## On the interpretation of null indefinite objects in Greek

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#### Abstract:

In this paper, we examine the properties of a novel kind of nominal ellipsis in Greek, which we call indefinite argument drop (IAD), concentrating on its manifestation in object positions. We argue that syntactically these null objects are present as *pro*, and we show that semantically they are licensed only by weak DP antecedents (in the sense of Milsark 1974). We compare IAD with NP-internal ellipsis, as attested also in English among many other languages, and show that IAD has distinct syntactic and semantic properties. Finally, we compare our account with a number of proposals regarding null objects in the literature, and show that IAD cannot be reduced to any of these.

# 1 Indefinite argument drop

#### **1.1** The phenomenon

Although Greek is like English in requiring the presence of an overt object with transitive verbs in general, in certain circumstances, this object may be omitted. This is representative of a more general phenomenon which allows the omission of any argument phrase, though we will not discuss this for non-object positions here (see Giannakidou & Merchant 1996 for some relevant data). A prerequisite for this omission is that there be an indefinite discourse antecedent, i.e., that there be an antecedent which is a weak DP (as in Milsark 1974). We will refer to this phenomenon as indefinite argument drop (IAD), where this descriptive label should be understood atheoretically.

IAD with objects is illustrated in the question-answer pairs in (1).

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(1)	Q: Efere o Andreas	merika	vivlia?	'Did Andreas bring	several books?'
		kapja			some
		liga			a few
		deka			ten
		tulaxiston	tria		at least three
		parapano aj	po tria		more than three
		tipota			any
		Ø			Ø

A: Ne, (\*ta) efere e.

yes, (them) brought.3sg

'Yes, he brought {several / some / a few / ten / at least three / more than three / some / Ø} books.'

Two things are noteworthy about the pattern in  $(1)^1$ . First, the answer is understood in direct relation to the quantity specified in the question; thus, if the answer is used in response to the question abbreviated in the fourth line of the question above (...*deka* 'ten'...) for example, the answer is understood unambiguously as meaning 'Yes, he brought ten books'. Second, the definite clitic pronoun *ta* is ungrammatical in the response. This is expected, since clitic pronouns in Greek can only be linked to referential (strong) DPs (see Anagnostopoulou & Giannakidou 1995); here, the question introduces no such antecedent.

We find the opposite pattern of grammaticality in the response to a question with a strong DP:

(2) Q: Efere o Andreas	ola ta	vivlia?	'Did Andreas bring	all the books?'
	kai ta dio			both
	ta perisoter	a		most
	ta			the
	kathe	vivlio		every book
	to kathe	vivlio		each book

A: Ne, \*(ta) efere. yes, (them) brought.3sg 'Yes, he brought them'

Here, the clitic is expected and required. Since the antecedent DPs in the question are strong quantifiers (and in some cases *principal filters*, e.g. *ola*, *kathe*, *ta*, *to kathe*, *ke ta dio*), the clitic pronoun will refer to the minimal witness set denoted by them. Hence

<sup>&</sup>lt;sup>1</sup> Greek is also a *pro*-drop language allowing referential null subjects (see the papers in Jaeggli & Safir 1991, and Condoravdi 1987 for Greek in particular). We use a simple transitive in the examples for simplicity, though the patterns can be replicated with compound tenses as well. It should be noted that Greek has and uses words for *yes* ('ne') and *no* ('oxi'), and thus differs from languages like Chinese, where the repetition of the verb is used in responses to polar questions. That IAD is not limited to question-answer pairs is also illustrated in the text below. See Doron 1990 for examination of null objects in a number of disparate environments.

the preservation of quantificational force in the answer is a byproduct of the maximality condition of the pronominal clitic.

