

ON THE NOTION OF SUBJECT IN ERGATIVE LANGUAGES*

by

Stephen R. Anderson

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In traditional grammar, syntactic analysis is almost exclusively based on categories revealed directly in surface structures. In particular, morphologically unified categories of constituents are often taken to be the only ones that could possibly have any importance for the description of sentence structures. If a notion like "subject of" is to have any syntactic importance, then, it must be possible to associate it with a category of the language's morphology. In most of the familiar languages of Europe which form the basis for this tradition, it is fairly easy to provide some set of morphological criteria which will (perhaps with a little fudging, such as the introduction of "notional" categories) pick out just the class of subjects which seems syntactically significant. The question of whether these properties actually have anything essential to do with "subjectness" or not, however, is seldom raised: having served their purpose, they are assumed ipso facto to be significant.

A major problem with the assumption that morphology will reveal the important categories of syntactic structure directly has long been the existence of ergative languages. In such languages, the morphological category to which the subject NP of an intransitive verb belongs is shared not with the NP we expect to be subject of a transitive verb, but rather with the NP we expect to be object of that verb. "Subjects" thus belong to different categories depending on the transitivity of the verb. This by itself would not be so important, were it not for the fact that the morphology appears to establish the existence of a category which includes subjects of some verbs, and objects, but not subjects of other verbs. This situation has engendered a vast literature, devoted to the question of whether ergative languages are or are not fundamentally different in syntactic structure from accusative languages.

The morphological identification involved may be in terms of any of the usual devices for marking grammatical function, case marking and verb agreement being by far the most general. A language in which ergativity is indicated by case marking alone is Tongan:

- 1 a. na'e lea 'a etalavou
 past speak abs young man
 "the young man spoke"
- b. na'e alu 'a tevita ki fisi
 past go abs David to Fiji
 "David went to Fiji"

- c. na'e tamate'i 'a kolaiate 'e tevita
past kill abs Goliath erg David
"David killed Goliath"
- d. na'e ma'u 'e siale 'a e me'a'ofa
past receive erg Charlie abs def gift
"Charlie received the gift"

Case marking is combined with verb agreement to establish the categories of ergative and absolutive in Avar:

- 2 a. vas v-eker-ula
boy m-run-pres
"the boy runs"
- b. jas j-eker-ula
girl f-run-pres
"the girl runs"
- c. vas-al r-eker-ula
boy-pl pl-run-pres
"the boys run"
- d. ins:u-c:a jaš j-ec:-ula
father-erg girl f-praise-pres
"the father praises the daughter"
- e. vas-as: šisa b-ek-ana
boy-erg bottle n-break-past
"the boy broke the bottle"
- f. vas-as: šusbi r-ek-ana
boy-erg bottles pl-break-past
"the boy broke the bottles"

In some languages, case marking is absent, but the verb may agree with a number of distinct NPs. In that case, the agreement pattern may establish ergative and absolutive categories, as in Abaza:

- 3 a. a-ph^oes d-qa-c^o'a-d
def-woman 3-hither-sit-past(act)
"the woman sat up"
- b. a-ph^oes a-qac'a d-1-šá-d
def-woman def-man 3-3f-kill-past(act)
"the woman killed the man"

Distinct case marking and agreement can of course be combined to form even more elaborate systems, such as that of Basque.

The sort of (morphologically) ergative language we are concerned with here should be distinguished from two other possible systems, both of which have sometimes been brought

into the discussion of ergativity. One of these is the (rare) case where all three possible roles for NP are morphologically distinct, as in Motu:

- 4 a. mero na e gini-mu
boy S_i 3sg stand-imperf
"the boy is standing"
- b. mero ese aniani e heni-gu
boy S_t food 3sg give-me
"the boy gave me food"

In this case, there is no morphological basis (with the possible exception of the verbal clitic) for either NP in a transitive clause being identified with the subject NP in an intransitive clause.

