

Some Problems of Agreement in English and Albanian

Author(s): Jerry Morgan

*Proceedings of the Tenth Annual Meeting of the Berkeley Linguistics Society* (1984), pp. 233-247

Please see “How to cite” in the online sidebar for full citation information.

Please contact BLS regarding any further use of this work. BLS retains copyright for both print and screen forms of the publication. BLS may be contacted via <http://linguistics.berkeley.edu/bls/>.

---

*The Annual Proceedings of the Berkeley Linguistics Society* is published online via [eLanguage](#), the Linguistic Society of America's digital publishing platform.

Some problems of agreement in English and Albanian  
 Jerry Morgan  
 University of Illinois

I. Introduction. I discuss in this paper some problems of agreement in English and Albanian, with emphasis on the latter, showing how they raise difficulties for the treatment of agreement in Generalized Phrase Structure Grammar (gpsg), and suggesting modifications to allow a satisfactory account of such problems.<sup>1</sup>

As I pointed out in Morgan (1972), the agreement problem consists of at least two subproblems: what I called the selection problem-- the problem of determining which two (or more) elements are involved in the agreement relation--and the determination problem-- that is, how are the agreement properties of a given word or phrase determined? The data I will examine here bear mainly on the determination problem. The questions involved, in general and for a particular language, include these:

1. Are the agreement properties of a phrase P determinable from denotational properties of P?
2. From formal linguistic properties of P?
3. From some complex function of denotational and formal properties?
4. If from formal properties, which ones? Is the order of constituents in P a factor?
5. To what extent is the determination problem context-independent? That is, can one determine the agreement properties of P without reference to properties of the construction containing P, or the elements with which P agrees? For example, could a given NP count as singular as a member of one construction, but as plural in another construction? Perhaps even count as singular for one principle, plural for another simultaneously in a single sentence?

The determination problem is thus analogous to the problem of compositionality in semantics: how do we determine the agreement properties of composed expressions from the grammatical and/or semantic properties of their sub-expressions and their mode of combination?

The heart of the answer gpsg provides to such questions is embodied in the following general agreement principles, (constraints on the instantiation of rule schemata of the form [B<sub>0</sub> B<sub>1</sub> ... B<sub>n</sub>], by PSG rules of the form [A<sub>0</sub> A<sub>1</sub> ... A<sub>n</sub>]) paraphrased somewhat from Gazdar and Pullum (1982):<sup>2</sup>

- A. HEAD FEATURE CONVENTION: If B<sub>i</sub> is the head of B<sub>0</sub> then

HEAD(A<sub>i</sub>) = HEAD(A<sub>0</sub>) [where A<sub>n</sub> is the category that instantiates B<sub>n</sub>]

B. CONTROL AGREEMENT PRINCIPLE: If B<sub>i</sub> controls B<sub>j</sub> then AGR(A<sub>i</sub>) = AGR(A<sub>j</sub>) [A<sub>n</sub>, B<sub>n</sub> as above; X controls Y if (roughly) Y is a function and X is its argument]

C. FOOT FEATURE PRINCIPLE: The increment of the mother category's FOOT feature is the unification of the increments of the daughter categories' FOOT features. [... the foot feature appearing on the mother ... brings together all the additions to foot features in daughters in virtue of feature instantiation]

The principles in A, B and C have the effect of filters on sets of CF PSG rules, admitting only those rules that satisfy all three conditions. In the strict interpretation of gpsg, wherein statements of the meta-grammar are to be interpreted as inducing a set of rules that constitute (or are equivalent to) a context-free phrase structure grammar, it follows that agreement can be enforced directly only between elements of the same rule; i.e., only between mother and daughter nodes or between sister nodes. Agreement between more distant elements must be enforced indirectly, via chains of mother-daughter or sister-sister relations. Agreement restrictions that are not accounted for by these principles must be captured by stipulation (as feature specifications) in particular rule schemata. A and C constitute a simple general solution to the determination problem, B is a general solution for the selection problem. A and C, stated in terms of order-independent head relations, imply that order of elements within a phrase is not a factor in determination. Semantic properties are involved directly only in B, which has no immediate bearing on the determination problem. Agreement properties then must be derivable via head (and/or foot) relations as a projection from grammatical properties (i.e. features) of lexical items.