#### 1.2 Interpreting IAD: quantificational matching and disjoint reference

What could account for the contrast between (1) and (2)? The idea we will pursue is that Greek possesses a null indefinite pronominal, which we will abbreviate *pro*, and which has a semantics similar to the English indefinite pronominal 'one', with one important qualification which we will see below. Here *pro* should be understood strictly as an abbreviation for a null DP (e) with the featural specification [+pronominal], and should not be confused with the <u>definite</u> *pro* distinguished in the literature on null subjects (which is referential or generic)<sup>2</sup>.

The interesting puzzle posed by this null indefinite is primarily its interpretation. Crucially, this *pro* is interpreted with the same quantificational force and descriptive content as its indefinite antecedent; we will call this the *quantificational matching* effect.

Now consider a sentence like (3). Within the Lewis-Kamp-Heim approach to indefinites, one might attempt to capture the quantificational matching effect along the lines of (4) (where X is some set).

- I Theodora mazepse [deka fraules] kai o Andreas poulise pro.
   'Theodora picked [ten strawberries] and Andreas sold [ten strawberries]'
- (4)  $\exists X(\text{strawberry}'(X) \& |X| = 10)[\text{pick}'(t,X) \& \text{sell}'(a,X)]$

But the formula in (4) gives the wrong truth conditions for (3) it that it equates the set of strawberries Theodora picked with those Andreas sold. In fact, (3) is true just in case the ten strawberries which Andreas sold are not the same as the ten strawberries that Theodora picked, i.e., if the fraules = A and prol = B, then A and B are disjoint sets ( $\neg[A \subseteq B] \land \neg[B \subseteq A]$ ). The disjoint reference effect is observed in generic sentences too, as in (5).

(5) I Theodora mazevi fraules ke o Andreas pulai *pro*.'Theodora picks strawberries and Andreas sells [them]'

In this, Greek differs from English, which allows the pronoun *them* to be coreferential with the generic bare plural (cf. Carlson 1977).

On the other hand, the effect is not detectable in polar question-answer pairs because polar questions are nonveridical (see Giannakidou, in prep.). A question does not in fact

- 'Did ten/some/several students come?'
- A: Ne, *pro* irthan.
  - 'Yes, [ten/some/several students] came'
- (ii) Kapji/meriki fitites parakalouthisan to sinedrio kai episis *pro* apiggelan poiimata tous.

<sup>&</sup>lt;sup>2</sup> In fact, the indefinite *pro* can occur in subject positions as well, as in (i) and (ii):

<sup>(</sup>i) Q: Irthan deka/kapji/meriki fitites?

<sup>&#</sup>x27;Some/several students attended the conference and [some/several students] recited their poems as well'

### Giannakidou and Merchant

entail the existence of referents for any indefinites it contains (hence the oddness of *Did* you buy [ten books]<sub>i</sub>? #No, they<sub>i</sub> are still at the store). Because the conjunction of unembedded sentences is veridical, the clitic pronoun can be used in these cases although it would be illicit in question-answer pairings. Use of the clitic pronoun in place of the null object gives exactly the meaning represented in (4), where co-indexation indicates co-reference:

(6) I Theodora mazepse [deka fraules], kai o Andreas tis, poulise.
 'Theodora picked ten strawberries and Andreas sold them'

Note that (4) also accurately represents the meaning of the corresponding English translation, which contains a pronoun as well.

We suggest that the interpretation of the null indefinite object is derived by recycling the descriptive content of its antecedent, similar in spirit to what has been proposed for the interpretation of English *one* (see Nerbonne et al. 1990 and Merchant 1994 for different implementations of this idea). Differing from the case of *one*, however, we must understand 'descriptive content' in the case for the null indefinite to include the content of the adjectival determiners in (1). Here we follow a number of researchers (see the papers in Lappin 1988 and Olsen et al. 1991 among others) in assuming that weak determiners (the cardinals, *many*, etc.) are adjectival character of weak determiners can be seen in (7), where the noun phrase *deka fraules* 'ten strawberries' in the first conjunct of (3) contributes a (plural) variable and two predicative conditions on it.

