimed before. The main argument for not opting for an incorporation solution is that there is not a systematic derivation of a bound form *poli+participle* for every participle that accepts modification by *poli*; (for a convincing argumentation see also Kakouriotis, Papastathi & Tsangalidis 1997; Joseph 1997; Smirniotopoulos & Joseph 1998). What we are saying is that these are morphological compounds which are not derived syntactically. This seems to be a general strategy that Greek follows in intensifications (and includes also augmentative or diminutive suffixes, or intensifying prefixes) as opposed to English, Dutch and probably other Germanic languages which usually do intensification in the syntax.



#### 4. Degree readings of *kala* ‘well’

Let us now move to *kala* ‘well’. The first observation that should be made is that like all other manner adverbs, *kala* ‘well’ is distributed with verbs and participles. Our focus here will be on cases where *kala* ‘well’ modifies participles. Compare the uses of *kala* ‘well’ in examples (14a-c) with those in examples (14d-e):

- (14a) O prothipurygos ine kala enimeromenos  
‘The Prime Minister is well informed’
- (14b) I dimokratia ine kala oxiromeni  
‘Democracy is well fortified’
- (14c) O Janis ine kala {proetimasmenos, enimeromenos}  
‘John is well prepared, informed’
- (d) Ena kala kaðrarismeno eryo  
‘A well framed painting’
- (e) Ena kala rameno forema  
‘A well sewn dress’

In contrast with examples in (14d-e) which allow a manner/quality only reading, which originates from its categorical status of manner adverb, examples in (14a-c) permit both a degree reading and a manner/quality reading. A well informed Prime Minister is both a Prime Minister who is informed in the correct/appropriate manner, i.e. he has the correct information but also a Prime Minister who is informed to a good/high degree. And exactly this reading makes *kala* ‘well’ behave as a degree modifier, on a par with *poli* ‘very’ that we just discussed. Its semantic effects are similar to those of *poli* ‘very’: *it boosts the standard value of the attribute with which it combines*. For instance, the standard of “informedness” that a Prime Minister must have in order to be considered *kala enimeromenos* ‘well informed’ is higher than that required for a Prime Minister to be qualified as simply *enimeromenos* ‘informed’. However, its syntactic status is different from categorical degree modifiers like *poli* “in their ability to feed subsequent degree modification, including comparatives” (McNally & Kennedy 2002: 1):

- (15a) poli kala katartismenos vs. \*poli poli katartismenos  
‘very well qualified vs. \*very very qualified’
- (15b) o pio kala prosarmosmenos  
‘lit. the more well adapted, the better adapted’

We showed earlier that when *poli* combines with participles is distributed with participles originating from atelic verbs which have a lower value and an open upper endpoint. Our data show that *kala* ‘well’ combines with participles denoting gradable properties which have totally closed scales, i.e. have an upper and lower end point (16a) while is impossible with semi-open (16b-c) or totally open predicates (16d-e):

(16a) *kala* {*enimeromenos*, *eksikiomenos*, *proetimasmenos*}  
 ‘well {informed, acquainted, prepared}’

(16b) \**kala* {*ayapimenos*, *fovismenos*}  
 ‘\*well {loved, frightened}’

(16c) \**kala* {*psilos*, *omorfos*}  
 ‘\*well {tall, beautiful}’

We have shown earlier (see 3.3) that participles like the ones in (16b) have semi-closed scales and also that adjectives like the ones in (16c) are totally open (see 3.1). The totally closed character of the participles which combine with *kala* can be proved by their ability to combine with maximality modifiers like *endelos* ‘totally/completely’:

(17) *endelos eksikiomenos*  
 ‘totally acquainted’

The question that is raised now is why a degree reading is possible with 14 (a-c) – *well informed*, *well fortified*– and not with (14d-e) –*ena kala kaδrarismeno eryo* ‘a well framed painting’, *ena kala rameno forema* ‘a well sewn dress’? According to McNally & Kennedy (2002: 2), the degree reading of *kala* is conditioned by the nature of the participles’ standard value. “Specifically the standard value cannot be the maximum value on the scale”. Thus *kala* ‘well’ can intensify the standard value on the scale of ‘informedness’, or ‘preparation’ in (14a and c) respectively because a person can be characterized informed or prepared even if he has a minimal amount of ‘informedness’, or ‘preparation’. (14d and e) do not lend to a degree reading because the standard value of the participles *kaδrarismeno* ‘framed’ and *rameno* ‘sewn’ coincide with the maximum value on their respective scales. A dress can be said to be sewn when the action of sewing is completed, in other words when it has reached the maximal value in the scale of sewing in the same way that a painting can be said to be framed when the process of framing has been completed. Actually the degree reading

of *kala* ‘well’ is produced when it combines with incremental predicates having totally closed scales, while the manner-quality only reading is produced when *kala* combines with classic telic verbs equally having totally closed scales. Kennedy & McNally (2005: 377) propose an interpretation of well “as an expression that takes a closed-scale adjective as input and returns a new gradable adjective meaning based on the relative adjective *good*”, which they assume underlies *well*. According to them, “the derived predicate measures the goodness of the event that is related to the degree to which the subject has the property named by the adjective”.

## 5. Conclusion

In this paper we presented a semantic analysis of the degree adverb *poli* ‘very’ and the degree vs. manner readings of the manner adverb *kala* ‘well’ in Modern Greek. Our analysis made use of the semantic typology of gradable predicates proposed in Kennedy & McNally (2005). We showed that the distribution of Greek of *poli* ‘very’; and *kala* ‘well’ is sensitive to the following three parameters:

- (a) the nature of scale (open or close) associated with a gradable predicate;
- (b) the nature of the standard of comparison which may be absolute or relative;
- (c) the morphological type of the scalar predicate.

As a result, *poli* ‘very’ is selected by adjectival predicates or participles of psych-verbs associated with open scales with a relative (context dependent) standard of comparison. On the other hand, *kala* ‘well’ modifies participles associated with closed scales having an absolute (context independent) standard of comparison. Finally, degree readings of *kala* ‘well’ arise only when *kala* combines with incremental predicates whose standard value cannot be the maximum value on the scale, while the manner-quality only reading is produced when *kala* combines with predicates whose standard value is the maximum value on the scale. These are usually classic telic verbs.

A summary of what has been discussed in this paper is presented in table 1:

poli	1. adjectives	Open scales
	2. atelic verbs (STATE component)	Open scales (psych verbs, verbs of emission or change of state verbs)
	3. participles	Semi-open (lower endpoint)
Kala ‘manner/quality reading’ only	Participles from telic verbs	Totally closed
Kala +degree reading	Participles with incremental themes	Totally closed

Table 1. Distribution of *poli* ‘very’ and *kala* ‘well’

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