# RELATIVIZATION IN MODERN GREEK ANOTHER LOOK AT THE ACCESSIBILITY HIERARCHY CONSTRAINTS

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The claims made by Keenan and Comrie (and others) concerning relativization in Universal Grammar and the interaction of relative clause formation with the noun phrase accessibility hierarchy have necessarily been based on a limited amount of data from the many languages surveyed. A more detailed look, however, at relativization in one of the languages included in the sample, namely Modern Greek, reveals that certain aspects of Greek relative clause formation do not conform to the putative universals of relativization derived from the accessibility hierarchy. The necessary descriptive background for seeing how Greek provides this counter-evidence is given here, as is a discussion of the theoretical consequences of these facts.

### 0. Introduction

Keenan and Comrie's cross-linguistic analysis of relative clauses (Keenan and Comrie 1972, 1977, henceforth KC, with all citations from the published 1977 version) has generated substantial interest in both the form of relative clauses in natural languages and the proper means of classifying and describing them in Universal Grammar. Two recent studies, though, have

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provided critical appraisals of certain aspects of KC's original classification and claims – Maxwell (1979), working from the same data base as KC, argues for a different classificatory schema for relative clauses while still maintaining, and adding to, the empirical claims they made, and Cinque (1981) argues against some of these specific claims.

In view of these recent works, and of the publication (Keenan and Comrie 1979) of the data which originally provided the motivation for KC's analysis, it is apparent that an in-depth re-examination of the languages covered is in order. This is especially so since for at least one of the languages sampled, Modern Greek, the facts as given in Keenan and Comrie 1979 are vastly oversimplified. This situation is due in part, no doubt, to some arbitrary and perhaps necessary decisions on limiting the data base and presenting the facts perspicuously, but the effect is that certain aspects of KC's analysis which are based on these facts stand in need of revision.

Thus, in this paper, the nature of relative clauses in Greek is examined in some detail in order (a) to correct some nontrivial misleading statements about Modern Greek relativization found in Keenan and Comrie's works and in Maxwell 1979, (b) to add some more information on Greek relative clauses, and finally (c) to show the consequences of a more detailed look at relative clause formation in Greek for the claims made by KC and by Maxwell (1979) concerning relativization in Universal Grammar. It turns out that several of these claims are counter-exemplified by the facts from Greek relative clauses, facts which only a more rigorous investigation of Greek could have brought to light.

# 1. Basic facts on Greek relativization

From a descriptive standpoint, there are three<sup>2</sup> main types of relative clauses in Modern Greek. These have been described elsewhere<sup>3</sup> but are repeated here since they provide an important starting point. The three types involve the following relative markers, which, in each case, follow the head noun:

A. invariant relative marker pu heading the relative clause, with a gap (a 'deletion site' in transformational terms) in the relative clause corresponding to the position occupied by the target of relativization;

B. invariant relative marker pu heading the relative clause, with a pronominal (clitic, except as subject and after prepositions) copy of the target of relativization in the relative clause;

C. variable (i.e. inflected) relative pronoun *o opios* (literally 'the which') heading the relative clause, with its case, number, and gender dependent on the case, number, and gender of the target of relativization.

One of the central focal points for KC's and Maxwell's discussion of relative clauses is the possibilities for relativization with these various strategies at different points on the Noun Phrase Accessibility Hierarchy (AH) of KC (p. 66):

(1) Subject > Object > Indirect Object > Oblique > Genitive > Object of Comparison

Most of the empirical claims of their analyses are based on this hierarchy. Moreover, this is also the area in which some of the misleading statements about Greek occur. Therefore, it is essential to determine the range of applicability of these strategies in Greek.

In tabular form, utilizing roughly the same symbols as KC,<sup>4</sup> these possibilities can be summarized as in table 1. Sentences exemplifying these

Table 1 Relativization possibilities by AH position.

Type	SUBJ	DO	Ю	OBL	GEN	OCOMP
A. (pu Ø)	+(?)	+	-/+	+		_
B. (pu PRO)	+	+	+	+	+	+
C. (o opios)	+	+	+	+	+	+

possibilities are given below, with (a) through (f) under each number corresponding to the subject through object of comparison positions on the hierarchy as the target of relativization (examples (2a), (2c), (2d), (3a), and (3c) are given further explanatory discussion below):

- (2) *Type A*
- (a) kséro ton án0ropo; pu Ø; méni s tin A0ína know/1SG the-man/ACC REL.MRKR live/3SG in the-Athens
  - 'I know the man who lives in Athens'
- (b) kséro ton ánθropo; pu sinándises ∅; xθes met/2SG yesterday
  - 'I know the man you met yesterday'
- (c) kséro ton ánθropo; pu édoses ∅; to vivlío gave/2SG the-book
  - 'I know the man you gave the book (to)'
- (d) kséro ton án0ropo; pu eksartáse Øi depend/2SG

'I know the man you depend on

(e) \*sinándisa ton ánθropo<sub>i</sub> pu kséris to ónoma Ø<sub>i</sub>
 met/1SG know/2SG the-name

'I met the man whose name you know' (Intended Reading)

(f) \*kséro ton án0ropo; pu íse megaliteros

are/2SG bigger/NOM. MASC

'I know the man you are bigger than' (Intended Reading)

(3) Type B

(a) kséro ton ánθropo; pu móno aftós; méni s tin Aθína<sup>5</sup>

only he/NOM

'I know the man that is the only one that lives in Athens' (literally: 'I know the man that only he lives in Athens')

(b) kséro ton ánθropo; pu ton; sinándises xθes

him/ACC.CLIT

'I know the man that you met yesterday'

(c) (i) kséro ton án0ropo; pu tu;

édoses to vivlío

him/GEN.CLIT

'I know the man that you gave the book to

(ii) kséro ton án0ropoi pu édoses to vivlío s aftóni

to him/ACC.STRONG

'I know the man that you gave the book to

(d) kséro ton ánθropo; pu eksartáse ap aftón;

depend/2SG from him/ACC.STRONG

'I know the man that you depend on'

