

EXPERIENCER OBJECTS AND OBJECT CLITICS IN MODERN GREEK:

EVIDENCE FROM A CORPUS STUDY

Elisabeth Verhoeven

University of Bremen

everhoev@uni-bremen.de

Abstract

Studies on experiencer verbs have shown that certain object experiencers show a special syntactic behavior in contrast to objects of canonical transitive verbs. For Modern Greek, it has been argued that genitive and accusative experiencers co-occurring with non-agentive stimuli display subject-like behavior which manifests itself syntactically through obligatory clitic doubling (Anagnostopoulou 1999). This paper investigates corpus evidence for a distinctive behavior of object experiencers in constructions with pronominal object clitics, in contrast to (canonical) transitive objects. A study of the *Hellenic National Corpus* shows that experiencer objects are indeed more often coded as pronouns and occur more frequently in constructions with clitic doubling and clitic left dislocation than canonical transitive objects. However, contrary to former claims, it turns out that (a) clitic doubling is a very rare phenomenon in written discourse and (b) it is a largely optional phenomenon with non-agentive experiencer object verbs.

1. Introduction¹

1.1 Two types of experiencer object verbs

Modern Greek has experiencer object (henceforth EO) verbs belonging to two different valency frames. Some of the verbs license an oblique experiencer which may be coded either in the genitive (1a) or in a prepositional phrase (1b). Some other verbs govern an experiencer argument in accusative case (2) (s. Anagnostopoulou 1999, Kordoni 1999).

- (1) a. *To krasí tu arési*
DEF:NOM.SG.N wine:NOM.SG.N 3.SG.GEN.N please:3.SG
tu pétru.
DEF:GEN.SG.M Peter:GEN.SG.M
'The wine pleases Peter.'²

¹ Work on this paper was financially supported by project 10/853/05 (University of Bremen). Special thanks are due to Stavros Skopeteas for helpful discussion and advice as native speaker of Greek.

b. *To* *krasí* *arési*
 DEF:NOM.SG.N wine:NOM.SG.N please:3.SG
s-ton *pétro.*
 LOC-DEF:ACC.SG.M Peter:ACC.SG.M
 ‘The wine pleases Peter.’ (Anagnostopoulou 1999:69)

(2) *Ton* *pétro* *ton* *anisiχí*
 DEF:ACC.SG.M Peter:ACC.SG.M 3.SG.ACC.M worry:3.SG
i *katástasi.*
 DEF:NOM.SG.F situation: NOM.SG.F
 ‘The situation worries Peter.’ (Anagnostopoulou 1999:68)

As in many languages, a number of Modern Greek verbs with accusative marked EOs are systematically ambiguous between an agentive and a non-agentive/causative reading (s. Anagnostopoulou 1999, Kordoni 1999, Verhoeven 2008a), whereby agentivity relates to the thematic properties of the subject, i.e. the stimulus constituent. The behavior of a Modern Greek accusative marked EO verb is exemplified in (3a): the verb *enoχlí* ‘bothers’ may be interpreted as agentive, as the optional translation ‘intentionally’ is meant to imply. However, this is not a necessary part of the interpretation of this sentence: a non-intentional reading, i.e. with a non-agentive stimulus, is possible as well. Note that agentivity is a thematic property that requires conscious event participants, i.e. animates, simply due to ontological restrictions that do not depend on grammatical properties. It follows that if the stimulus is not animate, only the non-agentive reading is possible as exemplified in (3b).

(3) a. *I* *maría* *enoχlí*
 DEF:NOM.SG.F Maria:NOM.SG.F bother:3.SG
ton *pétro.*
 DEF:ACC.SG.M Peter:ACC.SG.M
 ‘Maria bothers Peter (intentionally).’
 b. *Ta* *épipla* **?(ton)*
 DEF:NOM.PL.N furniture:NOM.PL.N 3.SG.ACC.M
enoχlún *ton* *pétro.*
 bother:3.PL DEF:ACC.SG.M Peter:ACC.SG.M
 ‘The furniture bothers Peter.’ (Anagnostopoulou 1999:78/79)

Following the analysis of Anagnostopoulou 1999, the difference between an agentive and a non-agentive causative interpretation is syntactically implemented in the following way. EOs show obligatory doubling of the object clitic with non-agentive readings of the

² The following abbreviations are used in the glosses of the examples: ACC accusative, DEF definite, F feminine, GEN genitive, IMPF imperfective, LOC locative, M masculine, N neuter, NOM nominative, PFV perfective, PL plural, PST past, SG singular.

experiential verb (3b), while clitic doubling is optional with the respective verbs in their agentive reading (3a). Following this account, the verb *enoχλί* in (3a) is expected to have only an agentive reading since the non-agentive one requires clitic doubling.