Another situation distinct from that which concerns us is the existence of languages in which agent subjects are distinguished from patients, in a way which sometimes looks like the pattern of an ergative language. The most famous example of this type is Dakota; another is Wichita:

- 5 a. ta-t-?i:y-s [tac?i:ys]
nonfut-I-see-imperf "I saw (him)"
- b. ta-ki-?i:y-s [taki?i:ys]
nonfut-me-see-imperf "(he) saw me"
- c. ta-t-hisa [tachish]
nonfut-I-go "I went"
- d. ta-ki-hiya:s [takihiya:s]
nonfut-me-hungry "I am hungry"

A similar situation apparently obtains in the Northeast Caucasian language Bats:

- 6 a. as jopst' axo
I plow land
"I plow the land"
- b. as wože
I fall
"I fell (on purpose)"
- c. so wože
me fall
"I fell (e.g., by accident)"

We will have nothing further to say about either of the situations just exemplified, which we would like to distinguish from the case of ergative languages.

From the fact that the usual notion of subject cannot be given a firm morphological foundation in an ergative language, many traditional writers have drawn radical conclusions about the typological characteristics of ergative languages. In the well-known languages of accusative type, we can distinguish (at least) two fundamental grammatical relations which are basic to clause structure: subjects, and (direct) objects. Whether these are to be defined in terms of Phrase-Marker configurations (as suggested in *Aspects*), taken directly as primitives of clause structure (as proposed in *Relational Grammar*), or some other alternative is not relevant: the important point is that these two relations can be distinguished and are fundamental to the structure of sentences. This structure we can take as typologically characteristic of accusative languages.

One way to resolve the problem that the same notions cannot be founded morphologically in an ergative language is simply to deny that there are any grammatical relations basic to clause structure in such a language. A clause contains, on this view, a verb and a collection of NP: no NP is structurally distinct from any other in a syntactic sense. There are certainly relations between these NP and the verb, but these are taken to be semantic in nature, and all of the NP involved are syntactically equivalent. This view is associated with the claim that in an ergative language, as opposed to an accusative one, the verb is "polypersonal" (i.e., relates equally to several NP at a time). Such a nihilist solution is only possible, of course, if one disregards most of what falls in the domain of syntax in contemporary views: any syntactic process which applies differentially to some but not all NP according to a specific pattern would disconfirm the notion that all are structurally parallel.

A view which is closely related to that just mentioned is found in the works of a number of writers, beginning in the early nineteenth century. This is the view that the structure of the sentence in an ergative language is not to be distinguished from that of the Noun Phrase. On this view, there is only one significant grammatical relation, common to both NP and clause: this is the relation of modifier to head. A clause is thus provided with some internal structure, of a simple hierarchical sort. This view is proposed most recently by Martinet and his student C. Tchekoff. Disconfirming evidence can be provided by showing fundamental syntactic differences between NP and clause, and by showing that the syntactic function of a NP within a clause depends not only on the fact that it is a "modifier," but also on what kind of "modifier" it is. Any process which treats subjects and ob-

jects as distinct relations, that is, would be inconsistent with this view.

By far the most common view of ergative languages, however, originates at least as early as the work of Schuchardt. This is the notion that the clause in an ergative language is (if transitive) "passive" in nature. The structural positions of subject and object are distinct on this view, but in a transitive clause the NP occupying the subject position is the one corresponding to an accusative object, while the NP corresponding to a (nominative) subject is in an oblique relation of some sort. This structure is, of course, exactly that which is produced by the operation of a passive rule in languages like English: the claim here is that in an ergative language it is basic. A variant of this view, proposed by Hale, is that the rule corresponding to the English passive is obligatory in an ergative language.

This position has the merit, of course, of providing a rationalization for the morphology. The morphologically unitary category of absolutive corresponds directly to the syntactic relation of subject. Such a view has been proposed within the context of generative grammar by DeRijk, and more recently by Culicover and Wexler. If ergative languages are in fact radically distinct from accusative languages in syntactic structure, this is probably the most plausible view of the nature of that difference.

