

Grammaticalization, Lexicalization and Total Reduplication: an Example from Modern Greek

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Abstract: Total reduplication, i.e. word iteration in the form of *X-X*, shares common features both with morphological reduplication, a grammatical category (e.g. *λέ-λοιπα*), and word repetition, a pragmatic strategy (e.g. *Σίγουρα! Σίγουρα!*). Thus, an attempt is made here to locate the phenomenon either on the side of grammar or of pragmatics or on a supposed continuum between the two (cf. Gil 2005). A particular construction is taken up, the *Verb-Verb* reduplication in Modern Greek (e.g. *pes-pes*), which is viewed here as a grammatical operation with a systematic effect on the lexicon. Hence, grammaticalization is seen alternatively not as the birth of grammatical morphemes, but as intertwined and interacting with lexicalization (Lehmann 2002).

Key Words: Grammaticalization, construction, lexicalization, autonomy of a sign, reduction, restrictions

1. The V-V construction in Modern Greek

To define the form and the features of the category that is of interest here, let us consider the following examples:

- (1) *pes mas to anekdoto, pes mas to anekdoto, ton trelanane*
tell-2.SG.IMP us the joke tell-2.SG.IMP us the joke him drive crazy-3.PL.PST
'They kept asking him to tell them the joke and so drove him crazy'
- (2) *kane ipomoni - kane ipomoni, kurastike*
make-2.SG.IMP patience make-2.SG.IMP patience, get tired-3.SG.PST
'Being patient all the time, he finally got tired'
- (3) *pes-pes, ton epise na tis ayorasi aftokinito*
say-2.SG.IMP.RED him convince-3.SG.PST to her.BEN buy-3-SG.SBJV car
'By constant telling him so, she convinced him to buy her a car'

These three possible utterances in MG share a number of common characteristics, but are also distinct on the basis of important differences. Starting with the similarities, all three involve the iteration of a verb in the imperative. The meaning of this iteration is long duration of an action, and more specifically, the continuation of an action up to a result. This is reflected in the position of the iterative verb phrases, that is, before the main clause, from which they are separated by a comma. What is more, the intonation pattern in which they are most probably uttered is rising, characteristic of expectation of a result.

Turning to the differences now, we should note that, whereas in sentences 2 and 3 the repetition of the verb expresses long duration of the action that the same verb denotes, sentence 1 expresses long duration of the *request* that the proposition TELL JOKE be realized. In fact, case 1 belongs to what Tannen (1989) calls *constructed dialogue*, because it is the speaker who quotes what the people kept requesting, and, by citing their words twice, he conventionally represents the insistence of their request, which

resulted in the other person's going crazy. Sentence 2 is indeterminate in relation to this aspect of repetition, in that, it could express constructed dialogue if there was indeed someone in the context who suggested being patient. If not, the repetition of *kane ipomoni* shows extension of the 'being patient' state, which is the cause of the person's tiredness. By contrast, *pes-pes* in sentence 3, is opaque in that there can be no participant in the context who can be imagined as the agent of the demand *pes* (and if there was, it would not make much sense). In other words, the imperative is strictly conventional in 3.

Cases 1 and 2 for Modern Greek have been identified by Kakridi (1989: 196) as instances of *iconic repetition* (*απεικονιστική επανάληψη*) and are considered to belong to a universal type of repetition, the one which expresses long extended (continuous) or repetitive (discontinuous) process. Following Persson (1974), Kakridi mentions the possibility that this kind of repetition is joined with the conjunction *ke* ('and'). Indeed, in both sentences 1 and 2, *ke* is possible between the repeated verbs. Note that in sentence 2, the presence of *ke* reassures that the sentence belongs to the *constructed dialogue* type, namely, it resolves any ambiguity about the role of the imperative. In contrast to the above, *ke* is not allowed to be inserted between *pes* and its double in sentence 3.

Another way in which the verb repetition of sentence 3 is special is the importance of the imperative for the particular construction. As aforementioned, the imperative is conventional in 3, because there can be no agent who demands that the proposition be realized. Rather, the imperative appears to be the conventional form that the double verb takes in order to show the extension of the activity denoted. It should be said that the imperative without reduplication is also quite prone to denote nominalized activities:

- (4) *Sto eba, ton arpakse apo ta malia*
 At-the enter-2.SG.IMP him grab-3.SG.PST from the hair
 'Upon his entering, s/he grabbed him from the hair'

However, in sentence 3 the imperative is not just an option, but it is obligatory for this class of verbs. Contrary to that, the repeated verbs in sentence 2 can appear in other moods, mainly the Indicative. Compare:

