

In Perlmutter and Postal's account, on the other hand, there is direct advancement in the relative clause of the 3-term, the indirect object, to 1-term, subject, status, without an intermediate stage of 3 → 2 (indirect object → direct object) advancement, even though they state that Kinyarwanda apparently independently has a rule allowing the advancement of an indirect object to direct object status (pace Kimenyi (1980:121)). In addition, they revise the relativization constraint to:

(5) Only final terms relativize

so that Maria in (3) above, as an indirect object (or direct object if  $3 \rightarrow 2$  advancement is responsible for one of the forms (3) takes), can be relativized.

Thus Perlmutter and Postal argue that Kinyarwanda has both  $2 \rightarrow 1$  and  $3 \rightarrow 1$  advancement rules, as well as  $3 \rightarrow 2$ . They further claim that these first two rules can be generalized to  $\text{OBJECT} \rightarrow 1$  by making use of the typology of grammatical relations see (Perlmutter 1980, for example) in which direct object ('2') and indirect object ('3') are grouped together as  $\text{OBJECT}$  terms. Moreover, even though the same morphological marker appears with both  $2 \rightarrow 1$  and  $3 \rightarrow 1$  advancement, a fact which one might seek to explain by positing only  $2 \rightarrow 1$  and having -w- be a marker of  $2 \rightarrow 1$  advancement, an equally valid generalization concerning -w- is that its appearance depends on the advancement of an object term to subject.

This revised analysis saves the Stratal Uniqueness Law and furthermore is motivated to the extent that it misses no generalizations which Gary and Keenan's analysis captures and does not involve any complications internal to Kinyarwanda. From the standpoint of Universal Grammar, however, it may seem ad hoc to posit both a  $2 \rightarrow 1$  rule and a  $3 \rightarrow 1$  rule, as well as a  $3 \rightarrow 2$  rule, when  $3 \rightarrow 2$  plus  $2 \rightarrow 1$  would have the same effect ultimately as  $3 \rightarrow 1$  and so would seem to be all that would be needed to account for the ultimate advancement of an initial (underlying) indirect object to subject status. While Perlmutter and Postal (p. 56) point to Western Austronesian languages such as Malagasy (Keenan 1972, 1976) and Cebuano (Bell 1976) as languages with both  $2 \rightarrow 1$  and  $3 \rightarrow 1$ , it is not clear that these languages have  $3 \rightarrow 2$  as well (though Malagasy may).

There is another language, though, namely Modern Greek, which has a rule configuration identical to that posited by Perlmutter and Postal for Kinyarwanda, and, it is motivated by even stronger language-internal facts than in Kinyarwanda. The existence of another such language lends credence to Perlmutter & Postal's revision, since it shows that Kinyarwanda, in their analysis, is not unique in having such a set of rules.<sup>1</sup>

The evidence for this group of rules in Standard Modern Greek comes from the syntactic behavior of one verb, didasko 'teach'.<sup>2</sup> Didasko occurs in three different active-voice patterns:<sup>3</sup>

- (6) a. didásko s ton Yáni tin gramatikí  
teach/sg. to John/ACC the-grammar/ACC  
'I teach grammar to John.'
- b. didásko tu Yáni tin gramatikí  
John/GEN  
'I teach grammar to John'
- c. didásko ton Yáni tin gramatikí  
John/ACC  
'I teach John grammar.'

Although certain aspects are somewhat unclear<sup>4</sup> concerning the relationship among these three types, especially between the patterns of (6a) and (6b), their exact analysis is not crucial to the point being made here.