#### (7) $\exists X(\text{strawberry}'(X) \& \text{ten}'(X))[\text{pick}'(t,X)]$

The second predicative condition ten'(X) is a cardinality condition and holds iff |X| = 10. In other words, the present data provide evidence for the view of weak determiners as in essence intersective adjectives (like *red*, *tall*, etc.). (See for example Kamp & Reyle 1993, esp. p.327f. for essentially the same conclusion). Strong DPs, on the other hand, are true quantifiers (i.e., generalized quantifiers) and hence cannot be analyzed as predicative conditions.

The correct meaning for (3) is that given in (8), where the null indefinite has introduced a discourse referent, i.e., a new set of strawberries Y. This interpretation of the null pronoun can thus be viewed as a kind of pronoun of laziness (cf. Geach 1962, Karttunen 1969).

#### (8) $\exists X(strawberry'(X) \& ten'(X))[pick'(t,X)] \& \exists Y(strawberry'(Y) \& ten'(Y))[sell'(a,Y)]$

We believe that the disjoint reference effect is essentially pragmatic in nature. It seems that the most likely account for the presence of these effects is in term of restrictions on bound vs. nonbound uses of pronouns (cf. Reinhart 1983). The pragmatic nature of the phenomenon is revealed in the following two cases. First, disjoint reference can be voided in certain contexts. For example, (3) can have a continuation like the one provided by the second sentence in (9) without yielding a contradiction:

- (9) I Theodora mazepse [fraules] kai o Andreas poulise *pro*. Stin pragmatikotita, o Andreas poulise tis fraules pou mazepse i Theodora.
  - 'Theodora picked strawberries and Andreas sold [some]. In fact, Andreas sold the strawberries that Theodora picked.'

The lack of contradiction suggests that disjoint reference has the force of an implicature and is not due to the semantics of the null indefinite.

Second, disjoint reference may be affected by aspect. In the examples we have been examining both conjuncts bore the same aspectual marking (both perfective or both imperfective in episodic and generic sentences respectively). If aspect varies, as in (10) where the first conjunct is imperfective and the second perfective, the null indefinite and its antecedent may in fact corefer:

(10) I Theodora poulouse fraules kai o Andreas agorase *pro*.

'Theodora was selling strawberries and Andreas bought [some]'

While analyzing the role of aspect is beyond the scope of this paper, it is important to recognize its involvement. If disjoint reference were a semantic requirement on the elided indefinite we would expect it to be immune to aspectual choices.

Before closing this section, some brief comments on the similarity of the Greek null indefinite and the overt English pronominal *one* are in order. Like the *pro* of IAD, *one* is anaphorically dependent for its descriptive content on an indefinite antecedent. Also like IAD *pro*, *one* introduces a discourse referent. These two properties are illustrated in the 'paycheck' sentences in (11) (grammaticality judgments given for the paycheck reading only) and the sentences in (12), respectively (taken from Merchant 1994, 1996).

- (11) a. A family who keeps <u>their car</u> in a garage is wiser than a family who parks <u>it/\*one</u> on the street.
  - b. A family who leases <u>a car</u> is wiser than a family who buys <u>one/\*it</u>.
- (12) a. Max doesn't have <u>a pencil</u>, but Anne has <u>one/\*it</u>.
  - b. Max saw <u>a cat</u>. Anne saw <u>one</u>, too. (where Anne need not have seen the same cat Max saw)

If IAD *pro* could be assimilated to *one*, we could presumably apply the same interpretative semantic account to this *pro* as has been developed for *one*. This approach falters immediately, however, on the quantificational matching effect. While *one* picks up its descriptive content from an antecedent, it does not get this antecedent's quantificational force. Instead, *one* itself supplies the cardinality of its interpretation. A second problem is the fact that the restriction to indefinite antecedents is actually quite restricted: in most contexts, the descriptive content of a strong quantificational DP can provide a suitable antecedent, as in (13).