- (5) *Ekane ipomoni, ekane ipomoni, kurastike*
 make-3.SG.PST.IND patience get-tired-3.SG.PST.IND
 'He was patient all the time, until he got tired'
- (6) **ipe-ipe, ton epise na tis ayorasi aftokinito*
 say-2.SG.PST.IND.RED him convince-3.SG.PST to her.BEN buy-3-SG.SBJV car
 'She said it again and again and finally got him to buy her a car'

It should be noted, however, that the indicative is possible in 6, if we consider it a case of repetition, in which case we would have to represent the two juxtaposed verbs without a hyphen, but a comma between them. The difference between repetition and reduplication, thus, is a difference of status: *pes-pes* is a unit (a lexical phrase), *ipe, ipe* is not. This difference is also reflected on the number of repetitions allowed in each case. Kakridi claims that, although the number of repetitions iconically represents the length of the activity (and thus increases according to the emphasis intended), two or three repetitions are enough for the speaker to conventionally (and *quasi-iconically*, Kakridi 1989: 205) express long duration. On the other hand, reduplication, as the term implies, allows only one doubling.

The latter suggests that the reduplicative *V-V* construction has certain boundaries, which other kinds of verb repetition do not set. As example 2 implies, the repetition of *kane* does not prevent it from taking an object (*ipomoni*). In contrast, *pes* in *pes-pes* appears without an object, although it is a transitive verb, and if an object is permitted, it is the whole construction that takes it and not the individual verbs (**pes to paramithi-pes to paramithi, ton epise* but *pes-pes to paramithi, ton epise*). In other words, the reduplication of *pes* involves a degree of internal coherence that cannot be violated.

The same coherence allows the construction in 3 to behave as a nominal phrase, which is evident in the fact that an article can appear before *pes-pes*. The article is also possible in the other two examples, but it may be there only to introduce the quoting of one's words, as is possible with any sentence, outside the realm of iteration. In that sense, *to kane ipomoni-kane ipomoni* (the make-2.SG.IMP patience make-2.SG.IMP sentence) is comparable to:

- (7) *To "erhome spiti sas ke kano oti thelo" emena de m aresi*
 the come-1.SG.PR home yours and do-1.SG.PR whatever want-1.SG.PR me not
 like-3.SG.PR
 'I don't like one saying 'I come to your house and do what I want'' or
 'I don't like one coming to my house and doing what s/he wants'

Therefore, in the case of repetition, verbs are totally free in syntactic terms, whereas reduplication sets restrictions to each verb involved in the reduplicative expression. Another, less evident, example of a restriction is that *V-V* constructions, unlike their repetitive counterparts in other moods, can stand as subordinate clauses, without connecting to the main clause via a conjunction. More clearly, examples 5 and 6 can appear with the conjunction *ospu* (*ὄσπου*), which establishes subordinate status to the sentence after them. That is, the iterative verbs constitute two main clauses, followed by a clause of result:

- (8) *Ekane ipomoni, ekane ipomoni, ospu kurastike*
 make-3.SG.PST.IND patience until get-tired-3.SG.PST.IND
 'He was patient all the time, until he got tired'
- (9) *ipe, ipe, ospu ton epise na tis ayorasi aftokinito*
 say-2.SG.PST.IND.RED until him convince-3.SG.PST to her.BEN
 buy-3-SG.SBJV car
 'She said it again and again until she finally got him to buy her a car'

By contrast, sentence 3 defies the necessity of a conjunction, and, in fact, the *V-V* construction is unacceptable in the presence of a conjunction. This is because normally *pes-pes* plays the role of an adverbial equalling a subordinate clause, while the result that follows is expressed by a main clause:

- (10) **pes-pes, ospu ton epise na tis ayorasi aftokinito*
 say-2.SG.IMP.RED until him convince-3.SG.PST to her.BEN buy-3-SG.SBJV
 car
 *'By constant telling him so, until she convinced him to buy her a car'

Note that the independence of *pes-pes* from the existence of a conjunction goes on a par with its total dependence on the main clause that follows. Its position and dependent nature is very similar to that of a participle. In other words, the two instances of *pes* cannot function as finite verbs which are able to form clauses.