The types in (6a) and (6b) seem to involve alternative morphological "spelling out" of the marking for initial (and final) indirect object, although other possibilities, including an advancement or demotion analysis for one or the other, cannot be ruled out entirely. The type in (6c), however, seems clearly to involve the advancement of an indirect object to final direct object status, as indicated by the change in case-marking, since accusative is the usual case marking for final direct objects in Greek, and by the possibility of cross-indexing ton Yáni with an accusative clitic pronoun, an emphasizing process which seems to be restricted to final direct objects (for example, in (7b), tin gramatikí is a final 2-chômeur, while in (7e) it is a final 2):

- (7) a. ton<sub>i</sub> didásko ton Yáni<sub>i</sub> tin gramatikí<sub>i</sub>  
 him/ACC John/ACC grammar/ACC  
 'I am teaching John grammar.'
- b. \*tin<sub>i</sub> didásko ton Yáni tin gramatikí<sub>i</sub>  
 it/ACC  
 'I am teaching John grammar.'
- c. \*ton didásko tu Yáni tin gramatikí  
 him/ACC John/GEN
- d. \*ton didásko s ton Yáni tin gramatikí  
 to John/ACC
- e. tin didásko tu Yáni/s ton Yáni tin gramatikí<sub>i</sub>  
 it/ACC  
 'I am teaching grammar to John.'
- cf. f. ton vlépo ton Yáni<sub>i</sub>  
 him/ACC see/1 SG John/ACC  
 'I see John.'

An important fact about the type of (6c) with 3 → 2 advancement is that not all speakers accept such sentences--for many, 3 → 2 advancement is not a possibility, and only the types of (6a) and (6b) occur.

In the passive voice, two patterns occur with didásko, illustrated in (8):

- (8) a. i gramatikí didáskete  
 The-grammar/NOM.SG taught/3 SG PASS  
tu Yáni/s ton Yáni (apó ména)  
 John/GEN to John/ACC by me  
 'Grammar is taught to John (by me).'

- (8) b. o Yánis didáskete tin gramatikí (apó ména)  
 John/NOM be-taught/3 SG. PASS  
 'John is taught grammar (by me)'

(8a) seems clearly to involve advancement to subject of the initial direct object, gramatikí. The analysis of (8b), though, is more interesting.

The obvious analysis of the (8b)-pattern, especially for speakers who accept (6c), is that it involves a two-step "process",  $3 \rightarrow 2$  advancement with  $2 \rightarrow 1$  advancement as well. This "obvious" analysis, however, is probably not the correct analysis.

In particular, for speakers who do not allow  $3 \rightarrow 2$  advancement with didásko, i.e. those who reject (6c), such an analysis requires an ad hoc filter of some sort to prevent the intermediate stage, (6c), from surfacing. For such speakers, an analysis of (8b) as involving direct advancement of the indirect object to subject status, i.e. a  $3 \rightarrow 1$  advancement rule, is thus called for instead. Moreover, even for speakers who allow  $3 \rightarrow 2$  advancement and accept the pattern of (6c), certain facts concerning cliticization with the accusative clitic pronouns argue for a  $3 \rightarrow 1$  analysis of (8b).

In standard Modern Greek,<sup>5</sup> the cliticization of accusative<sup>6</sup> pronouns is restricted to final level 2's (direct objects).<sup>7</sup> Thus the direct object in (9a), which is a final (and initial) 2, can cliticize, as in (9b).

- (9) a. vlépo ton Yáni  
 see/1 SG. John/ACC  
 'I see John.'  
 b. ton vlépo  
 him/ACC  
 'I see him.'

whereas the subject in (10a), which is a direct object at the initial level but not at the final level, cannot, as in (10b).

- (10) a. o Yánis vlépete (apó ména)  
 John/NOM be-seen/3 SG. PASS by me  
 'John is seen by me.'  
 b. \*o Yánis ton vlépete (apó ména)  
 him/ACC

Furthermore, this restriction on accusative-cliticization accounts for the following clitic facts with didásko:

- (11) a. didásko ton Yáni tin gramatikí  
 John/ACC sg. the grammar/ACC  
 'I teach John grammar.'

- b. \*tin didásko ton Yáni  
it/ACC  
'I teach John it.'
- c. ton didásko tin gramatikí  
him/ACC Sg.  
'I teach him grammar.'

(11a) involves  $3 \rightarrow 2$  advancement, with Yáni as the final 2, displacing gramatikí, which is the initial 2 but final 2-chômeur. Accordingly, if accusative cliticization is possible only for final 2's, ton Yáni of (11a) should be able to cliticize but gramatikí should not--this prediction is borne out by (11b) and (11c).<sup>8</sup>

The argument for  $3 \rightarrow 1$  advancement comes from the cliticization possibilities of a sentence such as (8b), repeated here for convenience:

- (8) b. o Yánis didáskete tin grammatikí  
'John is taught grammar.'