II. Problems in English. The evidence from English is mixed but problematic. The difference between examples (1) and (2) suggests that denotation is relevant; but one could propose some grammatical property on which and and or differ as a solution to the problem.

- (1) (Both) Harry and Bill have/\*has failed the exam.
- (2) (Either) Harry or Bill has/\*have failed the exam.

Example (3) (from Quirk et al. 1972), on the other hand, suggests strongly that denotational properties are crucial; the number of the verb depends upon whether the intended referent of the subject NP is one person or two.

- (3) His aged servant and the subsequent editor of his papers

was/were with him at his death bed.

Examples (4) and (5) point in the other direction: the reference of the subject NP in (4) is clearly to more than one person, yet the verb is singular. The reference of the subject in (5) is to one person (or none), yet the verb is plural. Here grammatical properties of the head determine the number of the NP, in a way which is apparently inconsistent with the semantics.

- (4) More than one person has/\*have failed this exam.  
 (5) Fewer than two people have/\*has failed this exam.

Thus determination in English must be a function of both grammatical and denotational properties.

As I pointed out in the earlier paper, English also provides evidence that can be construed both for the relevance of order to the determination problem, and against the context-independence of determination principles. The phenomenon involved is what I called the 'closest conjunct principle', which operates in conjoined subjects in some syntactic contexts with the consequence that the verb agrees with the conjunct that is closest to it. The principle can be seen to operate (for some, not all speakers) in examples like (6) and (7), but not in simpler constructions like (8) and (9).

- (6) There was/\*were a man and two women in the room.  
 (7) There were/\*was two women and a man in the room.  
 (8) A man and two women were/\*was in the room.  
 (9) Two women and a man were/\*was in the room.

Notice that one might construe the evidence in (6) and (7) in two ways:

(a) the examples show that selection principles must select in (6) and (7) not the mother NP 'a man and two women' or 'two women and a man', but must pick out the closest conjunct as the NP with which the verb agrees in this construction. Determination principles apply to the selected NP in the usual way. This construal is inconsistent in principle with gpsg, since the elements selected stand neither in the sister-sister nor in the mother-daughter relation, hence would not be in the same CF PSG rule.

(b) selection principles apply in (6) and (7) to select 'a man and two women' and 'two women and a man' as the NP's with which the verbs must agree. But determination principles apply in this construction such that the agreement properties of the mother NP are determined by its left-most daughter. This construal is inconsistent with the gpsg treatment given in A and C (though not in principle

inconsistent with a PSG analysis), since the determination principles would have to be sensitive to the order of conjuncts. In recent work (e.g. Sag et al. ms.) each conjunct of a conjoined structure counts as a head. Perhaps certain heads can be selected as privileged in some principled way. But if the relevant property is, as I claimed in the previous paper, closest to the verb, then the determination principles must refer to elements that are not in the same rule.

In either case, there is some dependency on grammatical context, in that conjunct order is relevant only in a few constructions, like 'there'-insertion, disjunct subjects and some inversions, in a way that presents problems for gpsg (or any existing theory, for that matter).

Notice by the way that the result can conflict with other agreement relations. Some speakers who agree with (6) and (7) find (10) unacceptable, though one speaker accepts (11). All accept (12).

(10) There ??was/??were a man and two women sunning themselves on the patio.

(11) There was a man and two women sunning themselves on the patio.

(12) There were two women and a man sunning themselves on the patio.

But the interpretation of the English data is problematic. Clearly the agreement system in English is moribund; there is almost complete neutralization in most verbs, with be the only verb surviving with any degree of paradigmatic variation for number and person. Thus there is, as one might expect, a great deal of inter-speaker variation that seems not to correlate with generally recognized dialect lines. Judgments are feeble and fleeting for many speakers, and likely to be influenced by performance factors, like the strategy that makes (13) a natural and common kind of error (as opposed to (14), an unlikely error).

(13) \*A copy of the rules are available at the station.

(14) \*A discussion of the rules are available at the station.

One hardly feels confident in drawing important conclusions about the form of grammars from the puzzling and disorderly data of English verb agreement. If gpsg should be allowed something like the 'core/periphery' distinction in government and binding theory, English agreement would be a prime candidate for the periphery.