Of course, as long as we confine ourselves to the analysis of surface structures (and their morphological characterization in particular), since all of the above views are at least internally consistent any of them is possible. In contemporary syntactic theory, however, the basic features of clause structure are much more than a foundation for morphological categories. As pointed out by a number of authors (most extensively by Keenan, in his contribution to this symposium), subjecthood is related to a wide variety of other syntactic and semantic properties. The best understood of these, probably, are the roles of various grammatical relations in the structural descriptions of the major cyclic syntactic rules, such as Equi-NP Deletion, Raising, reflexive, conjunction formation, etc. The fundamental nature of grammatical relations in determining the operation of these rules (while it has been denied by some) has been argued for in a number of works.

Given the result that a rich array of syntactic processes are sensitive to the internal structure of clauses, we have a ready tool for evaluating the theories of the syntax of ergative languages discussed above. We can look beyond the morphology, to the rules of the syntax in such a language.

If we discover that NP in a particular category (e.g., absolutes) play the same role in the syntactic processes of an ergative language that subjects do in an accusative language, it would be appropriate to designate this category as subject, even though the subject of a sentence in an ergative language might then not correspond to the subject in its analog in an accusative language. If, however, we find that there is no morphological category which contains all and only subjects in this sense, but rather the NP which serve as "subjects" for such rules as Equi-NP deletion, Reflexive, etc. are generally those corresponding to subjects in accusative languages, it would be plausible to say that these are indeed subjects despite the morphology. We suggest, that is, that the syntactic concept "subject" ought to be identified by syntactic means (in particular, the role of an NP in those transformational processes which seem most sensitive to grammatical relations); the more straightforward the correspondence between such syntactically defined categories and those of surface morphology the better, of course, but this is definitely a secondary consideration.

How, then, do subjects behave distinctively in an accusative language? English is, of course, the best investigated from this point of view, but a consideration of others shows that it is in no important way atypical. For example, the rule of Equi-NP deletion deletes the subject of an embedding under identity with the controlling NP in the matrix clause. There is a certain amount of controversy over the way in which the correct controller is to be identified, but there is no disagreement over the fact that it is the subject and no other NP in the lower clause which is deleted. Thus, though 7a,b are well-formed, 7c is impossible: despite the identity between the lower object and the controller, no deletion is possible.

- 7 a. John wants to laugh
 b. John wants to stop violence
 c. John wants Bill to tickle *(him)

Furthermore, it is the syntactic relation of subject, rather than an underlying (and hence possibly semantic) relation, which is relevant here. The rule of passive changes grammatical relations, so that what was originally subject becomes an oblique NP while the original object becomes a subject. If passive has applied, 8a (analogous to 7c) is possible, while 8b (well-formed if passive had not applied) becomes impossible:

- 8 a. John wants to be tickled by Bill
 b. John wants Bill to be tickled (*=by him)

Analogous remarks apply to the rule of Raising. With verbs like seem, subjects raise but nothing else:

- 9 a. John seems to be laughing
 b. John seems to be getting the job
 c. *John seems for something to be bothering (him)
 d. John seems to have been tattooed by a Dayak

It might be claimed that the existence of a rule raising objects vitiates this point, but in fact it strengthens it. With those verbs for which objects can raise, it is exactly the class of non-subjects which can undergo the rule:

- 10 a. Fred is tough to catch
 b. Harry is tough to write letters to
 c. Bars are tough to think about metaphysics in
 d. Metaphysics is tough to think about in bars
 e. *John is tough to laugh
 f. *Bill is tough to convince John
 g. *Max is tough to be tackled by a linebacker

Thus object-raising is just as sensitive to the distinction between subjects and non-subjects as subject raising is.

Conjunction formation (whether by reduction or some other process) is another rule which is sensitive to grammatical relations. A well formed conjunction of two clauses can result when there is a shared chunk of material common to them both, but only when this material fills the same syntactic role in both:

- 11 a. John and Bill are laughing
 b. John and Bill both keep bears
 c. John bought a banana and sold his old rutabaga
 d. John bought the last rutabaga and gloated
 e. Bill came in and ate John's rutabaga
 f. *John likes but rutabagas disagree with him
 g. *John likes rutabagas but disagree with him
 h. *Rutabagas grow around here, but John hates

Essentially, subjects count as the same syntactic role regardless of the transitivity of their associated verbs, while no subject counts as filling the same role as an object.