Under a  $3 \rightarrow 2$  cum  $2 \rightarrow 1$  analysis of (8b), grammatikí would be a 2-chômeur and so should not be able to cliticize, just as it could not in (11b) above. However, it can cliticize, as shown by (12):

- (12) o Yánis tin didáskete (apó ména)  
John/NOM it/ACC  
'John is taught it (by me).'

The acceptability of (12) is evidence for direct  $3 \rightarrow 1$  advancement, for otherwise, there is no principled way to exclude (11b)<sup>9</sup> but allow (12)--under a  $3 \rightarrow 1$  analysis, grammatikí is a final (and initial) 2,<sup>10</sup> and as such can cliticize.

Thus these facts indicate that Modern Greek has both  $2 \rightarrow 1$  advancement and  $3 \rightarrow 1$  advancement, as well as, for some speakers,  $3 \rightarrow 2$  advancement.<sup>11</sup> The morphological effect of both of these advancements to subject is the same, namely the appearance of the verbal morphology traditionally called "middle" or "passive" or "mediopassive", involving a special set of endings in the present and imperfect tenses,<sup>12</sup> and a special morpheme  $-(\theta)ik-$  in the aorist and a related one  $(-\theta-)$  in the future. This parallel morphological effect of these advancements to subject can be accounted for by generalizing the  $2 \rightarrow 1$  and  $3 \rightarrow 1$  rules as  $OBJECT \rightarrow 1$  and taking the "mediopassive" morphology to be the result of an object term advancing to subject.<sup>13</sup> This is similar to the approach used by Perlmutter and Postal in their reanalysis of Kinyarwanda advancements.

Modern Greek, therefore, provides a parallel to the rule configuration posited by Perlmutter and Postal for Kinyarwanda and so renders their analysis all the more compelling from the standpoint of Universal Grammar. Moreover, to the extent that their analysis is supported, the Stratal Uniqueness Law receives additional support, for their analysis was designed to be in keeping

with this law (while Gary and Keenan's was not). In addition, Greek provides another language in which there is a significant generalization, here the appearance of medio-passive morphology, which can be captured through the grouping of direct object and indirect object together as object terms-- as such it gives added support to this aspect of the typology of grammatical relations proposed in Perlmutter (1980).

Finally, the data discussed here from Greek bears on the "Advancee Laziness Law" of Kimenyi (1980:29):

- (13) An NP undergoing an advancement will advance to the lowest point in the hierarchy permitted by universal and language-particular conditions.

Kimenyi (idem.) exemplifies this law as follows:

That is, if the language has rules such as the following:

non-term, 3 → 2

2 → 1

it will not allow

non-term, 3 → 1

without passing through the intermediate stage, namely

non-term, 3 → 2

Perlmutter and Postal's account of Kinyarwanda presupposes the abandonment of this law and Greek, as described here, confirms that this abandonment was justified, for Greek is a language which clearly has  $3 \rightarrow 2$  and  $2 \rightarrow 1$  but allows advancement of  $3 \rightarrow 1$  without the 3 passing through the intermediate 2 stage.

#### Footnotes

\*This work was supported in part by a Faculty Research Grant awarded by the Graduate School of The Ohio State University.

<sup>1</sup>Even if Malagasy should prove to have  $3 \rightarrow 2$ ,  $3 \rightarrow 1$ , and  $2 \rightarrow 1$ , the fact that yet another language, Modern Greek, has this same set of rules is still supportive of Perlmutter and Postal's position.