 (e) sinándisa ton ánθropo<sub>i</sub> pu kséris to ónomá tu<sub>i</sub> met/1SG his/CLIT

'I met the man whose name you know'

(f) kséro ton ánθropo; pu íse megalíterós tu;

him/GEN.CLIT

'I know the man that you are bigger than'

(4) Type C

(a) kséro ton ánθropo; o opíos;

méni s tin A0ina

the-which/NOM.MASC.SG

'I know the man who lives in Athens'

(b) kséro ton án0ropoi ton opíoni

sinándises x0es

the-which/ACC. MASC.SG

'I know the man whom you met yesterday'

édoses to vivlío

(c) (i) kséro ton ánθropo<sub>i</sub> tu opíu<sub>i</sub>

the-which/GEN.MASC.SG

'I know the man to whom you gave the book'

(ii) kséro ton án0ropo; s ton opion;

to the-which/ACC, MASC, SG

édoses to vivlío

'I know the man to whom you gave the book'

(d) kséro ton án0ropo; ap ton opíon; eksartáse from

'I know the man upon whom you depend'

(e) sinándisa ton ánθropo<sub>i</sub> tu opíu<sub>i</sub> kséris to ónoma GEN. MASC. SG

'I met the man whose name you know'

(f) kséro ton án0ropo; ap ton opíon; ise megalíteros than

'I know the man who(m) you are bigger than'

Table 1 and the sentences of (2) through (4) indicate that the range of applicability for each of these strategies is relatively large, with type A being the most restricted – in fact, with a few exceptions to be discussed below, each type is possible for virtually all positions.

Several points are noteworthy regarding the information in table 1 and the sentences in (2) through (4). These points become especially important for the interpretation of the claims of KC and of Maxwell, and so figure prominently in later discussion.

First, (2a) shows that relative clauses occur with a gap at subject position, just as they occur with gaps at other positions, as in (2b) through (2e); therefore, (2a) parallels the other sentences in (2) in terms of the surface properties of their relative clauses. However, (2a) may differ from (2b) through (2e) in terms of synchronic derivation, since, in a transformational model, for example, the gap in (2a) may well be the result of Subject Pronoun Drop (working from a deep structure analogous to (3a)), and not a special relative deletion process/rule, while the gap in (2b) through (2e) must be due to such a special process/rule.<sup>6</sup> As far as KC's and Maxwell's schemata are concerned, though, it does not seem to matter which rule or process is responsible for a particular relative clause pattern, since they focus on the *surface* properties of relative clauses.<sup>7</sup> Still, under at least one possible interpretation of one of KC's claims, as is discussed below in section 4, the decision as to which rule/process is responsible for (2a) does make a difference.

Second, for type A, there is a split at the indirect object position. Many (perhaps most) speakers prefer the type B strategy with the resumptive pronoun (i.e. a sentence like (3ci) or less so (3cii)) over the type A strategy with a gap in the relative clause (i.e. a sentence like (2c)), for relative clauses formed on indirect object targets, and for some of these speakers, the pronominal retention strategy (i.e. type B) is obligatory. Nonetheless, there are some speakers for whom the deletion strategy is a possibility for indirect-object relatives. Since the majority of speakers consulted preferred or required the pronominal-retention strategy, a minus (–) has been entered in table A, with a plus (+) as a less preferred alternative.

This split at the indirect object position becomes especially important later when combined with the next point.

Third, the 'plus' at the oblique position for type A involves more than just the absence of the oblique object on the surface. In type A relative clauses with an object of a preposition (oblique object) as target of relativization, one finds the deletion not only of the prepositional object but of the preposition as well. For example, the verb in (2d), *eksartóme* 'depend' regularly occurs only with the preposition *apó* (which often apocopates to *ap*) 'from':

- (5) eksartáse ap(ó) ton Yáni depend/2SG from the-John/ACC 'You depend on John'
- (6) \*eksartáse ton Yáni

Thus an oblique object, the object of the preposition apó with eksartóme, can be the target of a type A relative clause quite readily. <sup>10</sup> This phenomenon occurs not just with verbs such as eksartóme which are strictly subcategorized for taking a prepositional (oblique) object, <sup>11</sup> but with nonobligatory oblique objects as well; <sup>12</sup> for example, in (7):

(7) díkste mu to pedí pu agorásate tin efimerída show/IMPV.PL me/GEN the-child bought/2PL the-newspaper/ACC 'Show me the child you bought the newspaper from'

the optional oblique object apó to pedí 'from the boy' is the target of relativization, and the preposition apó is deleted along with the prepositional object to pedí. Thus a variety of oblique objects, though possibly not all (since not all possible oblique objects could be tested), can occur in type A relative clauses.

Finally, there is the question of the extent of applicability of the type C relative clauses. The inflected relative pronoun which distinguishes this type is typically considered a feature of Puristic (Katharevousa) Greek, and therefore in some sense not a part of 'ordinary', or Demotic, Greek, to which the *pu*-relatives belong. While this is not the place to discuss the numerous (and interesting) social and sociolinguistic factors that play a role in Greek diglossia, <sup>13</sup> it is enough to note that the situation is not so neat and simple as the frequently-mentioned Katharevousa–Demotic split might suggest. Relative clauses with inflected *o opios* do occur on all positions on the hierarchy, and most important, in a variety of social contexts which belie the supposed 'Katharevousa' nature of the construction – one can

observe relative clauses with *o opios*, even those with subject and object relative targets, spontaneously produced by Greeks in casual conversation<sup>14</sup> as well as in somewhat more formal (but not necesarily Katharevousa) contexts such as television broadcasts and newspaper and magazine articles. Moreover, relative clauses with *o opios* at all of the AH positions<sup>15</sup> are uniformly judged as 'correct' and acceptable Greek by informants, even if they recognize that they may belong to a different register. Thus, at the very least, such relative clauses are part of the passive linguistic competence of (virtually) all Greeks and the active competence of many. As such, one cannot simply dismiss type C relative clauses on any AH position from consideration.