Reflexive is somewhat complicated in English by conditions which are more sensitive to order than to grammatical relations; accordingly the same point cannot be illustrated for this rule without looking at other languages. A language like Danish, however, shows the cross-linguistically more natural situation. Reflexives (both the ordinary object reflexive pronoun sig and the possessive reflexive sin/sit) necessarily have the subject as their antecedent:

- 12 a. Jørgen så sig i spejlet
(name) saw refl. in mirror-def
"Jørgen looked at himself in the mirror"
- b. *Sig så Jørgen i spejlet
- c. *Sig blev set i spejlet (af Jørgen)
was seen by
- d. Rasmus leger med sin dukke
(name) plays with refl doll
"Rasmus is playing with his doll"
- e. Rasmus slog Sigrid med sin dukke
(name) hit (name) with refl doll
"Rasmus hit Sigrid with his doll"
*"Rasmus hit Sigrid with her doll"

This situation is, of course, familiar from a great many other languages.

The above remarks are, of course, perfectly familiar to anyone with the slightest acquaintance with syntactic research. It is worth emphasizing, however, that the rules above provide a consistent and worthwhile criterion for syntactic subjecthood. This kind of fact is the basis of relational grammar, where syntactic processes are stated directly in terms of grammatical relations (rather than in terms of linear order and immediate constituency). It can be shown that some such move is required since analogous facts obtain under circumstances where order and constituent structure give incorrect or insufficient definitions of the relevant NP. We assume, therefore, that it is valid to base a syntactic notion of subject in an unfamiliar language on the differential behavior of NP with respect to such rules as those just noted. Naturally, this move is based on fairly strong assumptions about syntactic universality, but these seem validated by the facts of a wide variety of languages, in which these rules are remarkably stable and consistent.

When we apply the proposed test to ergative languages, then, we might find several different situations. If we were to find that, in such languages, NP are never subject to rules such as those just discussed, we would be justified in saying that no such relation as that of subject is defined in such languages. This would be consistent with the first view sketched above, on which there are no grammatical relations in clause structures in such languages. If, on the other hand, we found such rules, but found that all NP were functionally the same with regard to them, this would justify the claim (implicit in the second view sketched above) that there is just one structurally important grammatical relation in

such a language, and all NP bear this relation within the clause. If, as a third possibility, we found that the NP which function as syntactic subjects in this sense are those corresponding to the subjects of intransitive verbs, but to the objects of transitive verbs, this would justify something along the lines of the underlying or obligatory passive theory. If, as a final possibility, we find that the same NP function in the same ways in an ergative language as in an accusative language, this would suggest that the notion of subject which is syntactically relevant is the same in both types, and the morphology is a misleading indicator of syntactic function in ergative languages.

In the overwhelming majority of ergative languages, what actually happens is consistent only with this last possibility. Ergative languages do indeed have rules like Equi-NP deletion, subject raising, reflexive, conjunction formation, etc.; and furthermore the NP which function as syntactic subjects in these rules are just the same as those which serve as subjects in the corresponding clauses and constructions in accusative languages. For instance, in Basque there is a process quite analogous to English Equi-NP deletion. With a verbal expression such as *nahi du* "he wants (lit. he has desire of it)," complements where no identity obtains appear in a full form, with a subjunctive auxiliary agreeing (like other Basque auxiliaries) with subject and (if present) object:

- 13 a. nahi dute jauts gaiten
desire they-have-it come down we-subjective
"they want us to come down"
- b. nahi dut egin dezan
desire I-have-it do he-subjunctive-it
"I want him to do it"

Non-emphatic pronouns in Basque are generally deleted; in 14 below, there is no overt subject in the complement clause. Nonetheless, the fact that the clause has the form with subjunctive auxiliary, as in 13, shows that the subject of the complement cannot be identical with that of the matrix clause:

- 14 nahi du egin dezan
desire he-has-it do he-subjunctive-it
"He_i wants him_j to do it"
*"He wants to do it"

When the subject of the lower clause (in the same sense as in an accusative language) is identical with the controller in a

higher clause, the deletion is not optional, but obligatory; and it is accompanied by loss of the auxiliary and reduction of the verb to the infinitive (perhaps marked with a case ending).