<sup>2</sup>The verb danízo 'lend' has been analyzed by Kakouriotis (1979) as allowing advancement to subject of its underlying indirect object because of the apparently related mediopassive verb danízome 'borrow' (i.e. 'be lent (something)'). An animate subject of danízome, however, unlike an animate subject of didáskome 'be taught (something)', is agentive, and can, for some speakers, occur with a modifier like mónos tu 'on one's own', which does not generally go well with nonagentive subjects. Also, as pointed out to me by Marios Fourakis, the preposition apó has the meaning 'from' (i.e. source) when used with danízome, even though it regularly marks the

agent in passive clauses and does so with didáskome. Thus it seems that danízome is best treated as a lexicalized medio-passive verb (see footnote 11) and not derived (syntactically, at least) from the active verb danízo.

<sup>3</sup>This account ignores the possibility of permuting the word order in these patterns. Also, there are some restrictions, irrelevant here, on the use of the genitive case for indirect object marking, due to potential (and actual) interference from the possessive function of the genitive. Finally, these sentences are all given with the definite article tin accompanying the initial direct object gramatikí 'grammar'--although Greeks prefer such sentences without the definite article, nonetheless it can occur and is included here so that there can be no doubt about the definiteness of the object and its eligibility for cross-indexing with a definite clitic pronoun.

<sup>4</sup>Some of the uncertainty comes from speaker variability (see also footnote 5) and some from ambiguities of analysis with clitic copying--see Joseph (1982) for a consideration of different possible analyses of the (5a) and (5b) type and Warburton 1977 for extensive discussion on indirect objects in Greek.

<sup>5</sup>The designation "standard" (i.e. Athenian Greek) is used to exclude from consideration Northern Greek dialects in which the accusative case is used to mark indirect objects and (some) benefactives. Many speakers of these dialects have the "standard" cliticization schema as a sociolect, though there are still some "pure" Northern speakers with only the accusative in these functions.

<sup>6</sup>Only the cliticization of accusative pronouns is necessarily linked to one particular grammatical relation--while genitive clitic pronouns do serve to mark indirect objects, they also mark other grammatical relations, such as benefactive, as well. The cliticization of accusative pronouns must be dependent on the grammatical relation of direct object because there are accusative nominals which express temporal and instrumental relations which in pronominal form cannot cliticize onto the verb:

(i) a. pérasa ekíni tin óra apó to grafío  
passed/1SG that-the-hour/ACC by the-office  
'I passed by the office at that hour.'

b. \*tin pérasa apó to grafío  
it/ACC  
'I passed by the office then.'

(ii) a. yémisa ti lípsi pu mónon tha esthanótan  
filled/SG the-sorrow/ACC that only FUT felt/3 Sg.  
énas élinas  
a-Greek/NOM

'I was filled with the sorrow which only a Greek could feel.'

b. \*tin yemisa  
it/ACC

'I was filled with it.'

This restriction to direct objects is shown also by the fact that (iib) is acceptable on the reading 'I filled it' where tin is the direct object, and also by the fact that ekíni tin óra can cliticize when pérasa has the meaning 'pass/spend (time)' and so takes a direct object:

- (iii) a. pérasa ekíni tin óra s to magazí  
 spent/1 SG that-the-hour/ACC in the-store  
 'I spent that hour in the store.'
- b. tin pérasa s to magazí  
 it/ACC  
 'I spent it at the store.'

Thus it is not enough to have accusative-cliticization triggered by any accusative nominal after the verb.

<sup>7</sup> There is, to my knowledge, one systematic exception to this generalization, namely expressions like éxo anáŋgi ('need' (literally "have need/urgency")) or káno kéfi 'like' (literally "make good-mood") which govern NPs in the accusative case as direct objects. When in pronominal form, the NPs governed by these expressions cliticize, with the accusative clitics, onto the verb:

- (i) a. éxo anáŋgi ton Yáni  
 have/1 SG need John/ACC  
 'I need John.'
- b. ton éxo anáŋgi  
 him/ACC  
 'I need him.'
- (ii) a. den káno kéfi tin gramatikí kaθólu  
 not make/1 SG mood the-grammar/ACC at-all  
 'I don't like grammar at all.'
- b. den tin káno kéfi kaθólu  
 it/ACC  
 'I don't like it at all.'