(13) Max saw <u>all/most of your cats</u>, but Anne didn't see (even) <u>one</u>.

For these reasons, it seems clear that an approach assimilating IAD *pro* to English one raises more questions than it answers.

#### 1.3 The syntax of indefinite argument drop

Following much recent work in ellipsis resolution (see Lappin 1996a for an overview), we propose that the antecedent expression is copied in for *pro* at  $LF^3$ . This preserves the insight into the parallel nature of the anaphoric relation the null indefinite bears to its antecedent, and captures the dependency directly. The LF structure for (3) will be that in (14) (where boldface marks LF-copied material).

(14) I Theodora mazepse [deka fraules] kai o Andreas poulise [deka fraules].

Generating the required interpretation for this is straightforward, and gives us the semantics in (8) above. This is parallel to the interpretation of VP-ellipsis in English, as in (15a), which, under one interpretation, has the LF in (15b) generated by copying the antecedent VP, and the interpretation in (15c).

- (15) a. Max saw ten snakes, and Anne did, too.
  - b. Max saw ten snakes, and Anne did [see ten snakes], too.
  - c.  $\exists X(\operatorname{snake}'(X) \& \operatorname{ten}'(X))[\operatorname{see}'(m,X)] \& \exists Y(\operatorname{snake}'(Y) \& \operatorname{ten}'(Y))[\operatorname{see}'(a,Y)]$

In (15) the set of ten snakes which Anne saw need not be the same ten snakes that Max saw. This is not to imply that IAD as investigated here can be reduced to VP-ellipsis, along the lines of the accounts of VP-ellipsis as V-stranding in V-raising languages like Greek (McCloskey 1991 for Irish and Doron 1990 for Hebrew). Such a reductionist move would face a number of problems. First, the disjoint reference reading is just one of two possibilities under VP-ellipsis, coreference being possible as well. Second, a different predicate can be used in the sentence containing the IAD (as in (3)), which is unexpected under ellipsis (see McCloskey and Doron for this constraint). Third, there seems no reasonable way to rule out copying a VP containing a strong quantificational element, since VP-ellipsis with such objects is perfectly acceptable in all languages that have VP-ellipsis. Fourth, IAD is not restricted to VP-internal arguments, but occurs with subjects as well; these would presumably not be copied along with the VP in a VP-ellipsis account (see fn. 2). For all these reasons, we maintain that the nominal ellipsis seen in IAD is an elliptical process distinct from VP-ellipsis, though the mechanism (LF-copying) used in their resolution is identical.

'Andreas brought, because Niki brought ten cigarettes too'

<sup>&</sup>lt;sup>3</sup> We will not investigate the structural conditions on the licensing of this ellipsis in any detail here, though indefinite argument drop seems to be constrained by the same conditions which regulate other anaphoric and elliptical relations; (i) demonstrates that it obeys Langacker's (1966) Backwards Anaphora Constraint, for example (an anaphorically dependent element may not both precede and command its antecedent).

 <sup>(</sup>i) a. O Andreas efere deka tsigara epidi efere kai i Niki.
 'Andreas brought ten cigarettes because Niki brought too'

b. Epidi i Niki efere deka tsigara, efere kai o Andreas. 'Because Niki brought ten cigarettes, Andreas brought too'

c. Epidi i Niki efere, efere kai o Andreas deka tsigara. 'Because Niki brought, Andreas brought ten cigarettes too'

d. \*O Andreas efere, epidi efere i Niki deka tsigara.

The account given here relies on the availability of LF copy operations like the one employed here. In general, the literature contains numerous applications of copy operations, especially for non-nominal ellipses like VP-ellipsis and sluicing (as in Chung et al. 1995). There has been, however, little development of any general constraints on the nature or scope of such operations. The little discussion that has been offered (for example in Fiengo & May 1994) in fact suggests that ellipsis under identity will be based on very general notions of equivalence classes between syntactic phrase markers. As such, we in fact expect to find this kind of ellipsis in the nominal domain as well. The syntactic restrictions on such ellipsis have been extensively studied (see especially Lobeck 1995), though no proposal currently in the literature accounts for their semantics. The current copying approach is thus the first attempt to capture the interpretation of such null arguments; whether and how it can be extended to other nominal elliptical phenomena is a topic for future research.