III. Problems from Albanian. But there is evidence for some of these points in Albanian, a language with a healthy agreement system, showing some inadequacies of the gpsg treatment of agreement. There is evidence for something like the closest conjunct princi-

ple, for the dependency of determination principles on grammatical context, and a new kind of evidence for the crucial role of order in agreement. These are all found in the syntax of the adjectival particle. To show the workings of the particle system, I need first to supply some background on the parameters of the Albanian agreement system.

Albanian marks nouns and their dependents for four properties: case (nominative, accusative, oblique), number (singular, plural), gender (masculine, feminine) and definiteness (definite, indefinite) as illustrated in the noun paradigms below:

(15)	SINGULAR		PLURAL	
	('boy', 'son')			
	Indef.	Def.	Indef.	Def.
Nom.	djal	djali	djem	djemt
Acc.	djal	djal	djem	djemt
Obl.	djali	djalit	djemve	djemvet
	SINGULAR		PLURAL	
	('girl', 'daughter')			
	Indef.	Def.	Indef.	Def.
Nom.	vajzë	vajza	vajza	vajzat
Acc.	vajzë	vajzën	vajza	vajzat
Obl.	vajze	vajzës	vajzave	vajzavet

Modifier phrases follow the noun; the first element of the modifier phrase is a particle whose form depends on the agreement properties of the head noun. The rest of the modifier phrase can be an adjective, as in (16) and (17), or a noun phrase in oblique case, interpreted as possessor, as in (18) and (19).

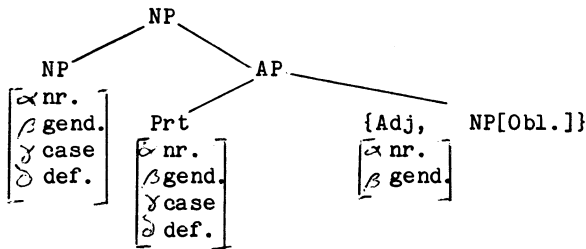
- (16) djali i mirë 'the good boy (Nom.)'  
 (17) djem të mirë 'good boys (Nom. or Acc.)'  
 (18) vajza e kryetarit 'the daughter of the president (Nom.)'  
 (19) vajzavet të kryetarit 'the daughters of the president (Obl.)'

Notice that in the latter two examples the particle agrees not with the oblique NP to its right, but with the head noun to its left.

Below is a full chart of the particle forms. Notice that some cells contain two forms. This can be ignored for the moment, but I will return to it later.

	SINGULAR				PLURAL			
	Indef.		Def.		Indef.		Def.	
	M	F	M	F	M	F	M	F
Nom.	i	e	i	e	tē	tē	e/tē	e/tē
Acc.	tē	tē	e/tē	e/tē	tē	tē	e/tē	e/tē
Obl.	tē	tē	tē	sē/tē	tē	tē	tē	tē

The structure of the modified NP (as I shall argue) is as below:



What is crucial in this diagram is the right-branching structure, wherein the particle forms a constituent with its right sister, this constituent in turn being a sister of the head NP. Examples (20) through (23) provide evidence for this structure. First, (20) shows that when a modifier phrase occurs in predicate position, the particle occurs with it, which is consistent with the right-branching structure above, but not predicted by a left-branching or flat analysis. Moreover, the particle may not occur as a sister of the head NP, without modifier, as shown in (21).

(20) djali ēsht i zgjuar 'the boy is intelligent'

(21) \*[djali i] ēsht zgjuar 'the boy is intelligent'

Second, when modifier phrases are conjoined, each conjunct may have its own particle, as in (22); if the particle were part of the head, as in the left branching analysis, we would expect conjoined heads each to have particles, as in the ungrammatical example (23). Given the gpsg treatment of coordination, this is fairly conclusive evidence for the right-branching analysis.

(22) djali [[i mirē] dhe [i zgjuar]] 'the good and intelligent boy'

(23) \*[[djali i] dhe [vajza e]] mirē 'the good boy and girl'

A phenomenon like the closest conjunct principle arises when heads

are conjoined. In such cases, where a single modifier phrase is predicated of each conjoined head, the particle in the modifier phrase agrees with the conjunct closest to it, as shown in (24) and (25).

