Perlmutter and Postal (1978:51-58) propose a revision to the analysis of Kinyarwanda advancements to subject and relativization given by Gary and Keenan (1977), in order to account for what they proposed as a counterexample to the Stratal Uniqueness Law (Perlmutter and Postal (1978:20)):

(1) Let 'Term' be a variable over the class of Term Relation signs, that is, '1', '2', or '3'. Then: if arcs A and B are both members of the C-th Stratum (b) and A and B are both Term arcs, Then A = B.

The effect of (1) is to allow no more than one term arc (subject, direct object, or indirect object) per stratum. Gary and Keenan, however, argue that in Kinyarwanda, sentences such as (2)

(2) Yohani y-oher-er-eje
John he-send-RECIP - ASP
Maria

"John sent a letter to Mary."

both ibaruwa and Maria are 2's (direct objects) in the same stratum, as evidenced by the fact that both are eligible for relativization, which in their system is subject to the following constraint:

(3) Only (final) 1's and 2's relativize.

Moreover, relative clauses such as (4) occur:

(4) ibaruwa Maria y-Ø-oher-er-ej-w-e
letter Mary she-PAST-send-RECIP -ASP-PASS-ASP

"The letter that Mary was sent."

indicating, to Gary and Keenan, that ibaruwa must be a 2 even though, in their analysis, Maria has advanced from 3 to 2 to 1. They conclude that at some level, the subordinate clause has two 2-terms.

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 (2) above, as an indirect object (or direct object if
3 → 2 advancement is responsible for one of the forms (2) takes), can
be relativized.

Thus Perlmutter and Postal argue that Kinyarwanda has both 2 → 1
and 3 → 1 advancement rules, as well as 3 → 2. They further claim that
these first two rules can be generalized to OBJECT → 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 OBJECT terms. Moreover, even though the same morphological marker
appears with both 2 → 1 and 3 → 1 advancement, a fact which one might
seek to explain by positing only 2 → 1 and having -w- be a marker of
2 → 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 Stratatal 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 → 1 rule and a 3 → 1 rule,
as well as a 3 → 2 rule, when 3 → 2 plus 2 → 1 would have the same effect
ultimately as 3 → 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 → 1 and 3 → 1, it is
not clear that these languages have 3 → 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.1

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

(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 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 Yani 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-chomeur, while in (7e) it is a final 2):

(7) a. ton didásko ton Yani, tin gramatikí
   him/ACC John/ACC grammar/ACC
   'I am teaching John grammar.'

b. *tin didásko ton Yani tin gramatikí
   it/ACC
   'I am teaching John grammar.'

c. *ton didásko tu Yani tin gramatikí
   him/ACC John/GEN

d. *ton didásko s ton Yani tin gramatikí
   to John/ACC

e. tin didásko tu Yani/s ton Yani tin gramatikí
   it/ACC
   'I am teaching grammar to John.'

cf. f. ton, vlépo ton Yani,
   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 Yani/s ton Yani (apó ména)
   John/GEN to John/ACC by me
   'Grammar is taught to John (by me).'
(8) b. o Yánis diáaskete 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 + 2 advance-
ment with 2 + 1 advancement as well. This "obvious" analysis, however,
is probably not the correct analysis.

In particular, for speakers who do not allow 3 + 2 advancement
with diáasko, 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 + 1 advancement rule, is thus called for instead. Moreover, even
for speakers who allow 3 + 2 advancement and accept the pattern of (6c),
certain facts concerning cliticization with the accusative clitic pronouns
argue for a 3 + 1 analysis of (8b).

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

(9) a. vlépo ton Yání  
see/1 SC. 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 diáasko:

(11) a. diáasko ton Yání tin gramatikí  
John/ACC the grammar/ACC
'I teach John grammar.'
b. *tín didáško ton Yání
   it/ACC
   'I teach John it.'

c. ton didáško tin gramatikí
   him/ACC Sg.
   'I teach him grammar.'

(lla) involves 3 → 2 advancement, with Yání 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 Yání of (lla) should be able to cliticize but gramatikí should not—this prediction is borne out by (llb) and (llc).8

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

(8) b. o Yándis didáske te tin gramatikí
   John/NOM it/ACC
   'John is taught grammar.'