EO verbs which are systematically ambiguous between an agentive and a non-agentive reading are called ‘labile’ in this paper (as e.g. *enoχλί* ‘bother’). Other EO verbs, as e.g. *enδιαφέρο* ‘interest, concern’, *aréso* ‘please’, are necessarily understood as non-agentive, even with an animate stimulus. These will be referred to as non-agentive EO verbs.

This paper presents corpus evidence for the interaction of object experiencers with object clitics. The research question of this investigation is whether clitics are required with non-agentive readings of EO verbs. Moreover, the corpus analysis will shed light on the co-occurrence of object clitics with the mentioned types of EO verbs in different constructions such as clitic left dislocation, clitic doubling, and relative clause constructions with an extracted object. In order to evaluate the observations related to experiencer verbs, their behavior is compared to that of a number of canonical transitive verbs in the same constructional contexts.

1.2 Pronominal object clitics

The pronominal clitics of Modern Greek constitute a paradigm of non-emphatic personal pronouns, which can only bear a postlexical accent (contrary to the emphatic personal pronouns). They occur with accusative and genitive marked constituents, which are part of the VP (i.e. case marked direct and indirect objects and some genitive marked adjuncts, e.g. beneficiaries). They occur adjacent to the verb, i.e. they are proclitics to finite verb forms, and form a phonological word with them.

There are two syntactic construction types, which involve the combination of an object clitic with a coreferential lexical NP within the clause: clitic doubling (see (4)) and clitic left dislocation (see (5)). In the former case, the coreferential NP follows the V while in the latter the coreferential NP is left dislocated.

(4) cl.obj_j V NP_j (= clitic doubling)

to_j ὀάvasa to vivlíoj
 3.SG.ACC.N read:PFV.PST:1.SG DEF:ACC.SG.N book:ACC.SG.N
 ‘I read the book’

(5) NP_j cl.obj_j V (= clitic left dislocation)

to vivlíoj to_j ὀάvasa
 DEF:ACC.SG.N book:ACC.SG.N 3.SG.ACC.N read:PFV.PST:1.SG
 ‘I read the book’

The object NP occurs with clitic doubling if its referent is prominent in the ‘common ground’ (Anagnostopoulou 1994). It represents given information and has ‘out-of-focus’ status in the utterance, i.e. it is part of the information structural background. On the contrary, clitic left dislocation requires a functional motivation for preposing the object. Diverse contextual conditions can license such a preposing, e.g. contrastive topicalization (cf. Iatridou 1995), anaphoric relations with respect to the preceding context (s. Alexopoulou & Kolliakou 2002), etc. Both constructions share the property that they generally do not occur in contexts that license object focus (cf. Verhoeven 2008b)

Furthermore, following Stavrou 1984 and Alexiadou & Anagnostopoulou 1997, co-indexed object clitics do not occur in relative clauses with an extracted definite object introduced by the relative pronoun *pu*, as shown in (6).

(6) Relative clause with extracted object

<i>*Simpaθó</i>	<i>ton</i>	<i>ánθropo</i>	<i>pu</i>
like:1.SG	DEF:ACC.SG.M	person:ACC.SG.M	that
<i>ton</i>	<i>sinándise</i>	<i>o</i>	<i>pétros</i>
3.SG:ACC.M	meet:PFV.PST:3.SG	DEF:NOM.SG.M	Peter:NOM.SG.M

(int.) ‘I like the man that Peter met’ (Anagnostopoulou 1999:77)

2. Corpus data

2.1 Decoding

The naturalistic data base investigated in this paper is the *Hellenic National Corpus (HNC)*, developed by the Institute of Language and Speech Processing (ILSP). It is a large-size online corpus, currently comprising 47.000.000 words. *HNC* contains written discourse from the following sources: books (9,41%), internet (0,31%), newspapers (61,30%), magazines (5,90%), and miscellaneous (23,08%).

In order to investigate the interaction of object clitics with EO constructions, a dataset containing all occurrences of some representative verbs in *HNC* was created. Eight canonical transitive verbs were selected in order to estimate a baseline for the occurrence of clitics in a set of verbs that represent the typical alignment pattern agent/subject & patient/object. Furthermore, eight EO verbs which corresponded to the two basic categories of EO verbs were selected: four non-agentive verbs and four labile verbs. The sample verbs of our data set are given in (7).

(7) (a) canonical transitive verbs
spróχno ‘push’, *ðiorθóno* ‘correct, repair, fix’,
vlápto ‘damage’, *proskaló* ‘invite’,
klotsáo ‘kick’, *ðjóχno* ‘turn out/away, chase, kick out’,

- klévo* ‘steal, rob’, *χτίζο* ‘build, construct’
- (b) non-agentive EO verbs
aréso ‘please’, *enḗiaféro* ‘interest, concern’,
yoitévo ‘captivate, charm’, *provlímátízo* ‘puzzle’
- (c) labile EO verbs
enoχλό ‘bother’, *kse yeláo* ‘fiddle’,
eksoryízo ‘enrage’, *tromázo* ‘frighten’

In order to exclude variation that is induced by the different categories of personal and temporal deixis, our data set was restricted to tokens that involve the above verbs in the third person singular of the indicative past forms (perfective and imperfective).