Under our analysis, the quantificational matching effect is epiphenomenal. It is a byproduct of the fact that the apparent 'quantificational' force is actually no more than a cardinality restriction contributed by a (possibly complex) adjective. The final question that must be addressed, however, is the following: why can't strong quantificational DPs be copied at LF exactly as DPs containing weak determiners can? We suggest that the answer to this question can be found in the distinct syntax of these two items, and a general constraint on LF-copying. If the adjectival determiners are in fact adjectival in more than just name, i.e., if they occur not in D<sup>o</sup> but rather within the NP, while strong quantificational determiners appear in D<sup>o</sup>, we can begin to see how the difference arises. The two configurations are given schematically in (16).



Following Lobeck 1995, only XPs identified by strong functional heads can be elided; extensionally, this is equivalent to saying that the targets of ellipsis are IP, VP, and NP only (licensed by C, I, and D, respectively). Since weak 'determiners' occur within the NP projection, while strong determiners occur outside it, only weak 'determiners' will be available for LF copy.

The structures in (16) raise an immediate question: what prevents a strong D<sup>o</sup> from selecting an NP containing a weak 'determiner'? We assume that syntactically such structures are well-formed, and will be attested to the extent that they are semantically coherent. In fact, this will be the case with the combination of a universal with a cardinality predicate as in *all three boys* or *the three boys*. In all other cases, a semantically anomalous interpretation would result: *\*most six boys*, *\*every at least one boy*, *\*both two boys* (see Ladusaw 1983 on this last).

Syntactically, then, the *pro* of indefinite argument drop can be decomposed into the structure in (17).

#### Giannakidou and Merchant

(17)  $[_{\text{DP}} \emptyset [_{\text{NP}} e]]$ 

(17) is fully parallel to the structure defended by a number of researchers for sluicing (Chao 1987, Lobeck 1991, Chung et al. 1995). Recall that *pro* as used above was simply a mnemonic convention for the [+pronominal] attribute of the whole DP, and does not commit us to any lack of internal structure in the lexicon.

## 2 Nominal 'subdeletion'

In this section, we briefly discuss a kind of NP-internal ellipsis phenomenon which Greek shares with English, with the sole purpose of distinguishing it from IAD. We will refer to this as 'nominal subdeletion', since it targets a subconstituent of the nominal phrase. Nominal subdeletion is illustrated by the sentence in (18) for Greek and its grammatical English translation. Indices indicate the anaphoric possibilities:

(18) I Theodora poulouse [fthina isitiria]<sub>1</sub> kai o Andreas agorase merika  $e_{1/2}$ . 'Theodora was selling [cheap tickets]<sub>1</sub> and Andreas bought some  $e_{1/2}$ .'

We see that, contrary to what happens in IAD, the noun phrase *merika* (and its English counterpart *some*) can have two interpretations. It can either be disjoint in reference from *fthina isitiria* in the first conjunct (but still anaphoric to the descriptive content), hence the cheap tickets Andreas bought need not have come from Theodora, or it can receive a 'covert partitive' interpretation, where the null element picks out tickets from the set introduced in the first conjunct. The preferred reading in any given instance will be influenced by discourse related factors. This is an important semantic difference between the two phenomena. A related difference concerns the fact that aspect does not affect the interpretation of nominal subdeletion the way it does that of IAD. As the following example shows, when sentences of like aspect are conjoined, coreference is still possible (cf. (3) above).