Probably, these expressions involve some sort of restructuring rule, making, for example, káno and kéfi into a single verb which would govern gramatikí as its object. This would be not unlike the type of restructuring that is probably needed to account for English passives like Mary was taken advantage of by one and all. Although positing such a restructuring rule is admittedly an ad hoc move, it seems that these facts would be difficult to account for otherwise in any other treatment of cliticization in Greek.

<sup>8</sup> Since the order gidásko tin gramatikí ton Yáni is marginally acceptable, according to some speakers consulted, the cliticization rule cannot be stated simply in terms of the nominal immediately to the right of the verb without an otherwise unmotivated extrinsic rule ordering.



<sup>9</sup>For speakers without 3 → 2 advancement, (11b) is ungrammatical since it has no possible source. For the same reason, (11c) is ungrammatical for those speakers, a way in which they differ from speakers with 3 → 2 advancement.

<sup>10</sup>Warburton (1977:281) states that in sentences like (8b), gramatikí "regains its direct object status"; by contrast, what is being claimed here is that it never loses this status. Moreover, Warburton's example (84) with a clitic copy (tin) of gramatikí:

(84) ta pedyá            tin<sub>i</sub>    didáskonde        tin gramatikí<sub>i</sub>  
the-children/NOM it/ACC be-taught/3 Pl the-grammar/ACC

'The children are being taught grammar.'

may well provide yet another argument for direct 3 → 1 advancement if one assumes that the clitic copying is a distinct process from the accusative cliticization discussed above. Warburton assumes that the two represent a single process, although it is not necessarily obvious that they should, inasmuch as they have different functions and different outputs (e.g. the full nominal is retained in one but not the other). Thus if accusative clitic copying is restricted to final direct objects, as it appears to be, then (84) gives an additional argument for 3 → 1 advancement with didásko, since in a 3 → 2 cum 2 → 1 analysis, tin gramatikí would be a 2-chômeur and thus ineligible for clitic copying.

<sup>11</sup>Actually, 3 → 2 advancement is not restricted to didásko, as 3 → 1 is. A few other verbs, e.g. maθéno 'teach', kernó 'treat', allow 3 → 2 advancement, and it is safe to say that all speakers allow 3 → 2 with at least a subset of these verbs.

<sup>12</sup>Excluding dialectal and innovative variants, the mediopassive endings are as follows:

(i)	PRESENT				IMPERFECT			
	1 Sg	-me	1 Pl	-maste	1 Sg	-mun	1 Pl	-mastan
	2	-se	2	-søe	2	-sun	2	-saste
	3	-te	3	-nde	3	-tan	3	-ndan

while the active endings are:

(ii)	PRESENT				IMPERFECT			
	1 Sg	-o	1 Pl	-me	1 Sg	-a	1 Pl	-ame
	2	-is	2	-te	2	-es	2	-ate
	3	-i	3	-un	3	-e	3	-an

<sup>13</sup>This morphology has other functions as well--among other things, it marks reflexive and reciprocal verbs with reflexivity/reciprocity between initial subject and initial direct object, e.g. ksirízome 'I shave myself', vlepómaste 'we see each other' (whereas (8b) has only passive value and not reflexive); it occurs with many intransitive verbs, e.g. travyéme 'withdraw', kunyéme 'move'; and, it is found idiosyncratically with a limited number of "deponent" verbs that are active in meaning and syntactically transitive, e.g. θimáme 'remember', skéftome 'think of', etc.

It does not seem possible, however, to make any significant generalizations subsuming all the contexts in which this morphology occurs. In particular, although there are some suggestive parallels, for example, with the analysis for Italian se-verbs based on the "Unaccusative" Hypothesis and the "Multi-attachment" Hypothesis given by Perlmutter (1980) (see that paper for a discussion of this terminology), medio-passive morphology in Greek cannot be said to be associated with all networks in which a single nominal heads a l-arc and an OBJECT-arc, as se is in Italian, because of intransitive verbs with "middle" meanings, such as anígo 'open' (as in i pórtia anígi 'the door opens') which do not have the expected morphology. Conversely, there are verbs which have mediopassive morphology e.g. the transitive deponents like skéftome or intransitives like kunyéme, but which do not readily admit of an analysis in which a single nominal heads a l-arc and an OBJECT-arc.

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