The hypotheses tested relate to transitive verbs with two arguments, hence all occurrences of the above verbs without an object (see (8) for instance) were characterized as ‘non-valid’ and are excluded from consideration for the measurements below.

- (8) *I* *motosikléta* *árese.*
 DEF:NOM.SG.F motorbike:NOM.SG.F please:PFV.PST:3.SG
 ‘The motorbike pleased (People liked the motorbike).’

For each occurrence of a verb, the realization of the object was identified according to the following parameters:

- (a) lexical or emphatic pronominal vs. clitical vs. both;
 (b) NP vs. PP;
 (c) definite vs. indefinite;
 (d) preverbal vs. postverbal.

Information about the definiteness of the NPs is necessary since clitic left dislocation and clitic doubling differ as to their compatibility with definite NPs: while clitic left dislocation is compatible with indefinite NPs, clitic doubling is exclusively compatible with definite NPs. Finally, cases with object extraction in relativization using the relative pronoun *pu* were identified.

2.2 Results

Table 1 gives an overview of the numerical results for the object constructions reported in this paper. The first line indicates the total of verb-object constructions identified in the corpus for the different verb groups. The second line (CL+V) gives the occurrences of the verbs with an object clitic but without a lexically realized object NP. The third line (V+arg) indicates the total of those cases where the verb is followed by a VP internal argument, either an object NP or an oblique argument PP. These numbers include cases with definite and indefinite objects as well as cases with and without the simultaneous presence of an object clitic, i.e. it includes

cases of clitic doubling. The following three lines single out those cases where the postposed NP is definite. The first of these three lines (V+arg_{def}) gives the total of the cases while the following two lines indicate the amount of postposed object NPs without clitic doubling (see ‘-CL’) and those with clitic doubling (see ‘+CL’). The next section of Table 1 (arg+V) features the cases of left dislocation of the object NP or PP, again including definite and indefinite NPs. Again, the numbers are given in more detail for the definite left dislocated NPs separating simple left dislocation (see ‘-CL’) and clitic left dislocation (see ‘+CL’). Finally, the last section of Table 1 (rel. Obj.) indicates the number of occurrences of relativized objects using the relative pronoun *pu*. Again the numbers for cases with a definite object are presented in more detail.

Table 1. Object constructions with some verb groups in HNC

	Non-ag. V.		Labile V.		Canonical V.		Sum	
	n	%	n	%	n	%	n	%
Total	1646		718		1230		3594	
CL+V	1268		358		362		1988	
V+arg	244		347		741		1332	
V+arg _{def}	108		285		601		994	
-CL	96	88,9	285	100,0	593	98,7	974	98,0
+CL	12	11,1	0	0,0	8	1,3	20	2,0
arg+V	127		13		78		218	
arg _{def} +V	77		11		66		154	
-CL	4	5,2	4	36,4	53	80,3	61	39,6
+CL	73	94,8	7	63,6	13	19,7	93	60,4
rel. Obj	7		0		49		56	
rel. Obj _{def}	7		0		45		52	
-CL	0	0,0	0		45	100,0	45	86,5
+CL	7	100,0	0		0	0,0	7	13,5

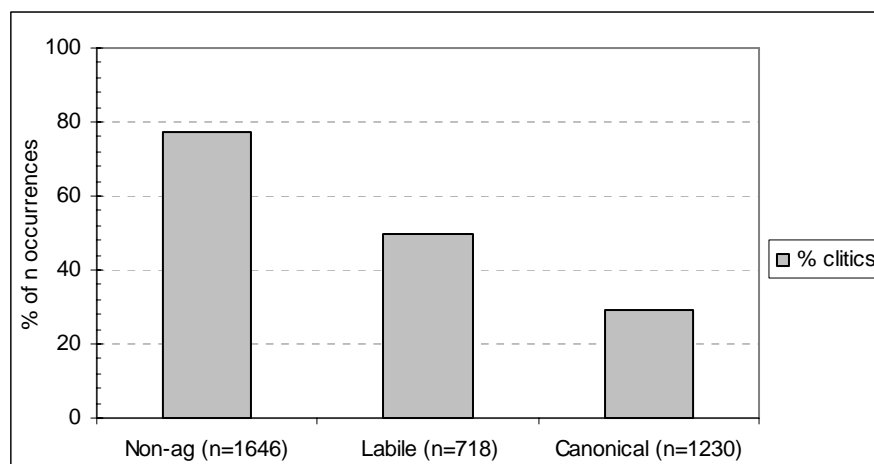
The results in Table 1 are discussed for each part in the following sections. Section 3 discusses the asymmetry between pronominal and lexical realization of objects and its significance for the distinction between the verb groups investigated. Section 4 deals with clitic left dislocation and section 5 with clitic doubling analyzing the numerical differences between the verb groups in our data set. Finally, section 6 sheds light on the occurrence of clitic object pronouns in relative clauses.