- 15 a. nahi dut joan
desire I-have-it go-infinitive
"I want to go"
- b. nahi dut egin
desire I-have-it do-infinitive
"I want to do it"

When there is an overt object present in the lower clause, and this rule of Equi-NP deletion applies, the remaining object may undergo one of two processes: either it may be converted to a genitive, as in 16a, or it may be raised into the matrix clause as in 16b, with the result that the matrix verb comes to agree with it.

- 16 a. nahi dut txakurraren hil
desire I-have-it dog-def-gen kill
"I want to kill the dog"
- b. liburu hoik irakurtzerat noatza
book those read-infin-to I-go-them
"I am going (in order) to read those books"

The operation of Equi-NP deletion does not depend on the transitivity of the higher verb; both transitive verbs, like 'want' and intransitive ones, like 'go' can control the rule. Notice, however, that it is always subjects which are deleted, in an accusative sense: identity of the higher controller with the object of the lower clause can never allow equi:

- 17 a. dantzatzerat joan da
dance-infin-to go he-is
"he has gone to dance"
- b. txakurraren hiltzera joan nintzen
dog-def-gen kill-infin-to go I-was
"I went to kill the dog"
- c. ikhusterat joan da
see-infin-to go he-is
"He_i has gone to see him_j"
*"He_i has gone for him_j to see him_i"

The rule of cf Equi in Basque, then, is sensitive to the same notion of subject as in English, and not sensitive to a notion of subject that would correspond with the morphologi-

cal category of absolutes.

In Tongan, there is a rule of subject raising which applies with a very limited class of verbs to promote the lower subject into the matrix clause:

- 18 a. 'oku lava ke hū 'a mele ki hono fale
pres possible tns enter abs Mary to his house
"It is possible for Mary to enter his house"
- b. 'oku lava 'a mele 'o hū ki hono fale
pres possible abs Mary tns enter to his house
"Mary can enter his house"

In 18b, the subject 'a mele has been raised from the lower clause. The rule is also applicable to transitive embeddings:

- 19 a. 'oku lava ke taa'i 'e siale 'a e fefine
pres possible tns hit erg Charlie abs def woman
"It is possible for Charlie to hit the woman"
- b. 'oku lava 'e siale 'o taa'i 'a e fefine
pres possible erg Charlie tns hit abs def woman
"Charlie can hit the woman"

The fact that the subject 'e siale originated in the embedding is shown clearly here by the fact that it is marked ergative. Subjects thus can be raised out of the complements of lava 'be possible' regardless of transitivity. Non-subjects, however, cannot be raised even if they are morphological absolutes:

- 20 *'oku lava 'a e fefine 'o taa'i 'e siale
pres possible abs def woman tns hit erg Charlie
"The woman can be hit (by Charlie)"

Tongan subject raising, then, only applies to subjects in the same sense as English subject raising. (I owe these facts to Sandra Chung.)

Conjunction formation is somewhat harder to illustrate than the other rules considered to this point. Many languages allow free conjoining, and then simply delete NP under conditions of ordinary discourse anaphora. In languages where pronominalization is by deletion, then, the process of conjunction formation is much less (if at all) sensitive to grammatical relations. One language in which grammatical relations do play a role, however, is the New Guinea language Kâte. In this language, subjects of transitive verbs are usually marked with an ergative particle -ki. A primary syntactic process in Kâte, as in other New Guinea languages, is the chaining of clauses with a common topic by means of a form of conjunction. Where several clauses are conjoined in

this way, all but the last are marked with special subordinate verb forms which indicate the relation of this clause to the following ones, rather than directly distinguishing the tense/aspect combinations marked on 'main' verbs. In addition, where two clauses have the same subject, the first takes an inflectional form that does not indicate the person and number of the subject. 'Main' verbs and subordinate verbs whose subjects are not identical with those of a following clause are marked for these categories. The important point to note is that, although the NP morphology of Kâte makes it an ergative language, the notion of subject which is relevant for the conjoining process is the same as that in accusative languages. The ergative subject of a transitive verb counts as subject, as does the absolutive subject of an intransitive, while the absolutive object of a transitive does not count as subject.