## 2. Revisions to KC's and Maxwell's data

The data and observations on Greek relative clauses as presented in section 1 show the need for corrections to the charts of both KC and Maxwell. These charts are given below as tables 2 and 3 respectively, in

Table 2 KC's summary of Modern Greek relativization.

Relativization strategy	Relativizable positions								
	Subj	DObj	IObj	Obl	Gen	OComp			
1. postnom, -case	+	+	_		-	_			
2. postnom, + case	-	-	+	+	+ .	+			

Table 3
Maxwell's summary of Modern Greek relativization.

Relativization strategy		Relativizable positions				
	Subj	DObj	IObj	Obl	Gen	OComp
1. Postnom-WO-S	+	+	_	_		_
2. REL-S	_	-	+	+	+	_
3. Postnom-PRO-S		_	+	+	+	+

much the form in which they appear in the articles in question. Within KC's classificatory schema, type A relative clauses would be a *postnominal* [-case] strategy, type B a *postnominal* [+case] strategy, and type C similarly a postnominal [+case] strategy. Within Maxwell's classification, type A relative clauses would be a *postnominal word order* strategy (*postnom-wo-s*),

type B a postnominal anaphoric pronoun strategy (postnom-pro-s), and type C a relative pronoun strategy (rel-s).

The corrections are as follows. Contrary to what KC imply:

- a. [postnom, + case], i.e. the type C strategy with *o opios* and the type B strategy with pu plus a resumptive pronoun, is possible for subject and direct object positions, and
- b. [postnom, -case], i.e. the type A strategy with pu is possible for some speakers on a limited basis for indirect object position and is possible for obliques, as indicated by the preposition deletion subtype as in (2d).

Contrary to what Maxwell notes:

- c. Postnom-WO-S, the strategy of type A relative clauses, is possible for some speakers at the indirect object position (cf. b above), and possible for oblique for all speakers with at least some verb-plus-oblique object combinations (cf. b above),
- d. Rel-S, the strategy of type C relative clauses, is possible for subject, direct object, and object of comparison positions, as indicated by the examples in (4a, b, e), and
- e. Postnom-PRO-S, the strategy of type B relative clauses, is possible for subject and direct object positions.

In one sense, some of these 'corrections' may seem trivial and perhaps merely the result of overfastidiousness with the data, especially since KC (and Maxwell, following KC) were aiming for a characterization of the general applicability of a relative clause formation strategy – in the key to table 1 of KC (p. 79), for instance, one finds the following: "+ means that the strategy generally applies to that NP position; – means that it does not". Nonetheless, the consequences of overlooking these additional facts are real enough and in some instances, even, are quite severe, as far as various universals of relativization proposed by KC and by Maxwell, especially the so-called 'Hierarchy Constraints', are concerned.

## 3. Revisions to KC's and Maxwell's claims

The effects of the evidence from Greek relative clause formation on KC's and Maxwell's claims regarding relativization in Universal Grammar basically center on the preposition-deletion subtype of the *pu*-relatives, i.e. relative clauses of type A formed on oblique targets, and on the difference between the general applicability of such relative clauses and the general unacceptability of type A relative clauses on indirect object targets for most speakers.

The first problem is with KC's Hierarchy Constraint no. 2 (p. 69), which is retained in Maxwell's account:

(8) Any RC-forming strategy must apply to a continuous segment of the AH.

Since the type A strategy is impossible at the indirect object position for many speakers while it is possible at the oblique position (and again impossible for all speakers at the genitive (possessive) position), this strategy, for those speakers, applies to a noncontinuous segment of the hierarchy:

A second problem is related to this one. The type B strategy in which a resumptive pronoun occurs in the relative clause is possible for all positions on the hierarchy. However, it is not obligatory at all positions – for some speakers, the presence of the resumptive pronoun in pu-relatives is obligatory first at the indirect object position, while for others it is obligatory first at the genitive (possessive) position. For neither type of speaker, though, is retention of the pronoun in pu-relatives obligatory for (all) obliques, due to the preposition-deletion subtype of strategy A. Therefore, for the first type of speaker, i.e. the group that requires the resumptive pronoun at the indirect object position, pronominal retention in pu-relatives is not obligatory across a continuous segment of the AH. This counter-exemplifies a claim made by KC (92): "once a language begins to retain pronouns it must do so for as long as relativization is possible at all".

Greek, therefore, provides counterevidence to two claims of KC, ones which are echoed in Maxwell's presentation as well, concerning relative clause formation in Universal Grammar. In addition, this more detailed look at Greek relative clause formation allows for some further important observations concerning aspects of Maxwell's analysis which are not shared with KC.

The first concerns Maxwell's Hierarchy Constraint 4 (HC<sub>4</sub>), discussed on p. 364:

(10) If a WO-S can be used to relativize any position on the NPAH, it can be used to relativize all higher positions.

Because some speakers allow type A relative clauses, a word order strategy by Maxwell's classification, on the oblique position but not on the indirect object position, this hierarchy constraint is counter-exemplified. For such speakers, a WO-S applies (relatively freely) at the oblique position but not at a higher position, the indirect object position.

Second, Greek provides an example of a language-type which, by Maxwell's account, is "excessively rare" (p. 365), 16 namely one in which a PRO-S (pronominal strategy) is used for subject relatives. Sentences such as (3a) above show that the type B strategy, a PRO-S in Maxwell's classification, is possible for relative clauses with a subject as the target of relativization; even though they are not particularly common, as noted in note 5, they do occur under appropriate conditions of emphasis. Moreover, if type A relative clauses on subject position are in fact "derived" by Subject Pronoun Drop, as the evidence of note 6 suggests, then PRO-S relative clauses on subjects (i.e. type B relative clauses) would always be part of the derivation of such type A relative clauses. Thus Modern Greek would have this "excessively rare" relative clause type regularly in the "derivation" of one type of subject relative, as well as occasionally on the surface. 17

Finally, a few comments on Maxwell's discussion of Modern Greek (pp. 367–8) as a problematic case for his classificatory schema are in order. Relative clauses of the type B variety present a problem for Maxwell – citing a Greek relative clause analogous to (3c), Maxwell writes:

In Czech, Genoese, Modern Greek, Slovenian, and Zurich German, several positions on the NPAH (always forming a continuous segment [sic, as far as Modern Greek is concerned – see above/BDJ]) can code the case of the NP<sub>rel</sub> by means of an anaphoric pronoun in the position between the head NP and the subject of the restricting clause – i.e. the usual position for relative pronouns... [A relative clause as in (3c)] presents a combination of an invariant relativizer with a personal pronoun, in the position where a variable relative pronoun is expected. If these sentences are classified according to the position of these pronouns, they must be considered specimens of rel-s: if they are classified according to their form, they must be considered specimens of Postnom-pro-S.