(24) [djali dhe vajza] [e/\*i/\*të kryetarit] 'the son and daughter of the president'

(25) [vajza dhe djali] [i/\*e/\*të kryetarit] 'the daughter and son of the president'

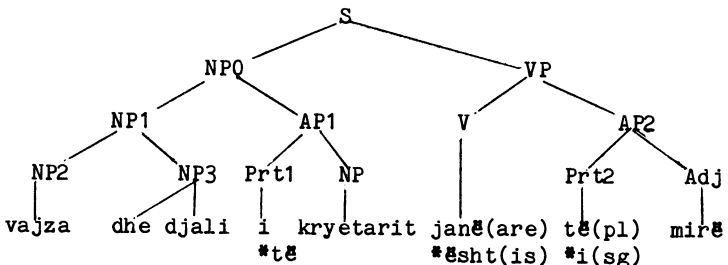
As was the case for English, we can construe the problem two ways, as in (a) and (b) below:

(a) Selection principles operate such that the modifier phrase (hence its particle) agrees with the coordinate NP 'djali dhe vajza'. Determination principles operate in such a fashion as to assign to the mother NP the agreement properties of its final conjunct head.

(b) Selection principles operate such that the modifier phrase agrees directly with the final conjunct daughter of the head NP.

Again, (b) raises serious difficulties for gpsg, since it involves elements not in the same rule. But there is some evidence that it is correct. This evidence arises in examples like (26), structured as shown (the categories are numbered for expository purposes, not bar level).<sup>3</sup>

(26) vajza dhe djali i kryetarit janë/\*është të/\*e/\*i mirë  
'the daughter and son of the president are good'



Here the verb ('janë') and a modifier particle (Prt2) in predicate position both take plural form even though the modifier particle (Prt1) within the subject NP0 is singular to agree with the final conjunct (NP3) of the subject. In view of this example, the choices are:

(a') Selection principles select NP0 as agreeing with VP

(hence ultimately with Prt2 and the verb), NP1 as agreeing with AP1 (hence Prt1). Determination principles apply to NP1 to assign it the agreement properties of its final conjunct. But notice that even though NP1 is singular, determination principles must assign plural number to its mother, NP0. In neither case does the Head Agreement Convention apply as formulated.

(b') Selection principles select NP3 (not NP1) as agreeing with AP1 (hence Prt1) and NP0 as agreeing with VP (hence Prt2 and V). Determination principles assign NP1, hence NP0, plural agreement, as the Head Feature Convention predicts. But this is inconsistent with gpsg, since selection principles must refer directly to NP3 and AP, which are not in the same rule.

In either case, there are severe difficulties for gpsg.

A second wrinkle of the particle problem, equally difficult for gpsg, is involved in those cells of the particle paradigm that contain two forms. The distribution of the two is not free, but is determined by syntactic features of context:

the left-most form in each cell (I shall call this the 'proximal' form) must occur when the particle immediately follows its lexical controller and is c-commanded by it; the right-most form (I shall call this the 'distal' form) must be used in all other contexts.

To make this clear I must first define 'lexical controller', then show some evidence that motivates the generalization just given.

Definition: An element a is a lexical controller (LC) of another element b just in case either

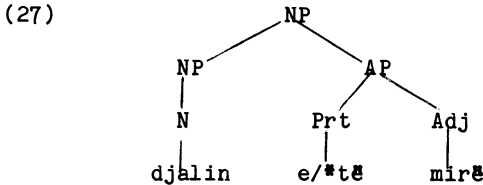
- (i) a is lexical (i.e. XO) AND
- (ii) b is controlled (in the sense of the Control Agreement Principle) by a's maximal projection (i.e. the highest phrase of which a is lexical head)

or

- (iii) there is some node c such that a is the lexical controller of c and b is dominated by a node whose maximal projection is c

Conditions (i) and (ii) say that the lexical head of an argument is the LC of the predicate phrase; (iii) extends the relation to certain nodes that the predicate phrase dominates. In NPs consisting of an NP and a modifier phrase, then, the head noun of the

modified NP will always be LC of the particle in the modifier phrase, by condition (iii). Then in the simplest instance of the particle construction, as exemplified in (27), the particle immediately follows and is c-commanded by its LC, hence must take proximal form.



But the particle may be separated from its LC, that is, not immediately following it, in a number of ways. A possessive pronoun may intervene, as in (28), where distal form is required.

(28) me djalin tim tē/\*e mirē 'with my good boy'

Regardless of whether the structure here is stacked, as in (28b), or flat, as in (28c), 'djalin' is LC of the particle. But the particle does not immediately follow its LC.