3. Pronominal vs. lexical realization of objects

First, we are going to analyze the coding of the objects in our corpus as regards their realization as a lexical NP vs. a pronoun. Following Gundel et al. (1993), an unstressed pronoun is used in discourse when the referent is at the center of attention; the lexical realization of the referent may correspond to a variety of information statuses, from brand new referents (that are typically encoded through indefinite NPs), uniquely identifiable referents (typically encoded through definite NPs), and moreover activated referents (typically encoded through demonstrative NPs). Thus, the proportion of pronominal realizations in discourse indicates the preference for particular participants to occupy the center of attention, hence being the current discourse topic.

On this background, we consider the n of pronominal object realizations (see line CL+V of Table 1) for each verb group and calculate their percentages with respect to the total occurrences of object constructions (see first line in Table 1). Note that the difference between the values given in line 1 and line 2 of Table 1 does not exclusively refer to occurrences of ‘bare’ lexical objects but includes the instances of clitic left dislocation, clitic doubling and pronominal clitics in relative clause constructions with an extracted object. These constructions imply different pragmatic conditions for EOs, that have in common the lexical realization of the referent (the distribution of the latter constructions is reported in sections 4 to 6). The proportion of (bare) object clitics with canonical transitive verbs gives a baseline for the evaluation of the proportion of (bare) object clitics with EO verbs. The results are visualized in Figure 1. Non-agentive EO verbs occur more frequently with object clitics than the labile EO verbs and these occur more frequently with object clitics than the canonical transitive verbs in our data set.

Figure 1. Pronominal realization of object in HNC



Given the pragmatics of pronominal realization of an argument, namely that its referent is the current discourse topic, these results mirror the generally claimed prominence of experiencers in experiential situations (e.g. Haspelmath 2001, Bickel 2004), which also applies to object experiencers and distinguishes them from canonical objects. Thus, the fact that EOs are more often pronominally coded than canonical direct objects reflects the fact that they occur more naturally at the center of attention than canonical direct objects.

The intermediate position of the labile EO verbs in Table 1 can be attributed to their potential of conveying an agentive and a non-agentive reading (cf. section 1.1). In their agentive reading, the argument structure resembles that of canonical transitive verbs, the subject stimulus being agent-like and the EO being patient-like. Thus, it can be assumed that part of the object tokens of these verbs in the corpus behave like canonical direct objects.

4. Clitic left dislocation

In order to estimate whether there is an impact of agentivity on the occurrence of clitics with EOs, we look now at the constructions of clitic left dislocation in our corpus. As reported in section 1.2, this construction requires a pragmatic motivation that licenses left dislocation of the object NP, e.g. contrastive topicalization or a salient anaphoric relation to a referent in the preceding context. Example (9) from our corpus involves clitic left dislocation of an object NP that has a clear anaphoric relation to the pretext, as the demonstrative suggests.

- (9) *To bagalós aftó o kóstas*
 DEF:ACC.SG.N bungalow this:ACC.SG.N DEF:NOM.SG.M Kostas:NOM.SG.M
to éχtise me óanio.
 3.SG:ACC.N build:PFV.PST.3.SG with credit:ACC.SG.N
 ‘Kostas built this bungalow with credit.’

However, not every preverbal object NP is co-indexed with a clitic. Clitics do not occur, when the preverbal object is part of a narrow focus domain or in some special cases of topicalization, which are frequent in written discourse (see Alexopoulou 1999:45). The latter case is illustrated in (10) from our corpus. Such sentences occur in particular when both the object NP and the verb are part of the presupposed information.

- (10) *Ton prothipuryó tis alvaniás*
 DEF:ACC.SG.M prime.minister:ACC.SG.M DEF:GEN.SG.F Albania:GEN.SG.F
proskálese s-tis ípa i
 invite:PFV.PST.3.SG LOC-DEF:ACC.SG.F U.S.A. DEF:NOM.SG.F

amerikanída *ipuryós* *eksoterikón* ...

American:ACC.SG.F minister:NOM.SG.M foreign:GEN.PL.N

‘The American minister of foreign affairs invited the prime minister of Albania in the U.S.A. (...)’