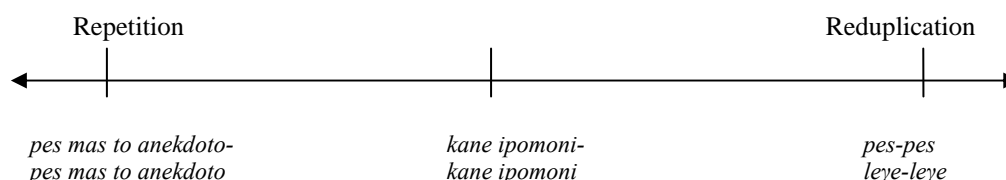
To sum up, the category of reduplicative verbs, such as *pes-pes*, *trava-trava*, *leye-leye* etc., are special both with respect to free verbs and with regard to repetitive verbs. Their iteration is restricted to only one time and the verbs themselves are restricted to the imperative mood. Also, the individual verbs freeze in one morphological option, the second person singular. Syntactically, they do not take individual objects or complements, nor can they be conjoined with *ke*. What is more, the juxtaposed verbs together seem to form an autonomous lexical unit, which can nominalize or replace a subordinate clause which expresses the cause of a result. Their particular morphological and syntactic features are shown in the table that follows, which also includes another case of iterative verb construction (e.g. *milai yia na milai*) for greater contrast.

Table 1: Morphological and syntactic features of verbs in the *V-V* construction in contrast to variously free verbs

	PERSON	NUMBER	MOOD	TENSE	ASPECT
Free Verbs	3	2	±Imp	± Past	±Pfv / ±Perf
<i>V yia na V</i>	3	2	- Imp	<i>V2</i> : - Past	±Pfv / ±Perf
<i>V-V</i>	1	1	+Imp	- Past	±Pfv / -Perf

As is obvious from the table, the verbs forming *V-V* reduplicative expressions are the least free, and as commonly thought, their constructions are rather grammaticalized. In fact, if one wished to place the *V-V* construction on a point of a continuum between repetition and reduplication, one would have good reasons to place them on the reduplication end. The other cases of repetition we have seen (sentences 1 and 2), having proved syntactically and morphologically freer, will gradually retreat to the opposite end, at the side of the free phenomenon of repetition:

Figure 1: The continuum between Repetition and Reduplication and the allocation of our instances of verb iteration



Thus, a type of lexeme is located on the grammaticalized end of a linguistic process. Let us now further explore what it means for it to be placed on that position.

2. Grammaticalization and Lexicalization

Although lexicalization is commonly understood as having the opposite effect on linguistic items than that of grammaticalization (based on the opposition between Grammar and Lexicon), it seems that the two processes have the same symptoms, which run parallel under a common denominator: the reduction of the autonomy of a linguistic sign (Lehmann 2005). More clearly, both lexicalization and grammaticalization involve the loss of independency of signs and, under this light, they both coincide with similar or parallel changes on those signs.

Following Lehmann 2002, I will present the symptoms of autonomy reduction which are relevant to the *V-V* structure. These symptoms concern the following basic properties of signs: weight and cohesion (Lehmann 2002: 109). These two aspects will be analysed on both the paradigmatic and the syntagmatic axis.

The weight of a sign viewed paradigmatically is the degree to which the sign is integer and distinct from others, whereas, syntagmatically, weight concerns the power

that a sign has so as to take other signs under its scope. In turn, the integrity of the sign may refer either to its phonological, morphological or semantic status and quality.

Let us take up phonology first. Loss of integrity in phonological terms means phonological erosion. The *V-V* construction does not exactly show phonological erosion, since both *V*s remain stable in their segmental size and quality. Nevertheless, a change pertains to the subtraction that the construction undergoes in terms of supra-segmental features, particularly stress. In fact, if we accept that the reduplicative unit has one stress, loss of stress is something that happens to one of the two verbs. Alternatively, it is possible to think of this phonological change as a rearrangement of stress and intonation over the whole construction with the allocation of particular features to each part of the dyad. What is more, if the phonological distinctness of a sign also includes the breath boundary that separates it from its neighbouring items, both verbs lose such distinctness, as the pause between them either decreases or disappears.

Moving to morphology, the construction in question undergoes what Lehmann calls “morphological degeneration” (2002: 118). This pertains to loss of inflectional categories as well as fossilization of the expression in one inflectional category. Now, if loss of morphological distinctions is a measurable value, it is impressive that the *V-V* reduplications share only 6 of the 15 morphological features that potentially appear in the category of Greek verb (see Table 1). To put it differently, the construction as a whole and each of the stems separately maintain half of their verbal quality. This group of restrictions is combined with fixedness on one particular format which includes: 2nd person Singular only, Imperative Mood only and, thus, inability of past or future distinctions, both Perfective and Imperfective Aspect as the Imperative allows, and lack of gerundial or participial forms. What this format excludes is shown in Table 1.