- 21 a. vale-la nana na-la be? guy fo-ve?
 come-past taro eat-past pig sleep lie-3sgpast
 "the pig came, ate taro, and lay down to sleep"
- b. vale-la be?-ko nana na-ve?
 come-past pig-erg taro eat-3sgPast
 "the pig came and ate taro"
- c. mu-pe kpatala-me hane?ke-pe
 speak-1sSPast retort-3sSPast tease-1sSPast
 kio-ve
 cry-3sPast
 "I spoke and he retorted and I teased him and he cried"
- d. *go-ki (be?) hone-la (be?) gesa?ke-ve
 you-erg pig see-past pig run-3sPast
 "You saw a pig and he ran"

In 21a,b the subjects of the conjoined clauses are all the same, and accordingly do not appear except in the last clause. Regardless of whether they appear as ergative or absolutive, the inflections on the preceding clauses show no indication of person. In 21c, the verb forms show person and number, as well as (subordinated) tense relationship, since the subjects of adjacent clauses are distinct. In 21d we see that person marking cannot be omitted from the first conjunct despite the fact that its (morphologically absolutive) object is identical with the (morphologically absolutive) subject of the second clause.

The behavior of reflexive with respect to case marking is sometimes difficult to determine, since it is fairly common

for reflexive clauses to be treated as structurally intransitive. When that happens, it is impossible to determine whether reflexivization has gone "from" the ergative NP "to" the absolutive NP, or vice versa. Where we can determine a direction, however, it is generally clear that it is the (absolutive) direct object NP of a transitive clause that has undergone reflexivization. An example of this can be found in the Abkhazian languages of the Northwest Caucasian group. In the form of Abaza described by W.S. Allen, there is a verbal agreement marker /c-/ which specifically marks reflexives. This index replaces that in the first position of the verb when reflexivization takes place. The reflexive marker /c-/ is distinct from the normal verbal index (/d-/) which marks third person animate nouns in the corresponding position in non-reflexive clauses:

- 22 a. c-1-ba-x-d
 refl-3sgf-see-back(iterative marker)-past
 "she saw herself (e.g., in a mirror)"
- b. d-1-ba-x-d
 3sga-3sgf-see-back-past
 "she saw him/her (again, in return)"

Despite the fact that the Abkhazian languages (together with the other Northwest Caucasian languages) show a distinctly ergative pattern of verbal agreement, the direction of reflexivization is that which we would expect for an accusative language: it is the index corresponding to the object NP which is replaced by a reflexive form, while the index corresponding to the subject NP remains. Note in particular that it is not the case that the index corresponding to the absolutive NP serves as antecedent.

Interestingly enough, in related Abkhazian dialects there are two other reflexive constructions which differ from that in 22a, but which also show the same directionality. In a form of Abkhaz described by Lomtadze, the reflexive NP index is replaced by the root \check{c} , together with a possessive prefix, the combination being incorporated into the verb in the position of the object prefix (a process abundantly attested elsewhere in the Northwest Caucasian verbal system):

- 23 a. 1- \check{c} o-1-s-wa-yt'
 3sgf-self-3sgf-kill-active-pres
 "she kills herself"
- b. s- \check{c} o-s-s-wa-yt'
 1sg-self-1sg-kill-active-pres
 "I kill myself"

In these forms, the first index is a possessive marker, associated as a unit with c; the next index is that corresponding to the subject.