However, contrary to canonical transitive verbs, which are illustrated in the above examples, the use of clitics with preverbal object NPs of non-agentive EO verbs is contextually unrestricted, i.e. clitic left dislocation with non-agentive EO verb is desemantized. Consider example (11) where the left dislocated object is intended to be in the focus. In (11a) featuring a non-agentive reading of a EO verb, a co-indexed clitic may occur under focus interpretation of the preposed object while this is out in (11b) with the agentive reading of the same EO verb and the non-experiential verb *vlápto* ‘damage’ (see Verhoeven 2008b).

- (11) {*To* *korítsi*}_{FOC}
 DEF:ACC.SG.N girl:ACC.SG.N
- a. (*to*) *enoχλί* *o* *θόριβος*.
 (3.SG:ACC.N) bother:3.SG DEF:NOM.SG.M noise:NOM.SG.M
 ‘The noise bothers {the girl}_{FOC}.’
- b. (**to*) *enoχλί*_{agentive} / *vlápti*
 (3.SG:ACC.N) bother:3.SG / damage:3.SG
 o *θόδωρος*.
 DEF:NOM.SG.M Thodoros:NOM.SG.M
 ‘Thodoros bothers / damages {the girl}_{FOC}.’

Hence, we expected to find a considerably higher number of instances of preverbal objects with a co-indexed clitic for this verb group than for the other verb groups. Note however, that contextual unrestrictedness of clitic left dislocation with non-agentive EO verbs does not mean that preverbal objects of such verbs obligatorily occur with a co-indexed clitic. Our corpus contains four instances of preverbal object NPs without clitic (see Table 1, arg_{def}+V). Some of them would be rejected as non-grammatical by native speakers’ intuitions, as for instance example (12).

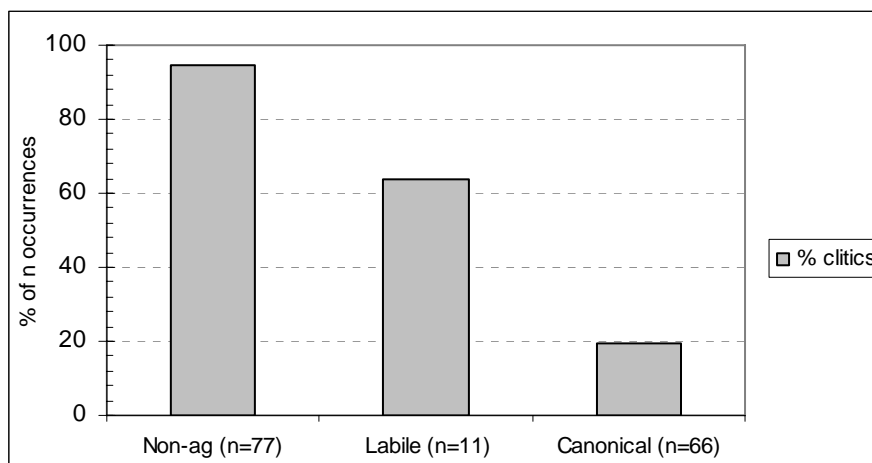
- (12) *Eséna* *den* *endjéfere* *poté* *o*
 2.SG:ACC NEG interest:PST:3.SG never DEF:NOM.SG.M
 eaftós *su* *pará* *móno*
 self:NOM.SG.M 2.SG:GEN but only
 i *omorfiá* *su* ...
 DEF:NOM.SG.F beauty:NOM.SG.F 2.SG:GEN
 ‘You were never interested in yourself but only in your beauty (...)’

Other examples (see (13)) are instances of the topicalizing construction as introduced above in example (10).

- (13) *Tóte ti ðítkisi tis ...*
 then DEF:ACC.SG.F administration:ACC.SG.F DEF:GEN.SG.F
trápezas provlimátize i astáθia ...
 bank:GEN.SG.F puzzle:IPFV.PST:3.SG DEF:NOM.SG.F instability:NOM.SG.F
 ‘At that time, the administration of the bank was puzzled by the instability (...)’

Figure 2 visualizes the proportion of sentences with a preverbal object NP (see $arg_{def} + V$ in Table 1) which are accompanied by a pronominal clitic. Clitic left dislocation is considerably more frequent in our corpus with non-agentive EO verbs than with the other verb groups. Furthermore, clitic left dislocation is more frequent with labile EO verbs than with canonical transitive verbs, since the labile EO verbs also display a non-agentive reading next to their agentive reading. By hypothesis, in this reading they display the properties observed for non-agentive verbs.

Figure 2. Clitic left dislocation of arg_{def} with some verb groups in HNC



In conclusion, corpus frequencies of clitic left dislocation with non-agentive EO verbs confirm the proposed analysis and prediction and show that there is a strong preference for clitic left dislocation with non-agentive EO verbs. The differences in the occurrence of object clitics with left dislocated definite NPs cannot only be explained by the fact that experiencers (in contrast to stimuli) tend to be prominent background information, but additionally by the desemanticization of clitic left dislocation with non-agentive EO verbs.