(28b) [[djalin tim] [tē mirē]]

(28c) [djalin tim [tē mirē]]

The particle may also be separated from its LC if there are elements in the modifier phrase that precede the particle, as in (29) and (30), where *shumē* ('very') and *mē* ('more') are the initial elements of the modifier phrase. In each of these cases the distal form of the particle is required.

(29) me [djalin [shumē tē/\*e mirē]] 'with the very good boy'

(30) me [djalin [mē tē/\*e mirē]] 'with the better/best boy'

The particle will be separated from its LC if the modifier phrase is a non-initial member of a stacked or sequential structure of modifier phrases. In such structures, the particle in the left-most modifier phrase will be proximal, if it is the left-most element in that phrase. All subsequent particles will be distal, as illustrated in (31) and (32).

(31) nē [[tē gjithē sektorēt] [e/\*tē ekonomisē]] 'in all sectors of the economy'

(32) nē [[tē gjithē sektorēt] [[e/\*tē ekonomisē] [dhe [tē/\*e kulturēs]]]] 'in all sectors of the economy and the culture'

Notice that if the head NP itself is coordinate, then each conjunct head is a LC by the maximal projection condition. Hence the lexical head of the final conjunct is an LC of, and c-commands, a

particle in a following modifier phrase, therefore requires the proximal form if the particle follows immediately, as in (33).

(33) [ekonomisë dhe kulturës] [së/\*të popullit tonë] '[the economy and the culture] [of our people]'

The particle can also be separated from its LC if the LC is not final in its phrase. This is illustrated nicely by the syntactic minimal pair in (34) and (35). If the sentence is to be interpreted in the way indicated by the bracketing in (34), such that 'of the Soviet Union' is predicated of 'minister of culture' (thus the reference is to the person who has the job of culture minister in the Soviet Union), then the particle takes the distal form 'të', since it is not adjacent to its LC, 'ministrin'. On the other hand, if the sentence is interpreted as in the bracketing in (35), such that it is Soviet culture that the person is minister of, then the particle takes the proximal form 'së', since it is immediately adjacent to and c-commanded by its LC, 'kulturës'.

(34) me [[ministrin e kulturës] [të/\*së Bashkimit Sovjetik]]  
'with [the culture minister] [of the soviet union]'

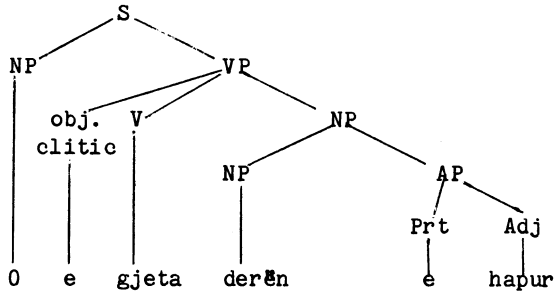
(35) me [ministrin [e [kulturës [së/\*të Bashkimit Sovjetik]]]] 'with [[the minister] [of [culture [of the soviet union]]]]'

The relevance of the c-command condition can be seen in another minimal pair, as in the difference between (36), structured as in (38), and (37), structured as in (39). In both cases, the modifier phrase containing the particle plus hapur ('open') is predicated of derën ('the door'). Hence there is agreement in both examples between the particle and its LC, as predicted by the Control Agreement Principle. But the two examples differ on the proximal/distal distinction. In (36), the particle is adjacent to the lexical head (derën), of the argument phrase, and c-commanded by it, hence takes proximal form. But in (37), though the particle immediately follows the lexical head of the argument phrase, it is not c-commanded by it, hence takes distal form.

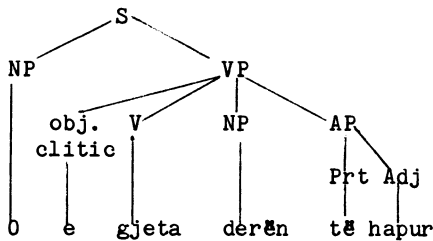
(36) e gjeta derën e hapur 'I found the open door'

(37) e gjeta derën të hapur 'I found the door open'

(38)



(39)



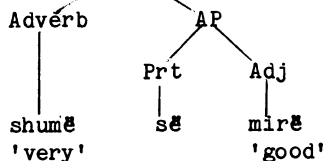
To sum up: The modifier particle presents two sets of problems. First, there is a phenomenon reminiscent of the closest conjunct problem for English, in which the particle agrees not with the coordinate NP of which it is predicated, but with the final conjunct of that NP. The strategy of marking the dominating NP to take the agreement markings of its final conjunct appears to be ruled out by the fact that the dominating NP must be marked plural in the usual way, in order to insure that the NP node that dominates it will be marked plural via the Head Feature Convention. Thus the problem seems to require agreement directly between nodes that are not sisters, hence not members of the same rule.