As Maxwell points out, it really is of no great import which classification is adopted in most such cases – his decision to call the Modern Greek type (Postnom)-pro-S is based on his feeling that the position of the pronoun in such sentences is independent of its use in forming a relative clause. Moreover, he states that any evidence showing this would support his otherwise arbitrary classificatory decision. In fact, such evidence exists for Greek – clitic pronouns, such as tu in (3ci), regularly attach to the left of finite verbs such as édoses in (3ci). Moreover, the pronoun does not have to occur next to the invariant relative marker pu, as Maxwell seems to imply; sentences such as (11a) and (11b) are judged by Greek speakers to be of equal acceptability:

- (11a) kséro ti yinéka pu tis édose o Yánis to vivlío know/1SG the-woman/ACC REL.MRKR her/GEN gave/2SG John/NOM the-book 'I know the woman John gave the book to'
- (11b) kséro ti yinéka pu o Yánis tis édose to vivlío.

# 4. Possible explanations for the counter-examples

The corrections made here to KC's and to Maxwell's account of Greek relative clause formation are perhaps a matter of interpreting data. They become especially important, though, in their consequences for certain theoretical claims. Thus one might well wonder what possibilities exist for explaining (away) the counter-evidence to these claims provided by Greek. There are in fact several such possibilities; however, none of them seems to be particularly satisfactory and a consideration of them points up a further problem with some of the claims made by KC and by Maxwell.

Most of the difficulty posed by Greek for their analyses, especially with regard to HC<sub>2</sub> (see (8) above) and HC<sub>4</sub> (see (10) above), lies in the possibilities for relativization with *pu*-relatives at the indirect object and oblique positions on the hierarchy and the discontinuity in the NPAH that these produce.<sup>20</sup> That the indirect object position should be a source of difficulty is perhaps no surprise, inasmuch as KC (p. 72) note that "the indirect object position is perhaps the most subtle one on the AH". Thus the possible ways around this counter-evidence to HC<sub>2</sub> and HC<sub>4</sub> focus on the nature of the indirect object position and indirect object relativization.

One simple solution to these problems is to reformulate the AH so that the relative order of the positions is different rom that in (1):

(12) Subject > Direct Object > Oblique > Indirect Object > Genitive > OComp.

While this works, it must be rejected as a solution since it lacks any independent motivation for Greek (and probably for other languages as well); moreover, it deprives the NPAH, as well as the constraints based on it, of any real empirical content, thus reducing its utility in Universal Grammar considerably.<sup>21</sup>

A second possibility is that some of the positions on the hierarchy are conflated in Greek; Gary and Keenan (1977) have suggested a conflation of direct object and indirect object positions for Kinyarwanda and KC (pp. 66, 72, 90) discuss possible conflations of other positions in various languages. With some positions conflated, divisions in relativization possibilities could

be said to be internal to one position on the AH and therefore not lead to a discontinuity in the AH taken as a whole. There are (at least) three conflation schemata which one might propose to salvage the hierarchy constraints; none, however, really offers a satisfactory way of explaining the counter-examples.

First, one might conflate the indirect object position with the genitive position, so that oblique would be higher than the conflated genitive-plus-indirect object position. However, even though the genitive case can be used to mark indirect objects as well as possessives,  $^{22}$  Greek has an alternative way of marking indirect objects as well, namely with the accusative case preceded by the preposition s(e) 'to; in; at': $^{23.24}$ 

(13a) édosa tu Yáni / s to Yáni to vivlío (indirect object) gave/ISG John/GEN to John/ACC the-book/ACC

'I gave the book to John'
(13b) vríka tu Yáni / \*s to Yáni to vivlío (possessive)

found/ISG GEN PP
'I found John's book'

Moreover, indirect objects and possessives differ with respect to pronounretention possibilities in relative clauses (optional for indirect objects, obligatory for possessives), so that even a conflated indirect object/genitive position would have a well-defined split.

Second, one might conflate the indirect object and the oblique positions, as is the case in English or Malay,  $^{25}$  and as is suggested by the prepositional-phrase indirect object expression with s(e) (see (13a), for example). Prepositional phrases with s(e) do express what KC (p. 66) call "Major" obliques (those that "express arguments of the main predicate") and more adverbial obliques such as directional or locational, but only s(e)-indirect objects can alternate with the genitive case (see (13a)):

(14a) évala ta leftá s to kutí / \*tu kutyú (major oblique) put/1SG the-money/ACC in the-box the-box/GEN
'I put the money in the box'

(14b) pigéno s tin Aθína / \*tis Aθínas (directional) go/1SG to the-Athens the-Athens/GEN '1 am going to Athens'

(14c) méno s tin Aθína / \*tis Aθínas (locational) live/1SG 'I live in Athens'

Also, the s(e)-PPs with indirect object function can, for some speakers,

receive a clitic pronominal copy 'registering' it on the verb,  $^{26}$  while no other s(e)-PPs can for any speaker: $^{27}$ 

(15a) tui édosa s ton Yánii to vivlío him/GEN gave/1SG to John/ACC the-book 'I gave the book to John'

(15b) \*tu; évala s to kutí; ta leftá it/GEN put/1SG in the-box the-money 'I put the money in the box'

(15c) \*tisi pigéno s tin Aθina; it/GEN.FEM go/1SG to 'I'm going to Athens'

(15d) \*tisi méno s tin Aθina live/ISG in 'I live in Athens'

Thus s(e)-PPs which are indirect objects are distinguished syntactically from other obliques and especially from other obliques with s(e), so that collapsing the indirect object and oblique positions in Greek seems illadvised at best and ad hoc at worst.