5. Clitic doubling

Clitic doubling of a postverbal object requires that the respective referent is contextually given and prominent at the current point in discourse (see section 1.2). A characteristic

example from our data base is given in (14), in which the prominent object is realized through a personal pronoun.

- (14) *Eftixós* *to* *ἰορθοσε* *αὐτό*
 fortunately 3.SG.ACC.N correct:PFV.PST.3.SG 3.SG.ACC.N
ο *κίριος* *ἰπουργός.*
 DEF:NOM.SG.M mister:NOM.SG.M minister:NOM.SG.M
 ‘Fortunately, Mr. Minister corrected that.’

Prominence in context is a necessary but not a sufficient condition for clitic doubling, i.e. sentences with a given prominent postverbal object NP and without clitic doubling are still possible in Modern Greek, as exemplified in (15), which also involves an object NP that is highly activated as suggested by the demonstrative determiner.

- (15) *θα* *κline* *τα* *στόματα* *αν*
 FUT close:IPFV.PST:3.SG DEF:ACC.PL.N mouth:ACC.PL.N if
ἐδιοχνε *αὐτό* *το* *γίneo*
 turn.out:IPFV.PST:3.SG 3.SG.ACC.N DEF:ACC.SG.N woman:ACC.SG.N
από *το* *σπίτι* *tis.*
 from DEF:ACC.SG.N house:ACC.SG.N 3.SG:GEN.F
 ‘She would silence the(ir) tongues if she turned this woman out of her house.’

As concerns non-agentive EO verbs, the discourse conditions for clitic doubling differ again from those illustrated for canonical transitive verbs. With non-agentive EO verbs, clitic doubling also occurs when the object referent is inferable from the context, i.e. accessible but not explicitly mentioned information in the sense of Lambrecht 1994 (see Anagnostopoulou 1999, sect. 2.3., Verhoeven 2008b and examples there). Hence, the set of contexts which license clitic doubling with non-agentive EO verbs is a superset of the contexts that license the same construction with canonical transitive verbs. Moreover, Anagnostopoulou (1999) proposes that clitic doubling is obligatory with non-agentive EO verbs, i.e. it occurs in all contexts. This account allows for the prediction that all instances of non-agentive EO verbs with a postverbal definite object NP will display clitic doubling. However, this prediction is not borne out, as illustrated in examples (16) and (17).

- (16) *Ἰκσερα* *πολά* *κι* *αὐτό*
 know:PST:1.SG much:ACC.PL.N and 3.SG.ACC.N
ενοχλούσε *tus* *άλus.*
 bother:IPFV.PST:3.SG DEF:ACC.PL.M other:PL.ACC.M
 ‘I knew a lot and this bothered the others.’

- (17) *na* *φτιάksi* *puτίga* ... *όpos* *άρεse*
 to make:PFV:3.SG pudding:ACC.SG.F as like:PST:3.SG

tu *patéra.*

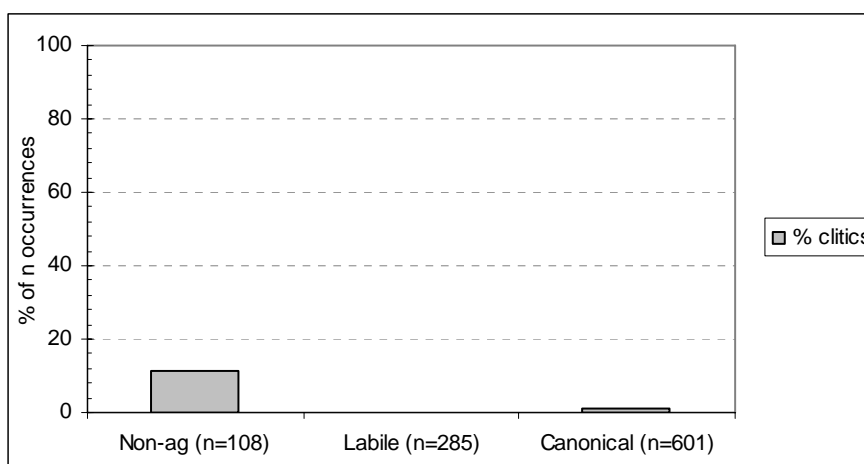
DEF:GEN.SG.M father:GEN.SG.M

‘(...) to make a pudding (...) as the father liked it.’

Even if clitic doubling is obviously not obligatory, we expect it to be more frequent with non-agentive EO verbs than with the other verb groups due to the less restricted discourse conditions applying to clitic doubling with non-agentive EO verbs, as explained above. Furthermore, clitic doubling is expected to be more frequent with labile EO verbs than with canonical transitive verbs, since the labile EO verbs also display a non-agentive reading next to their agentive reading.