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

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

The acceptability of (12) is evidence for direct 3 → 1 advancement, for otherwise, there is no principled way to exclude (llb) but allow (12)—under a 3 → 1 analysis, gramatikí is a final (and initial) 2,10 and as such can cliticize.

Thus these facts indicate that Modern Greek has both 2 → 1 advancement and 3 → 1 advancement, as well as, for some speakers, 3 → 2 advancement.11 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,12 and a special morpheme (-{(0)ik-}) in the aorist and a related one (-{(0)}) in the future. This parallel morphological effect of these advancements to subject can be accounted for by generalizing the 2 → 1 and 3 → 1 rules as OBJECT → 1 and taking the "mediopassive" morphology to be the result of an object term advancing to subject.13 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:

\[
\begin{align*}
&\text{non-term, } 3 \to 2 \\
&\quad 2 \to 1
\end{align*}
\]

it will not allow

\[
\begin{align*}
&\text{non-term, } 3 \to 1
\end{align*}
\]

without passing through the intermediate stage, namely

\[
\begin{align*}
&\text{non-term, } 3 \to 2
\end{align*}
\]

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 \(3 \to 2\) and \(2 \to 1\) but allows advancement of \(3 \to 1\) without the 3 passing through the intermediate 2 stage.

Footnotes

\(^1\)This work was supported in part by a Faculty Research Grant awarded by the Graduate School of The Ohio State University.

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

\(^2\)The verb danizo 'lend' has been analyzed by Kakouriotis (1979) as allowing advancement to subject of its underlying indirect object because of the apparently related mediopassive verb danizome 'borrow' (i.e. 'be lent (something)'). An animate subject of danizome, however, unlike an animate subject of didaskome '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 danizome, even though it regularly marks the
agent in passive clauses and does so with διδάσκομε. Thus it seems that 
διδάκσομε is best treated as a lexicalized medio-passive verb (see footnote 
11) and not derived (syntactically, at least) from the active verb διδάζω.

3 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 τιν accompanying 
the initial direct object γραμματική '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.

4 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.

5 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.

6 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. πέρασα εκείνη την ώρα από το γράφο
    'I passed by the office at that hour.'

   b. *τιν πέρασα από το γράφο
   'I passed by the office then.'

(ii) a. χώρισε το έλεησι το μόνο μόνον ασίανθων
    'I was filled with the sorrow which only a Greek could
    feel.'

   b. *τιν χώρισε
   '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 SC 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.

There is, to my knowledge, one systematic exception to this generalization, namely expressions like éxo anángi ('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 anángi ton Yání
have/1 SG need John/ACC
'I need John.'

b. ton éxo anángi
him/ACC
'I need him.'

(ii) a. dén káno kéfi tin gramatíkí kaéólu
not make/1 SG mood the-grammar/ACC at-all
'I don't like grammar at all.'

b. dén tin káno kéfi kaéólu
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 gramatíkí 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.

Since the order gidásko tin gramatíkí ton Yání 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.
For speakers without $3 \rightarrow 2$ 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 $3 \rightarrow 2$ advancement.

Warburton (1977:281) states that in sentences like (8b), \textit{gramatikì} "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 \textit{gramatikì}:

(84) ta pedýa tìn ìidàskonde tìn ìramatikì
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 $3 \rightarrow 1$ 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 $3 \rightarrow 1$ advancement with ìidàsko, since in a $3 \rightarrow 2$ cum $2 \rightarrow 1$ analysis, tìn ìramatikì would be a 2-chômeur and thus ineligible for clitic copying.

Actually, $3 \rightarrow 2$ advancement is not restricted to ìidàsko, as $3 \rightarrow 1$ is. A few other verbs, e.g. mašèno 'teach', kerno 'treat', allow $3 \rightarrow 2$ advancement, and it is safe to say that all speakers allow $3 \rightarrow 2$ with at least a subset of these verbs.

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 -še 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

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. ksirizome 'I shave myself', vlepùmaste '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 transitve, e.g. ðimáme 'remember', skéfìmle '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 1-arc and an OBJECT-arc, as se is in Italian, because of intransitive verbs with "middle" meanings, such as anígo 'open' (as in ἱ πόρτα ανίγε '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 kunyémé, but which do not readily admit of an analysis in which a single nominal heads a 1-arc and an OBJECT-arc.

References