In the field of semantics now, loss of autonomy is translated as loss of semanticity, and, particularly, as decrease in the semantic components that make up the meaning of a sign (Lehmann 2002: 114) or bleaching of specificities in the meaning of a lexeme (Sweetser 1988). Desemanticization in this strong sense does not appear in the case of the *V-V* reduplication. However, the lexeme that reduplicates can only take part in the construction in a particular sense (usually its prototypical, literal meaning) and not in idiomatic or metaphorical senses. For instance, in the expression *leye-leye* (‘say-IMP.2SG-say-IMP.2SG’= by constant talking), *leo* (‘say’) is not allowed to assume its idiomatic meaning of “being good or worthwhile”, or, to put it differently, *leo* intended to mean “be good or worthwhile” cannot reduplicate. It can merely reiterate for emphasis or pragmatic reasons. Note that with this latter meaning it cannot even inflect for imperative because the meaning “be good” is incompatible with the imperative mood.

At this point, we should note that the changes mentioned concern the single item that enters the construction and not the construction itself. Up to now, the individual signs (*leye*) which participate in the *V-V* construction seem to lose part of their phonological, morphological, and, perhaps, semantic autonomy and potential. At the same time, the new lexical unit that arises acquires phonological distinctness, morphological status, and a meaning of its own (*leye-leye*). To be clearer, the construction assumes a particular melody that spreads over both stems (mainly due to its usual syntactic position), it gains specific form (basically characterized by the fixed imperative) and acquires particular meaning and connotations, all of which make it part of a paradigm. To conclude, the more the single items participating in the construction lose their autonomy, the more the whole construction gains autonomy. We seem to have two opposite forces moving at the same time, on the same field, and these are grammaticalization and lexicalization. In other words, while the construction in terms of

its individual words seems to grammaticalize, the constructional unit as a whole seems to lexicalize.

However, *leye-leye* has nothing to do with grammar, that is, it does not grammaticalize in the sense of becoming grammatical, abstract and obligatory. Both *leye-leye* and single *leye* are still lexemes, which are freely and optionally used by speakers. To say that it grammaticalizes presupposes a view on grammaticalization broader than the production of grammar as such. Lehmann claims that “it is unwise to elevate grammaticalization to the ‘creation of grammar’ per se” (2005: 4) and seems to accept that it refers to heterogeneous manifestations of language activity, but regards obligatoriness and analyticity as crucial characteristics of the result of grammaticalization. Brinton & Traugott (2006) also define grammaticalization as the phenomenon whereby parts of constructions are used with a grammatical function by speakers, and grammatical function is again determined by its obligatory, abstract and relational nature. Thus, there is no theoretical point of view from which the changes in the autonomy of the individual verbs we are studying could be seen as evidence for grammaticalization. It is rather lexicalization which is taking place, and which one could mistake for grammaticalization due to the same symptoms.

Indeed, signs of lexicalization are strongly suggested by the appearance of univerbation, the process of joining the two stems together and the loss of phonological, morphological or syntactic boundaries between them. Furthermore, the reduplicative unit behaves as a lexeme in that it can nominalize, it expresses a particular meaning of its own and has a unified syntactic role, usually that of an adverbial.

Nevertheless, in trying to distinguish the two processes, Brinton & Traugott (2006) also observe that lexicalization does NOT involve, among other things, decategorialization, productivity / paradigmaticization, and cross-linguistic generality, all of which are present in grammaticalization. It will be shown now that the *V-V* construction presents those features to some degree, and, therefore, there is some degree of grammaticalization involved in the development of the particular construction into a lexeme.

Decategorialization, that is, the loss of categorial features, was demonstrated above with the analysis of morphological degeneration of the verbs involved in the construction, the loss of their transitivity and the inflexibility of the construction and its participants to behave as verbs. More clearly, it was shown that the restrictions set upon the individual verbs as well as on the construction as a unit lead to their inability to inflect for most verbal categories. Its syntactic position and function, namely its adverbial use, in combination with the meaning it has acquired reveal a different status, that of an adverbial. What is more, it is possible for the construction to receive an article and be predicated as a noun or even take an adjective before it. Loss of verb characteristics, adverbial function and potential nominalization are pointing towards the shift of the construction into a different category.