One additional conflation schema would assign genitive indirect objects to the genitive position and prepositional-phrase indirect objects to the oblique position. Such a move is virtually identical to the first possibility in which the AH positions were rearranged, but can further be rejected because the resulting hierarchy:

(16) Subject > Direct Object > Oblique/PP-IObj > GEN-IObj/Poss-GEN > OComp

misses a clear generalization – speakers who reject type A relatives on indirect objects have the pattern of +'s and -'s of (17a) while those who permit such relative clauses have the pattern of (17b):

i.e. both types of indirect object behave alike even though they are at different positions on the hierarchy.<sup>28</sup>

Besides the conflation possibilities, there is one further possible way around the problems posed by the indirect object position that must be considered. It draws on an analysis given by KC (p. 85)<sup>29</sup> for some recalcitrant data from Hausa. In that language, there are clitic pronouns which

regularly accompany full subject noun phrases in simple sentences and which occur in subject relative clauses as well; KC (p. 86) say that "instead of regarding them [the clitics] as constituent parts of a +case strategy, we may regard them as an instance of verb agreement ... it is often difficult to draw a precise dividing-line between clitic pronouns and agreement affixes [so] we are therefore suggesting that where the presence of a pronoun is required by the presence of a full NP, then the pronoun be regarded as an instance of verb agreement, and not as an instance of NP case marking". With regard to indirect objects in Greek, the fact that the indirect object clitics can cooccur with full indirect object noun phrases (a genitive casemarked indirect object for all speakers and a prepositional phrase indirect object for some - see (15a) and note 26) might lead one to say that the apparent resumptive pronoun in sentences like (3c) is not a pronoun but a verb agreement marker and therefore that (3c) is an instance of the type A ('gap') strategy and not the type B (resumptive pronoun) strategy. There would then be no discontinuity for the type A relative clauses, which constitute the [postnom, -case] strategy in KC's terms and the postnom-WO-S strategy in Maxwell's.

There are, however, reasons for rejecting this verb agreement analysis of the indirect object clitics and therefore for having to admit to a discontinuity with type A relative clauses. First, KC (p. 86) say the clitic should be *required* by the full noun phrase to be considered an agreement marker, and in Greek, the indirect object clitics are in general optional;<sup>30</sup> as noted earlier, a sentence like (13a):

(13a) édosa tu Yáni to vivlío gave/1SG John/GEN the-book 'I gave the book to John'

as argued that the presence of such clitic copies of full noun phrases is sed to certain discourse functions identifying the topic of a sentence, connection which would be unusual and unexpected if the clitics were greement markers proper. In addition, the position of the clitics is determined by the type of verb form – proclitic ("prefixal") for finite verb orms and enclitic ("suffixal") for nonfinite forms<sup>31</sup> – by contrast, the ther agreement markers in Greek, i.e. those that register the person and number of the subject on the verb, are always suffixal, even in the finite orms:

(18) gráf-o / \*o-graf. write/1SG.PRES

Thus there seems to be no good independent motivation for treating the indirect object clitics as agreement markers, so that even this attempt to overcome the counter-evidence to  $HC_2$  and  $HC_4$  must be judged unsatisfactory.<sup>32</sup>

Given, then, that no satisfactory explanation of these problems concerning the indirect object position can be found, one might conceivably claim that they have arisen from the undeniable fact that Greek is undergoing a transition in the encoding of indirect objects, away from genitive case marking in the direction of prepositional phrase marking; in this view, this change in progress finds its reflection in speaker variability regarding type A or type B relative clauses at the indirect object position and is what is interfering with what would otherwise be a 'well-behaved' system with respect to the AH. However, general methodological concerns argue against such a position, <sup>33</sup> and in any case, Greek in its current state, whether 'in transition' or not, is a possible human language, i.e. something which Universal Grammar must be broad enough to account for – as such it would stand as a counter-example to these claims despite its possible 'transitional' status.

Finally, there is a possibility that pertains only to the  $HC_2$ . As given in KC, there are actually two versions of  $HC_2$  – one, (19a) is part of their general Hierarchy Constraints, while the other (19b), is somewhat more restricted and is part of their Primary Relativization Constraints:

(19a) Any RC-forming strategy must apply to a continuous segment of the AH (p. 67)(19b) If a primary strategy in a given language can apply to a low position on the AH, then it can apply to all higher positions (p. 68)

A "primary strategy", in KC's terminology, is one that "can be used to relativize subjects" (p. 68). If one takes into account the derivation of type A relative clauses in a transformational framework, contrary to KC's and Maxwell's general focus on surface properties but a possible interpretation nonetheless, then, as seen in note 6, type A relative clauses on subjects may be the result of Subject Pronoun Drop operating on strings analogous to type B relative clauses. As such, they would not, in a transformational classification, constitute a distinct relativization possibility for subjects, so that one might argue that the [postnom, -case] (= Maxwell's postnom-WO-S) strategy is not a primary strategy. In this view, the more

general (19a) could not stand but the more restricted claim (19b) could still be maintained. In view of the fact that neither KC nor Maxwell (who, by the way, seems not to distinguish between the two forms of  $HC_2$ ) is interested in anything but the surface form of relative clauses, this analysis which would save the  $HC_2$  in its form in (19b) would probably not be warranted in either's system.

In view of all these difficulties with the various proposals to save  $HC_2$  and  $HC_4$ , it seems that it must be admitted that Greek provides a counter-example to these two claims. This result is perhaps not surprising especially in the case of  $HC_2$ , in view of other counter-evidence to be found elsewhere, such as that discussed (and "not so easily disposed of", to use KC's words (p. 86)) from Tongan (KC: 86–88), that presented by Cinque (1981) from Italian,<sup>34</sup> and that found in Chung and Seiter (1980: 633) from Rennellese and Samoan.