Second, there is a special case of particle suppletion that depends on whether the particle in question immediately follows and is c-commanded by the lexical head of its controller. This too seems to require an agreement principle that can refer directly to nodes that are not sisters, hence inconsistent with *gpsg*.<sup>4</sup>

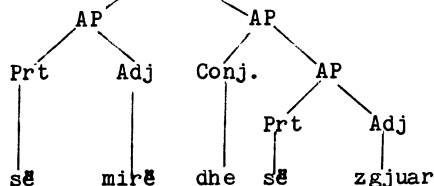
I cannot rule out the possibility of accounting for these cases (at least the latter one) with some ingenious use of new foot features, so that the principle could be stated as agreement between sisters. But consider what the foot features would have to encode to account for the second problem, and how complicated the inheritance principles would have to be. Presumably two features would be required, one feature to encode whether a given node had a proximal or distal particle as left-most leaf, and another feature to encode whether a NP had a lexical head as right-most leaf. But the inheritance principles would have to be such as to pass this feature value up only if the mother node had

as its left daughter a node marked plus for proximal-particle-as-left-leaf (or a right-most daughter marked for lexical-head-as-right-leaf); moreover, AP nodes dominating proximal particles that were not left-most, like the ungrammatical cases (40) and (41), would have to be marked as ungrammatical by some additional principle that would be faced with the same problems.

(40) AP[fem, obl, sg, def]



(41) AP[fem, obl, sg, def]



IV. Conclusion. There are two main points to draw from the data considered here. First, from the English data (discussed in greater detail in my earlier paper and in the agreement section in Quirk et al. 1972) is that there are (at least) two sets of conditions involved in agreement: semantic conditions and syntactic conditions. A treatment of the semantic conditions requires a treatment of the semantics of plurality, in a way consistent with complications of the data I have only alluded to here.

Second, from both the English and the Albanian data it appears that there are agreement phenomena that are inconsistent with the strict (CF PSG) interpretation of gpsg in requiring principles that refer directly to nodes that are not generated by the same PSG rule. A few more comments are in order on this topic.

There are a number of formal interpretations one might put on a gpsg meta-grammar. The one pushed hardest by advocates of gpsg is the CF PSG interpretation, wherein the meta-grammar is seen as an inductive definition of a set of CF PSG rules. The advantage of this interpretation depends entirely on the CF property: first, the CF interpretation allows an immediate assessment of the generative capacity of the theory: it is CF. Second, the fact that it is CF might be interpreted as a selling point of the theory, for linguists interested either in Chomskyan explanatory adequacy

or in psychological or computational problems of parsing. But it seems to me the importance of these advantages is over-rated. The measure of parsability of classes of languages is, as I understand it, a worst-case measure; there can be CS languages that are easier/faster to parse than some CF languages. The relevance of the CF-is-parsable argument is peripheral at best.

Furthermore, the CF PSG interpretation is a red herring for gpsg as a model of mental representation of grammar. Proponents of gpsg acknowledge that the full set CF PSG rules induced by a non-trivial meta-grammar might number in the millions of rules. It is therefore implausible to take the induced PSG itself as a mental representation of grammar. Then clearly it is the meta-grammar itself, not the induced PSG, that is of interest as a model of mental representation, the object of knowledge, the thing acquired by children and used in some fashion by adults. This is intuitively more consistent with an older (but now less emphasized) interpretation of a meta-grammar: as a set of rules that directly admit trees, hence sentences. On this interpretation, the PSG expansion scheme is merely a theoretical tool for measuring the generative capacity of the theory. Slight changes in the theory made for empirical reasons might raise its generative capacity above CF. The kinds of agreement principles I have argued for are likely to be of this nature. They can be stated as well-formedness conditions on trees, but involve nodes that may be widely separated in the tree, rather than standing in sister-sister or mother-daughter relations. One would, of course, hope to find narrow limits on rules of this kind, for example that the elements involved must be terminal.