(19) I Theodora poulouse [fthina isitiria]<sub>1</sub> kai o Andreas agoraze merika e<sub>1/2</sub> the T. sell.past.imperf.3sg cheap tickets and the A. buy.past.imperf.3sg some 'Theodra was selling cheap tickets and Andreas was buying some' 'Theodora used to sell cheap tickets and Andreas used to buy some'

The syntax of nominal subdeletion also distinguishes it from IAD in a number of obvious ways. First, there is an overt determiner present in nominal dubdeletion, where in IAD there is none. Second, no quantificational matching effect is observed: the anaphoric link is established only between the descriptive contents of the two NPs, and the elided NP is associated with a distinct cardinality condition (contributed by the weak 'determiner'). Third, English exhibits nominal subdeletion while lacking IAD (see Milapides 1990 for an extensive comparison of English and Greek nominal ellipses).

While the distinctions we make here raise a number of questions with respect to standard accounts of nominal subdeletion (see Lobeck 1995) which we cannot address here, it seems safe to conclude that the two phenomena are distinct.

## **3** Comparison with previous analyses

#### On the interpretation of null indefinite objects in Greek

The phenomenon of IAD with respect to objects in Greek shows properties different from those attested for null objects in other languages (cf. Rizzi 1986, J. Huang 1984, 1991, Y. Huang 1994, Chung 1984, Authier 1991, Farkas 1987, Bouchard 1984, Roberge 1990, Campos 1986, Raposo 1986, Suñer & Yépez 1988, Dimitriadis 1994a,b, Xeila-Markopoulou 1988, Farrell 1990, and Cole 1988, among others). In this section, we establish that Greek null indefinites cannot be assimilated to the most prominent of the null objects identified in the literature. We will examine the two best-studied types of null objects, null definite objects (topics) and null generic objects, and show that their properties differ significantly from those of null objects in Greek.

#### **3.1** Null definite objects (topics)

Huang 1984 observes that languages like Chinese and Portuguese possess certain null arguments (objects among them) which he proposes should be best analyzed as 'zero (definite) topics'. In this analysis, a null topic operator moves to the topic position of the matrix clause, as in (20) and (21) (from Huang 1984 and Raposo 1986):

- (20) Op<sub>1</sub> [Zhangsan<sub>2</sub> shuo [Lisi<sub>3</sub> bu renshi e<sub>1</sub>]].
   'Zhangsan said Lisi doesn't know [him]'
- (21) Op<sub>1</sub> [Jose<sub>2</sub> sabe [que Maria<sub>3</sub> e<sub>1</sub> viu]].'Jose knows that Maria saw [him]'

In (20) and (21), the null object refers to some salient entity in the discourse and it cannot be interpreted as coreferential with any c-commanding nominal. Huang analyzes this as a strong-crossover effect, a violation of Principle C, since the null object is a variable. These null definite topics are not licensed in islands either, a consequence of the movement analysis. Although this analysis has not gone unchallenged (see Chung 1984 for counterexamples from Chamorro, and Campos 1986 and Luján 1996 for Spanish), it does manage to capture a broad range of facts.

Although null indefinite objects may be interpreted as topics in Greek, we have seen that they are not always interpreted as such. The topic interpretation of a null object is exemplified in (22) and (23) (adapted from Dimitriadis 1994a). Dimitriadis (1994a,b) has shown as well that null topics in Greek do not behave like variables -- for example, they are licit inside islands, cf. (23).

- (22) Q: Foras jalia?
  - 'Do you wear glasses?' A: Forao *pro*.

'I wear [glasses]'

- (23) Q: Vrikate isitiria ja tin tenia? 'Did you find tickets for the movie?'
  - A: Ne, boresame na boume jati vrikame *pro*.

'Yes, we were able to enter because we found [some]'

Dimitriadis also shows that null indefinite objects can be interpreted as topics in sentential subjects and relative clauses. He takes this to indicate that null topics in

### Giannakidou and Merchant

Greek are not syntactic variables and he argues essentially for their pronominal nature (analyzing them as [licensed by] null clitics).