## 5. Conclusion

A final comment is necessary concerning KC's and Maxwell's claims based on the NPAH with regard to relative clauses. There is a certain vagueness built into parts of their analyses which makes it difficult, in some instances, to evaluate their claims. For example, they say they are interested in the general form of relative clauses in a language, as indicated by the quote given above in section 2, "+ means that the strategy generally applies to that NP position [emphasis added/BDJ]" and by statements such as "normally [in Hebrew] personal pronouns are retained in the NPrel position, although this is not in general done for subjects (though it sometimes is - see Givón 1973 for some discussion) [emphasis added/BDJ]" (Comrie and Keenan 1979: 338). However, what independent tests are there that might be used to determine exactly what terms such as 'generally' or 'normally' mean? While seeking the general form is in some sense a necessary methodological step,35 in specific instances it can lead to real problems. For example, the absence of subject pronouns on the surface is, to be sure, the unmarked situation for a language like Greek, and because of that, most subject-relatives one encounters in the language lack a resumptive pronoun. Nonetheless, when the discourse conditions are appropriate, Greeks produce subject relatives with a resumptive pronoun - thus the ability to produce such sentences must be part of the active linguistic competence of Greek speakers, and accordingly, dismissing this aspect of their competence

simply because it occurs under more marked discourse conditions seems unnecessarily arbitrary and in a real sense constitutes a distortion of the nature of relativization in Greek. Similarly, what is the 'general' form of indirect-object-relatives with the particle pu? Since there are speakers of both the obligatory-pronoun-retention and the optional-pronoun-retention dialects who do not seem to be distributed along any readily-discernible geographic or social parameter, what shall the 'general' form of such relative clauses be for Greek as a language? Any classification that excludes one or the other dialect arbitrarily would seem to be misrepresenting the true nature of Greek relative clauses.

Perhaps the most important conclusion to be drawn from this more detailed look at Greek relative clause formations<sup>36</sup> is a point which KC themselves noted (p. 75): "Needless to say, such a summary cannot adequately represent all the language-particular problems involved in determining the nature of an RC-forming strategy". A consideration of these facts from Greek shows that this statement is relevant not only for individual languages but also for Universal Grammar, in that these 'language-particular problems' are crucial for testing the validity of aspects of relative clause formation attributed to Universal Grammar. The form and nature of relative clauses in Universal Grammar, and more generally, of constructs like the NPAH, can become that much more enriched when all the languages in KC's sample are scrutinized in at least the 'depth' reached here for Greek.<sup>37</sup>

### Notes

For most speakers consulted, the pronominal copy is necessary in a sentence like (i) with an indirect object as target of relativization, for otherwise the genitive relative pronoun *tu opiu* has a possessive reading, i.e. 'the man whose book you gave (away)'. Thus this relative-pronoun-*cum*-resumptive-pronoun type is a legitimate, though infrequent, kind of relative

<sup>&</sup>lt;sup>1</sup> See Comrie and Keenan (1979) for a reply to Maxwell.

<sup>&</sup>lt;sup>2</sup> This ignores an additional type in which there is a case-marked relative pronoun at the head of the relative clause as well as a pronominal copy of the nominal target of relativization. Some examples of this type are:

 <sup>(</sup>i) kséro ton ánθropo<sub>i</sub> tu opíu<sub>i</sub> tu<sub>i</sub> édoses to vivlío know/1SG the-man/ACC the-which/GEN him/GEN .CLIT gave/2SG the-book
 'I know the man to whom you gave the book'

<sup>(</sup>ii) den boró na vró to ftiárii to opíoi ípe i María pos not can/ISG VBL.PRT find/ISG the-shovel the-which said/3SG Mary/NOM COMP nomízi o Yánis pos toi évale kondá s tin pórta think/3SG John/NOM it/ACC put/3SG near to the-door/ACC

<sup>&#</sup>x27;I can't find the shovel which Mary said John thinks he put near the door'.

clause for indirect-object-relatives. The 'legitimacy' of this type with respect to (ii) is more open to question, though. Sentence (ii) may, in a real sense, be nothing more than a 'performance' error in which the speaker has 'lost track' of the clause in which the relative pronoun (to opio) originates and so marks it with the pronominal form to – such an account is suggested by the fact that in such relative clauses, to the extent to which they occur at all, the relative target is several clauses 'down' from the head noun. In addition, one cannot rule out the possibility of a conflation of types B and C given below, especially in view of the sociolectal status of type C relatives.

In view of the possible marginal status of this type, it is deliberately being omitted from the discussion; also, its omission does not affect any of the results reached here for it applies to a continuous segment of the AH. It is perhaps of some interest, though, that this type is ambiguous as to its classification in Maxwell's system but not in KC's. For KC, this strategy would be postnominal, [+case], while for Maxwell it would be either (both?) postnom-pro-S, since there is an anaphoric pronoun in the relative clause coreferential to the head nominal, or (and?) rel-S, since there is an inflected relative pronoun, indicating case, in the relative clause.

- <sup>3</sup> For example, in standard grammars of Greek such as Mirambel (1939) and also in Joseph (1980a).
- <sup>4</sup> A + indicates that the strategy can apply to that position; a means that it absolutely cannot; +(?) means there is some uncertainty as to the applicability of the strategy due to possible ambiguity of analysis see discussion below for details; -/+ means that speakers differ on their judgments of such relative clauses see discussion below.
- The type of relative clause represented by (3a), with the relative word pu and a resumptive pronoun subject target of relativization, is of low frequency in Greek, largely, it seems (see also note 6), because subject pronouns are generally absent from the surface structure unless they are stressed or emphatic. Furthermore, such a configuration, with the head noun  $(an\theta ropo$  man') so close to the subject of the relative clause, is not one in which the subordinate clause subject would ordinarily receive any emphasis. Thus a reinforcing word, such as mono(n) 'only' as in (3a), is often needed to make such type B relative clauses more acceptable.

o anés0itos / pu ótan óli emís 0rinúme aftós agaliá / ke the-unfeeling/NOM REL.MRKR when all-we/NOM mourn/1PL he/NOM exult/3SG and ótan óli páli agaliúme / aftós anétia ski0ropázi when all/PL again exult/1PL he/NOM without-cause scowls/3SG

'The unfeeling one, who, when we all are mourning he exults and (who) when we all on the other hand exult, he scowls without cause'

In this relative clause, the resumptive pronoun aftos is retained each time on the surface because of the strong contrast with emis.