The question is, then, how important is the loss of the magical CF property? I think it is not that important, in the face of the facts. There have been other arguments that some natural languages are not CF, Bresnan et al. (1982), for example. And the CF property seems to me to be altogether the wrong measure of theoretical interest of a theory. To my mind, what is of interest about gpsg is its single-level nature. At the very least it is a fascinating and important experiment in pursuit of the question, 'How much syntax can be accounted for, and how well, using a theory that has only one syntactic level?' The answer so far is, a surprising amount, and with many new insights. The problems I have presented in this paper, and the direction of the answers I've proposed, do not threaten that central aspect of the gpsg approach.

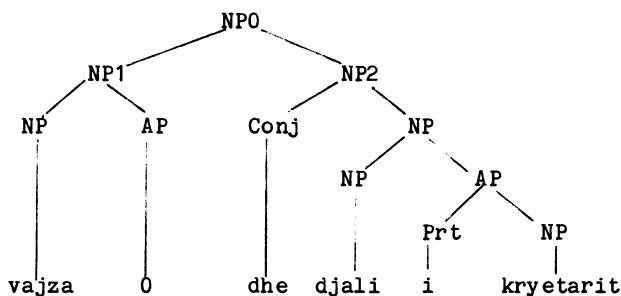
#### FOOTNOTES

1. I am grateful to Georgia Green and Steve Helmreich for comments on earlier versions of this paper, and to Professor Mehdi Hetemi of the University of Pristina for help in providing data. Other

crucial data in this paper are taken from Zëri i Popullit and from the book Në Hien e Hurmave. This research was supported in part by National Science Foundation Grant NSF IST 81-17238 to the University of Illinois.

2. Recent reformulations of these principles (e.g. Sag et al., ms.) do not overcome the problems raised here, as far as I can see.

3. If NPO of (26) is not structured as shown, but as below, then the problem becomes one of blocking the ungrammatical structure that is just like the one proposed in the text for NPO, except that Prt1 is plural.



4. One might be tempted to look for a phonological treatment of the alternation, to rid the syntax of this problem. But a phonological treatment is extremely implausible. The rules that would be involved do not resemble any phonological process that is independently motivated for Albanian, and in fact there are surface counter-examples within the particle system itself to any kind of phonological conditioning one might appeal to. For example, 'e' and 'të' alternate as proximal and distal forms (e.g. for feminine singular accusative definite), but the single (both proximal and distal) form for feminine singular nominative definite is 'e'. Thus (i), (ii) and (iii) constitute a counter-example to any attempt for derive 'të' from 'e' in certain phonological environments; in those same environments, fem. sg. nom. def. 'e' remains 'e'.

(i) vajza e/\*të mirë 'the good girl'

(ii) vajza ime e/\*të mirë 'my good girl'

(iii) vajza e mirë dhe e/\*të dashur 'the good and dear girl'

Deriving 'e' from 'të' would fail for similar reasons. Nonetheless, it may well be that the alternation was originally a phonological one. I should also point out that a similar (though not identical) pattern occurs in possessive pronouns. Thus there are

proximal/distal alternations like ime/time/sime, ('my'). It seems clear that these pronoun alternations arose historically through fusion of the particle with a following pronoun form; indeed in plural forms the particle and pronoun are still separate. But there are some differences between the particle alternations and the corresponding fused pronoun alternations; e.g. to the e/t alternation for singular definite accusative particles there corresponds a single pronoun form, time.

## REFERENCES

- Bresnan, Joan, Ronald M. Kaplan, Stanley Peters, and Annie Zaenen (1982) Cross-serial dependencies in Dutch. Linguistic Inquiry, volume 13, number 4.
- Gazdar, Gerald and Geoffrey Pullum (1982) Generalized phrase structure grammar: a theoretical synopsis. Mimeo, Indiana University Linguistics Club.
- Morgan, Jerry (1972) Verb agreement as a rule of English. In P. Peranteau, J. Levi and G. Phares (eds.) Papers from the eighth regional meeting, Chicago Linguistic Society. Chicago: CLS.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik (1972) A grammar of contemporary English. New York: Seminar Press.
- Sag, Ivan, Gerald Gazdar, Tom Wasow and Steven Weisler (ms) Coordination and how to distinguish categories. Unpublished manuscript.