Null objects in Greek cannot be linked to referential, definite topics, as in Chinese and Portuguese. Greek is like English in this respect, requiring an overt pronominal. Thus in (24), *tin* can be interpreted either as coreferential with the matrix clause subject or as referring to some other female, as can *her* in the English translation.

(24) I Theodora ipe oti o Andreas \*(tin) kseri. 'Theodora said that Andreas knows her'

We conclude that Greek does not have null definite objects or topics of the Chinese or Portuguese type.

### 3.2 Null generic objects

Rizzi 1986 identifies a class of null objects in Italian which have a "generic, arbitrary" (p. 504) interpretation and proposes that these are instantiations of  $pro_{arb}$ , an empty category present in the syntax. Since null indefinite objects in Greek are not interpreted generically, they do not qualify as  $pro_{arb}$  proper. Xeila-Markopoulou 1988, however, adopting Rizzi 1986, argues that Greek possesses null objects of some kind that are indeed interpreted as  $pro_{arb}$ , on a par with Italian. In this section, we take issue with Xeila-Markopoulou's view and show that Greek is like English in not licensing such null generic objects in the syntax, and unlike Italian.

Rizzi claims that generic null objects in Italian are active in the syntax and should therefore be present structurally. He uses four diagnostics which indicate that the Italian null object behaves like an overt object: control, binding, secondary predicates, and argument small clauses. We turn now to a comparison of Rizzi's results in Italian with their Greek counterparts.

First, a generic null object can control the empty subject of an embedded infinitive in Italian, as in (25). In (26) we see that this is not possible in Greek.

- (25) In questi casi, di solito Gianni invita *pro<sub>arb</sub>* a [PRO mangiare con lui].
- (26) \*S'aftes tis periptosis, o Andreas sinithos proskalei pro<sub>arb</sub> [na pro fane mazi tou].
  'In these cases, generally Gianni invites [people] to eat with him'

Second, these objects can serve as antecedents for reflexives in Italian, but not in Greek, as the contrast between (27) and (28) shows.

- (27) La buona musica reconcilia  $pro_{arb}$  con se stessi.
- (28) \*I kali musiki simfilionei pro<sub>arb</sub> me ton eafto su.
   'Good music reconciles [one] with himself'

Third, generic null objects in Italian but not in Greek can control the subject of predication in secondary predicates:

- (29) Un dottore serio visita  $pro_{arb}$  nudi.
- (30) \*Enas sovaros giatros eksitazei *pro<sub>arb</sub>* gimnous.
  'A serious doctor visits [people] nude'

Finally, argument small clauses selected by a causative verb allow  $pro_{arb}$  subjects in Italian but not in Greek:

- (31) Questo esercizio mantiene [ $pro_{arb}$  sani].
- (32) \*Afti i askisi kratai [pro<sub>arb</sub> igiis].
   'This exercise keeps [one] healthy'

We conclude that null  $pro_{arb}$  objects are not syntactically present in Greek (*pace* Xeila-Markopoulou 1988; for a conclusion similar to ours see also Condoravdi 1987).

## 4 Conclusion

In this paper, we have analyzed indefinite argument drop (IAD) as an instance of NP-ellipsis. This ellipsis is resolved by the general mechanism of LF-copy, whose application is constrained by syntactic conditions (in the spirit of Lobeck 1995). Analyzing weak (non-quantificational) 'determiners' as intersective cardinality adjectives internal to NP accounted straightforwardly for the observed quantificational matching effect and for the absence of this effect with strong determiners. Strong (quantificational) determiners are in D<sup>o</sup> and hence not possible targets of NP-copy.

Finally, it was shown that IAD is distinct from NP-internal ellipses (nominal subdeletion) and that it cannot be equated to other attested instances of null nominals crosslinguistically (such as null definite topics or  $pro_{arb}$ ).

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