The loss of null objects and the emergence of the D-system: pre-Koine vs. post-Koine Greek

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1. Aim

This paper explores the relationship between the loss of null definite objects (in (Hellenistic) Koine Greek) and the development of the D-system in Greek. The hypothesis of this study is that the absence of null objects is a phenomenon related to their formal status as D-elements (Tsimpli 1999; Tsimpli & Stavrakaki 1999; Kowaluk 2001). We propose that (a) Koine and post-Koine Greek have clitics that are D elements and strong pronouns that are N elements and, therefore, do not allow null definite/referential objects (see ex. 1); (b) Pre-Koine Greek does not have D elements, but has full personal pronouns and clitics of N-type and, therefore, allows null definite/referential objects (see ex. 2).

2. D-system and null objects in pre- and post-Koine Greek

Pre-Koine Greek articles have deictic and referential characteristics; they do not distinguish between definite and indefinite but between animate and inanimate. [See (i) and below for more discussion].

(i) [DefP... [Def$_{[+/-Deictic]/[+/-Animate]}$...[NP...]]]

On the other hand, definite articles and object clitics in post-Koine Greek are both associated to referentiality that derives from a feature-matching relation between the Def(initeness) head and an antecedent (see ii).

(ii) [DefP... [DP$_{[case]/[phi-]}$...[NP...]]] (Tsimpli & Stavrakaki 1999)

Indefinite articles and demonstratives in post-Koine Greek are inherently specified with the feature of referentiality, appear on Def head, and consist of interpretable features.

Similar to the contrast between indefinite and definite articles, personal pronouns of 1st and 2nd person have phi-features (interpretable person features) in both pre- and post-Koine, whereas 3rd person personal pronouns have uninterpretable features and vary cross-linguistically and diachronically (Cardinaletti & Starke 1996, among others). According to the above remarks, in our preliminary corpus study, we distinguish between definite and indefinite articles as well as between 3rd and 1st/2nd person object pronouns.

3. Emergence of the D-system and the development of the object pronouns

Table 1 shows that the process of the loss of null objects is evident in the data of presence of direct objects. In a similar manner, the definite article developed between Homer and Classical Greek, whereas the indefinite article appears in Koine Greek (first cent. A.D.) (see data in Table 2); there is no distinction between a definite determiner and an indefinite determiner with singular count nouns until the first century A.D. (Manolessou 2001; Bakker 2009; Guardiano 2013). With regard to object pronouns and their development, we will argue that first we have a categorical change in the pronouns from demonstratives into referential pronouns. In Koine Greek, object pronouns become "verb-centered", and they refer to an antecedent. Their position depends on phonological parameters as in pre-Koine Greek (focused elements can cause preverbal position of the pronoun). However, Koine Greek object pronouns have a new featural composition and a new syntactic behavior: they are verb-centered and deictic/ referential. Table 3 shows that the use of 3rd person personal pronouns in Greek is not stable, and there appears to be an increase in their use in Classical Greek, but mainly in Koine Greek. 1st and 2nd personal pronouns follow the increase of 3rd person pronouns, but with a small delay (a high increase in the frequency of the use of 1st and 2nd person personal pronouns can be observed in Koine Greek). If we compare Tables 2 and 3,

similar tendencies for definite articles and personal pronouns in Greek are evident: the increase in the frequency of the definite articles is attested in a parallel path with the increase in the use of the 3rd person personal pronouns in Greek (statistically significant correlation). The data show the process of grammaticalization of the D-system in Greek. The development of the Greek D-system reflects the development of null objects. Modern languages with null objects that lack a D-system (for instance, Slavic languages or Turkish) lack pronominal clitics as well. Greek appears to lose null definite objects after the emergence of the D-system.

(1) Post-Koine (Modern Greek)
-Ti   ekanes ta   aplita piata$_i$?
 what did   the dirty dishes
 'What did you do with the dirty dishes?'
-(Ta)   eplina   pro$_i$ ke *(ta)   pro$_i$ skupisa.*
   (them) washed pro and (them) pro dried
 'I washed [them] and I dried [them].'
(2) Pre-Koine (Herodotus)
kaí   min   Athēnaîoi   dēmosíēi   te   éthapsan   autoû
and   he.ACC Athenians.NOM   public-expense.DAT   and   buried.3PL   there
têi   per   épese   kaì   Ø   etímēsan   megálōs.
where   PTC   fell.3SG   and   Ø   honored.3PL   greatly
 'And the Athenians buried him at public expense on the place where he had fallen, and honored [him] greatly.' (Hdt. 1,30,4)

Table 1. *Frequencies of verbs with an overt direct object vs. verbs without an overt direct object*

	V without a Direct Object	V with a Direct Object
Homer	37.31%	62.69%
Herodotus	33.97%	66.03%
New Testament	31.79%	68.21%

Table 2. *Frequencies of (i) use of definite articles vs. absence of definite articles, (ii) use of indefinite articles*

	Use of definite articles	Absence of definite articles	Use of indefinite articles
Homer	12.28%	87.72%	0.23%
Herodotus	60.62%	39.38%	0.65%
New Testament	69.26%	30.74%	1.30%

Table 3. *Frequencies of use of 3rd vs. 1st/2nd person personal pronouns in the accusative*

	Use of 3rd person personal pronouns in the accusative (compared to all other NPs in the accusative)	Use of 1st and 2nd person personal pronouns in the accusative (compared to all other NPs in the accusative)
Homer	2.90%	3.81%
Herodotus	10.94%	3.44%
New Testament	18.93%	13.55%

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