However, as Figure 3 shows, the results are less clear in our corpus. Figure 3 visualizes the proportion of clauses with a postverbal argument (see $V+arg_{def}$ in Table 1) which involve clitic doubling. While clitic doubling is more frequent with non-agentive EO verbs (11,1% of all $V+arg_{def}$ cases) than with the other verb groups, the expected difference between the labile EO verbs (0,0% of all $V+arg_{def}$ cases) and the canonical transitive verbs (1,3% of all $V+arg_{def}$ cases) cannot be confirmed. This result might be due to the overall small number of tokens of clitic doubling in the corpus. Note that clitic doubling is a rather seldom phenomenon in general. In our corpus, the overall frequency of clitic doubling in relation to the total of verb occurrences is 0,56%. The corresponding percentage of clitic left dislocation is 2,73%. Crucially, this data clearly falsifies the analysis proposed in Anagnostopoulou 1999 (see section 1, esp. example (3b)): clitic doubling with EOs of non-agentive verbs is in no way obligatory but even relatively infrequent in discourse.

Figure 3. Clitic doubling of arg_{def} with some verb groups in HNC



6. Relative clauses and object clitics

Finally, corpus evidence for the relative clause construction with object extraction and a co-indexed object clitic will be discussed. In this construction, the extracted object is definite and

the relative pronoun *pu* is not case-marked. Canonical transitive verbs are not accompanied by an object clitic in this construction (see (18)), cf. Anagnostopoulou (1999:76ff).

- (18) *tis ikónes pu éklepse apó ekklisíes*
 DEF:ACC.PL.F icon:ACC.PL.F that steal:PFV.PST:3.SG from church:ACC.PL.F
 ‘the icons that he stole from churches’

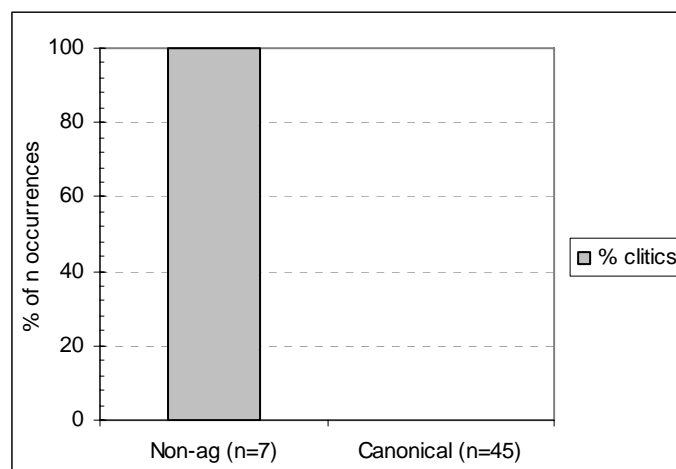
Contrary to canonical transitive verbs and agentive EO verbs, non-agentive EO verbs require a co-indexed clitic with a relativized (E)O. Obligatoriness of a clitic with relativized EOs does not only apply to genitive experiencers (cf. (1)) but also to accusative experiencers (cf. (2)). Our corpus provides only few instances of object extraction with non-agentive EO verbs ($n=7$), but all examples encountered display a co-indexed clitic as exemplified in (19).

- (19) *I jajá, pu tis árese*
 DEF:NOM.SG.F grandmother:NOM.SG.F that 3.SG:GEN.F like:PST:3.SG
polí to kokoretsi, píjene káthe
 much DEF:ACC.SG.N kokoretsi:ACC.SG.N go:IPFV.PST:3.SG every
tóso s-to ma yazí.
 such:ACC.SG.N LOC-DEF:ACC.SG.N shop:ACC.SG.N

‘The grandmother that liked so much the kokoretsi, went to the shop very often.’

The proportion of relativized objects which are cross-referenced by a co-indexed clitic (see rel. Obj_{def} in Table 1) is visualized in Figure 4. This result clearly confirms the above characterization of definite object extraction in a relative clause construction. With non-agentive EO verbs, all instances of a definite extracted object show the clitic following the relative pronoun *pu*. In contrast, with canonical transitive verbs no instance of a definite extracted object in construction with a co-indexed clitic occurs. Note that the corpus did not possess tokens of relative clauses with labile EO verbs.

Figure 4. Object clitics in relative clauses with extracted Obj_{def} in HNC



7. Summary

The corpus study presented in this paper brought rich evidence for the following hierarchy of object NPs with respect to their occurrence in several types of topicalizing constructions:

- (20) object NPs of:
non-agentive EO verbs > labile EO verbs > canonical transitive verbs

For reasons independent of the corpus study, we argued that the empirical asymmetry in (20) reflects a binary distinction between agentive and non-agentive readings of verbs. This binary distinction corresponds to the two poles of the hierarchy, while so-called labile EO verbs occupy an intermediate position due to their property to occur with either reading in different contexts.