As far as paradigmaticization is concerned, increase in paradigmaticity is also mentioned as a sign of grammaticalization by Lehmann (2002: 110). In fact, this change concerns the second characteristic of a linguistic sign mentioned by Lehman, that of cohesion. The term paradigmaticity refers to the degree to which a sign is cohesive with other signs in a language or the degree to which it fits to a paradigm. The *V-V* reduplications do form a group which shares the formal properties indicated by Figure 1 and meaning / function which make them similar and, at least to the most idiomatic end, tightly integrated. Note that in the case of idioms, the fact that there is more than one with the same properties is important for their analysis as something more than idioms. Lehmann discusses the issue of periphrastic words forms (synthetic verbs or compound

prepositions) and whether they should be treated in grammar. The ultimate criterion, he says, is paradigmaticity, in the sense that, “if there is no paradigm, there is no periphrastic word form, but merely a combination of words” (2002: 121). Apart from similarity in their formal and semantic properties, the *V-V* reduplications also present productivity which results to a range from a relatively closed class that includes the most common idioms of this type (*pes-pes*, *leye-leye*) to the open-class reduplication of almost any verb in the imperative (*trexe-trexe*, *fae-fae*). Obviously, the paradigm will set some restrictions or preferences on the items that may enter it on a semantic basis, but also perhaps on a phonological basis (e.g. items of no more than three syllables).

Turning to cross-linguistic generality mentioned by Brinton & Traugott, we could remark that the juxtaposition of verbs which restricts participant verbs in this or the other way is not a uniquely Greek linguistic phenomenon. A good example of a very similar situation comes from Russian, evidenced by Israeli (1997: 592):

- (11) *Čitala- čitala i zasnula.*
 (she/I)-read (she/I)-read and (she/I)-fell-asleep
 ‘She read for a while and fell asleep’

Israeli is primarily interested in the pragmatics of what she calls “syntactic reduplication” of nouns, verbs, adjectives and adverbs in Russian, therefore, she does not explicitly refer to the grammatical characteristics of such constructions. She only mentions that the repetition is restricted to imperfective or perfective verbs with certain limiting prefixes and suffixes (1997: 591). Moreover, she specifies that this kind of reduplication “means that the action took place for a long time but was over at some point, most commonly because its result or purpose was not or could not be achieved.” In other words, the meaning of Russian verb reduplication is reverse but quite relevant to that of the Greek one, which expresses the process towards and the reason for a particular result. What is more, the orthographic representation of the Russian case suggests that the two verb stems form a unit, just as in the Greek constructions, and unlike English, where long duration of an action is expressed by an analytic construction and not by a compound:

- (12) *Ždala-ždala, terpela-terpela i rešila sama exat’ na front* [Russian]
 (she)-waited (she) waited (she)-was-patient (she)-was-patient and decided herself
 to-go to front

- (13) She patiently waited and waited and then decided to go to the front herself

- (14) *Trava-trava, to ksexilose to pulover tis* [Greek]]
 Pull-IMP Pull-IMP the-NEU misshape-PST the sweater her
 ‘By constant pulling, she misshaped her sweater’

Also Turkish, as Setatos (1994) mentions, presents constructions made up of a double verb in the Imperative which express duration, such as *koşa koşa* (‘run-IMP run-IMP’). This evidence suggests that, even though not universal, there is at least an areal tendency for reduplication to affect verbs in two ways: firstly, it extends the duration of the action or event described by the verb and this long duration is commonly connected to some result; secondly, it creates integer lexical phrases with special formal characteristics. All this points towards the assumption that reduplicative verbs with this function in the above languages are cases of lexicalization induced by a grammatical operation and not by accidental facts of the language (as purely idiomatic lexicalizations might be).

3. Conclusion

Throughout our theoretical analysis, we encountered evidence for both processes of language change, grammaticalization and lexicalization. Synchronically, the *V-V* construction demonstrates characteristics of lexemes created through word formation processes, but at the same time it seems to derive from a diachronic process of grammaticalization of free verb repetition. To understand how grammaticalization can take place without anything grammatical being created (while something lexical indeed arises), or else to compromise grammaticalization with lexicalization, requires a notion of grammaticalization that i) departs from the traditional idea of a process that enriches the grammar and ii) concerns the process of reduplication rather than its outcome. Consequently, the *V-V* construction is a case that presents both lexicalization and grammaticalization. Reduplication, in turn, is a grammatical process or category in its own right, and at the same time, it comes to be seen as an active and productive operation on words, in order for speakers to access particular pragmatic meanings in an economic way.

Appendix: List of Abbreviations

BEN	Benefactive
FUT	Future
IMP	Imperative
IND	Indicative
PERF	Perfect
PL	Plural
PR	Present
PRFV	Perfective
PRTCL	Particle
PST	Past
RED	Reduplication
SBJV	Subjunctive
SG	Singular
V	Verb

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