- <sup>6</sup> As noted in note 5, Greek independently has a process sanctioning the absence of unemphatic or unstressed subject pronouns on the surface. The conditions under which subject pronouns occur in simple sentences (for example with a reinforcing word like móno(n) 'only' see (3a)) parallel the conditions under which they can occur in relative clauses, suggesting the same process is at work in each case. As for object pronouns, though, Greek has no general process allowing definite (and specific) accusative (object) pronouns, such as occur in type B relative clauses, to be superficially absent, although indefinite and non-specific accusative pronouns are optionally absent, especially in answers to yes-no questions, e.g.:
  - (i) vríkes éna voi0ó;? Né, vríka ∅ found/2SG a-helper/ACC yes found/1SG 'Did you find a helper? Yes, I did'

Ingria's (1978) claim that Modern Greek has a "discourse deletion rule" which is responsible for the absence of accusative clitic pronouns in pu-relative clauses is based on data which none of the many speakers I have consulted found acceptable, so that I question the existence of such a rule. Consequently a special relative deletion process/rule is needed at least for nonsubject type A relative clauses, in a transformational framework, and perhaps also for type A subject relative clauses as well.

<sup>7</sup> Maxwell does provide transformational counterparts to his classifications based on surface form, but that is only to show that it can be done – transformations do not provide the basis for his classifications in any sense.

- <sup>8</sup> Ingria (1978: 14) also, reports finding speakers with obligatory retention of the genitive pronoun in pu-relatives with an indirect object target of relativization.
- <sup>9</sup> This phenomenon has been discussed elsewhere in the literature with regard to Greek, e.g. in Maling (1977), Joseph (1980a), and most recently in Theophanopoúlou-Kontoũ (1982), and is certainly of considerable theoretical interest in its own right. Moreover, this 'preposition-deletion' subtype may actually be more widespread than one might think Roviana, as described by KC (p. 73) seems to allow the preposition which marks indirect objects to be deleted in relative clauses on the indirect object position even though it cannot be deleted otherwise. Also, English relative clauses with the nouns *place* or *time* as their head (if indeed these are real relative clauses):
- (i) The place I want to go next is Mexico

may show the same phenomenon since the verb normally does not occur with a bare nominal following it (cf. \*I want to go Mexico).

- Greek has no preposition-stranding, so if the prepositional object is deleted, the preposition must be deleted too; a sentence like (i) is totally ungrammatical:
  - (i) \*kséro ton ánθropo pu eksartáse apó know/1SG the-man/ACC REL depend/2SG from

'I know the man you depend on'

Nor can pu support the preposition via 'pied-piping':

(ii) \*kséro ton ánθropo apó pu eksartáse

Thus pu in this regard is analogous to English 'relative' that; it is probably to be classified as a complementizer (as in English 'relative' that) and so identified with the complementizer pu that occurs in complement structures with various verbs of perception and emotion (among others), e.g.:

- (iii) xárika pu ír0es was-glad/1SG COMP came/2SG 'I was glad that you came'
- Others include *alilografó* 'correspond (via letters)' (with the preposition *me* 'with') and *endiaférome* 'be interested in' (with the preposition *ya* 'for').
- <sup>12</sup> See Maling (1977) for some discussion.
- <sup>13</sup> For some recent discussion and references concerning this longstanding issue, see Babiniotis (1979), Kahane and Kahane (1979: 189-190), and Warburton (to appear).
- <sup>14</sup> For example, in July 1981 in Thessaloniki, while I was helping a Greek friend move some furniture, our conversation turned to his car and the repairs it was in need of; in talking about his car, he said:
  - (i) to aftokinito to opio agórasa tóte...
    the-car the-which/NOM bought/1SG then
    'the car which I bought then...'

While the man is a college graduate and currently is an high-school mathematics teacher, this situation was informal and casual to the utmost degree; thus even if his schooling and position are responsible for his producing such relative clauses, he nonetheless does use them in informal contexts.

- One exception to this claim comes with o opios relatives with an indirect object target of relativization and a genitive case-marked relative pronoun, as in (4ci). While some speakers consulted did accept (4ci) with the indirect object, most felt it could only have a possessive-relative sense, i.e. 'the man of whom you gave (away) the book'; all speakers, though, for an o opios relative with an indirect object target, preferred the prepositional-phrase indirect object expression, as in (4cii), and some accepted as well the o opios-cum-resumptive pronoun type described in note 2. These observations, while interesting in view of the 'soft spot' in the AH in Greek at the indirect object position, do not materially affect the conclusions drawn here because both the prepositional-phrase indirect object and the genitive-case indirect object have the same classification in either of the frameworks, KC's or Maxwell's, under consideration here. For further discussion of the indirect object position in Greek, see section 4.
- <sup>16</sup> Maxwell says only one such language occurs in KC's sample, though in his table 3, two languages, Tongan and Urhobo, seem to use a pronominal-retention strategy for subjects, and Keenan and Comrie (1979: 338), following Givón (1973), say that such a strategy is possible, though not common, for Hebrew.
- The cautions voiced above concerning the fact that KC's and Maxwell's primary focus is on the *surface* properties of relative clauses must be borne in mind at this point as well, though.
- $^{18}$  As an anonymous reader has pointed out to me, the ensuing discussion parallels to a large extent the discussion to be found in Comrie and Keenan (1979: 658–9) regarding the use of  $co\ ho$  in relative clauses in colloquial Czech.
- 19 If imperatives in Modern Greek are considered finite a position which I personally do not adhere to (see Joseph 1978: ch. 7; 1980b: 358–9) but which has been proposed (e.g. by Irene Warburton of the University of Reading (personal communication)) then the generalization regarding clitic placement in relation to finite verbs must contain an exception for imperatives, for clitics attach to the right of imperatives:

- (i)(a) pés to / \*to pés say/SG.IMPV it 'Say it!'
- (i)(b) péste to / \*to péste say/PL.IMPV it 'Say it!'
- Since type A relative clauses formed on indirect object targets are at the crux of the problems for the hierarchy constraints it is worth adding some further examples of such sentences which show the dialectal/idiolectal variability. A sentence such as:
  - (i) o Yánis íne o fititís; pu i lísi tu ká0e

    John/NOM is the-student/NOM REL the-solution/NOM the/GEN each

    provlímatos Ø; diafévgi

    problem/GEN escape/3SG

'John is the student who the solution to each problem escapes' was judged acceptable by one speaker but rejected by another. However, the following sentence:

(ii) den ipárxi elinída; pu den ∅; arésun ta pedyá
not exist/3SG Greek/NOM.FEM be-pleasing/3PL children/NOM
'There isn't a Greek woman who doesn't like children' (literally: '... who children
aren't pleasing (to)')

was uniformly judged unacceptable, even by the speaker who found (i) (and (2c)) to be acceptable. In general, then, there are speakers who do not allow type A relatives with indirect object targets but there are also speakers who do allow such relative clauses (though with some speaker-internal variability).

- Cinque (1981: 306), in discussing a similar possibility to account for some facts about Italian relative clauses that run counter to the predictions of HC<sub>2</sub> and the NPAH, reaches a similar conclusion, adding that "such revision of K&C's AH drastically reduces the general applicability of the hierarchy, which is thought to be relevant in accounting for universal aspects of such other related phenomena as causative constructions and advancement processes".
- As was the case with the genitive relative pronoun tu opiu, many speakers prefer the alternative expression of the indirect object with the preposition s(e), presumably because of the interference from the possessive reading of the genitive case.
- See Joseph (1982) for a discussion of these different indirect object markings in Greek and in particular for the conclusion that they do not represent differences in grammatical relations.
- Many languages, of course, show a 'dative of possession' construction, in which nominal forms used in indirect object functions are also used in the expression of possession, just like the Modern Greek (so-called) genitive case. What is at issue here is the fact that Modern Greek has another means of marking indirect objects that is not used for possession as well.
- As pointed out by KC (p. 72), "many languages either assimilate indirect object to the other oblique cases (e.g. English, Malay) or to direct objects (e.g. Shona, Luganda)".
- All speakers seem to allow genitive indirect objects to be cross-indexed with a clitic pronoun in this way, e.g.:
  - (i) tu; édosa tu Yáni; to vivlío him/GEN CLIT gave/ISG John/GEN the-book 'I gave the book to John'

See also the discussion below in section 4 on the question of whether this cross-indexing with clitics is an instance of verb agreement proper or not. Although other obliques can show such clitic copies, e.g. benefactives, as in:

me/GEN.CLIT bought/2PL for me/ACC.STRONG anything

'Did you buy anything for me?'

not all can; especially interesting here is the fact that homophonous obliques with s(e) do

The dichotomy for speakers with the (17a) pattern at the Obl/PP-IObj position is an additional argument against any schema which conflates oblique and indirect objects of any

The possibility was pointed out to me by an anonymous reviewer.

As noted earlier (see also note 8), there do appear to be some speakers who have such clitics obligatorily in relative clauses and my impression, which I have been unable to verify, however, is that this may hold for some speakers for simple sentences (though not for any of the speakers I have consulted). In addition, such clitics seem obligatory, as noted in note 2, in the type C (relative pronoun) strategy for many speakers for indirect object relatives, due most likely to the possible ambiguity caused by the possessive function of the

This type of variable positioning of such an element is characteristic of clitic pronouns in other languages, for example French and Spanish, but seems not to be so for agreement

Even if the clitic-agreement-marker analysis were adopted, type B relatives would still generate a + at the indirect object position on the AH (and therefore not generate a discontinuity) because of sentences like (3cii) with a full (nonclitic) pronoun as the resumptive element. Thus it cannot be argued that the agreement analysis would simply be trading one

For example, such a position makes a 'language-in-transition' seem like an unusual thing, when in actual fact, all languages are 'in transition' and are constantly in the process of change. For some additional general criticism of this methodological step of explaining away a potential counter-example (found, for example, in Lehmann 1974 and at the heart of KC's discussion of the troublesome Tongan data (pp. 85-88)), see Watkins (1976).

As an anonymous reviewer has pointed out, Cinque himself says (1981: 294, fn. 2) that "it may not be fair to assume that Keenan and Comrie's proposal was meant to represent a true alternative to transformational analyses of relativization systems in individual languages. Their study might be regarded as offering an overall (and necessarily imprecise) descriptive survey of surface phenomena in the relativization systems of a sample of languages of the world. This article, then, would merely count against interpreting their proposal in the former way". However, the thrust of Cinque's article seems to be that this interpretation of KC is not the one he himself adopts. On the other hand, as the reviewer noted, Cinque's crucial examples involve noun phrases which KC specifically did not include on the AH, namely

For example, I have had to use it myself at certain points in the present discussion. Comrie and Keenan (1979: 654-5) address this very point and recognize the potential pitfalls of having of necessity to consider only a portion of the potentially relevant data; as they point out, "no theory can guarantee that all relevant data have been checked" (p. 655).

And note that even though this is more in-depth than KC's look at Greek relative clause formation, it is far from a complete description. In particular, only the formal aspects of Greek relative clauses have been examined here; it remains a task for future research to determine the various functional parameters differentiating these relative clause strategies as well as the sociolinguistics of the use of the type C relative clause, a problem hinted at above. In addition, further work on the dialectal and idiolectal splits noted herein with respect to relativization is needed - for example, my impression is that obligatory pronounretention speakers tend to be from Northern Greece, but this needs to be checked out thoroughly.

This account of Greek relative clauses, however, should not be taken to cast doubt on the AH as a theoretical construct, especially in view of its utility in stating generalizations unrelated to relativization or only indirectly linked to it; see Comrie and Keenan (1979: 660ff) for some discussion.

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