We have shown that objects of non-agentive EO verbs are more frequently pronominally realized than objects of labile EO verbs and that these are more frequently pronominally realized than objects of canonical transitive verbs. This finding reflects the fact that objects of non-agentive EO verbs are more likely to serve as discourse topics, being thus at the center of attention at the moment of the utterance.

Furthermore, we observed that clitic left dislocation is much more frequent with non-agentive EO verbs than with labile EO verbs and canonical transitive verbs, whereby labile verbs again occupy an intermediate position. Non-agentive EO verbs do occur in left dislocation without clitic object realization but this construction is quite marginal in discourse. These results support previous findings from intuition or elicitation related to EO verbs (Anagnostopoulou 1999, Verhoeven 2008b). We claimed that this empirical asymmetry may be related to two factors. On the one hand, experiencers, in contrast to stimuli, tend to be prominent background information. This is shown by the obtained asymmetry in the occurrence of pronominal realizations. This information structural asymmetry may account for the data pattern of clitic left dislocation as well. On the other hand, clitic left-dislocation with experiencers in non-agentive constructions is desemanticized and no longer bound to pragmatic licensing.

The occurrence of co-indexed clitics in relative clauses with object extraction also confirms expectations based on previous findings. While definite objects of non-agentive EO verbs (genitive and accusative marked) always occur with a co-indexed clitic in the relative clause, no instance of a construction with a co-indexed object clitic has been encountered for canonical transitive verbs.

The most surprising finding in the corpus is related to clitic doubling. The proportions in our data set gave some evidence (however weak due to the low *n* of tokens) for the

asymmetry between non-agentive EO verbs against canonical transitive verbs as concerns the occurrence of clitic doubling. However, the most important conclusions from this part of the study is that (a) clitic doubling is a very rare phenomenon in written discourse and (b) it is a largely optional phenomenon with non-agentive EO verbs (in contrast to claims in the previous literature that it is obligatory for this verb group).

8. References

- Alexiadou A. & E. Anagnostopoulou (1997). "Clitics in restrictive relatives: an antisymmetric account". In *Studies in Greek Linguistics* 17, 304-317.
- Alexopoulou Th. (1999). *The syntax of discourse functions in Greek: a non-configurational approach*. PhD Dissertation, University of Edinburgh.
- Alexopoulou Th. & D. Kolliakou (2002). "On Linkhood, Topicalization, and Clitic Left Dislocation". In *Journal of Linguistics* 38.2.
- Anagnostopoulou E. (1994). *Clitic dependencies in Modern Greek*. PhD Dissertation, University of Salzburg.
- Anagnostopoulou E. (1999). "On experiencers". In A. Alexiadou and G. Horrocks and M. Stavrou (eds), *Studies in Greek syntax*. Dordrecht: Kluwer Academic Publishers, 67-93.
- Bickel B. (2004). "The syntax of experiencers in the Himalayas". In P. Bhaskararao and K. V. Subbarao (eds), *Non-nominative subjects*, vol. 1, Amsterdam: Benjamins, 77-111.
- Gundel J. K., N. Hedberg & R. Zacharski (1993). "Cognitive status and the form of referring expression in discourse". In *Language* 69:274-307.
- Haspelmath M. (2001). "Non-canonical marking of core arguments in European languages". In Aikhenvald, A.Y., R.M.W. Dixon & M. Onishi (eds), *Non-canonical Marking of Subjects and Objects*. Amsterdam, Philadelphia: John Benjamins, 53-83.
- Iatridou S. (1995), "Clitics and island effects". In *Penn Working Papers in Linguistics*, 2:11-31.
- Kordoni V. (1999). "Lexical semantics and linking in HPSG: the case of psych verb constructions". *Arbeitspapiere des SFB 340*, 494-527.
- Lambrecht K. (1994). *Information Structure and Sentence Form: Topic, Focus, and the Mental Representation of Discourse Referents*. Cambridge: Cambridge University Press.
- Στάυρου Μ. (1984). "Η Κλιτική Αντωνυμία στις Περιοριστικές Αναφορικές Προτάσεις με εξάρτηση Άμεσου Αντικειμένου που εισάγονται με 'που'". In *Studies in Greek Linguistics* 2, 121-136.
- Verhoeven E. (2008a). "(Non-)canonical marking of experiencer objects: A typological comparison of Chinese, Korean, Turkish, and Modern Greek". In *Language Typology and Universals* 61/1, 81-92.
- Verhoeven E. (2008b). "Grammaticalization in constructions: Clitic doubling with experiencers in Modern Greek". In Verhoeven, E., Skopeteas, S., Shin, Y.-M., Nishina, Y. & Helmbrecht, J. (eds.), *Studies on Grammaticalization*. Berlin: de Gruyter; 251-281.