Yet another construction is attested in the form of Abkhaz described by Dumezil. Here, the reflexivized NP can be replaced by an expression which means literally "NP's head"; the corresponding verbal index simply becomes third person singular inanimate, in agreement with such an expression:

- 24 a. 1-xe y-1-ba-yt'
 3sgf-head 3sgn-3sgf-see-pres
 "she sees herself"
- b. s-xe y-z-ba-yt'
 1sg-head 3sgn-1sg-see-pres
 "I see myself"
- c. s-xe s-a-s-wa-yt'
 1sg-head 1sg-3sgn-hit-active-pres
 "I hit myself"

The form in 24c involves the verb s "hit," which is from another class than that of ba "see." While verbs like ba take the basic transitive format, with object in first intraverbal position, verbs like s put their object index in second position. As will be discussed below, these verbs are actually to be construed not as transitives, but as intransitives taking an indirect object. The interest of 24c at this point, however, is that it is like all of the other reflexives we have seen, in that it is the NP corresponding to the object which is replaced by a reflexive form, while the NP corresponding to the subject serves as the antecedent of the reflexivization.

Rules such as those we have been considering, when investigated in virtually any ergative language, point unambiguously in the direction we have indicated. They show, that is, that from a syntactic point of view these languages are organized in the same way as are accusative languages, and that the basically syntactic notion of 'subject' has essentially the same reference in both language types. The difference is simply that the correspondence between syntactic and morphological categories is more straightforward in an accusative language than in an ergative one: in the latter, the transitivity of the verb, as well as the grammatical relation a NP bears to it, is relevant to the determining of case marking and agreement patterns. The radical proposals reviewed above for the syntax of ergativity, then, are disconfirmed by the syntactic facts, and this "fundamental"

typological parameter is reduced to a comparatively trivial fact about morphology.

If one were determined to reject that conclusion, he might argue that (for some reason not immediately evident) the proposed notion of "subject" is not readily capable of revealing a basic distinction between accusative and ergative systems. It might be that the rules in question are based on something quite different from syntactic grammatical relations, and that it is for this reason that ergative and accusative languages do not turn out to differ significantly.

This objection is shown to be false, and the notion of ergativity is shown to be potentially more significant, by the existence of at least a handful of exceptions to the generalization made above. For at least two languages, that is (Dyirbal, an Australian language discussed by Dixon; and Hurrian, a language of the ancient Near East), the test proposed above gives the opposite result. These languages have a rule of Equi-NP deletion, but instead of deleting subjects in the accusative sense, the rule deletes the NP which would be subject of an intransitive verb or object of a transitive. Dyirbal at least also has a rule of conjunction formation which treats intransitive subjects and direct objects as functionally the same relation, and distinguishes them from transitive objects. Furthermore, both Dyirbal and Hurrian have a restriction on the formation of relative clauses, that the NP relativized must be the absolutive of the relative clause. As Ross and, later, Keenan and Comrie have shown, languages often have a restriction that only subjects can be relativized. If the relativization of objects is allowed, then subjects are relativizable too. This is exactly what does happen in Dyirbal and Hurrian, if one takes the view that their grammatical relations are the same as those of an accusative language; but if one takes the position that the NP which is (for full nouns) in the absolutive (as opposed to the ergative) is the syntactic subject, these languages can be brought into line with universal grammatical theory. For these languages, then, something like the "underlying passive" theory appears to be correct (though it should be noted that Dyirbal, at least, has a rule which has an effect on syntactic structures entirely analogous to that of the passive in accusative languages).

We might argue that in these cases, the rules are not really looking at syntactic structures at all, but simply at morphological form (since for most NP, absolutes have the same form, and this is different from that given to ergatives). This resolution will not do, however. Dyirbal has the interesting property that while full NP are marked as

absolute vs. ergative, pronouns are marked as nominative vs. accusative. Nonetheless, the same facts obtain for pronouns as for nouns, as far as syntactic behavior is concerned: the morphologically diverse class of (nominative) intransitive subject and (accusative) direct object, as opposed to the morphologically uniform class of nominative subjects functions as the class of "subjects" for the purpose of the syntactic rules of the language. We must conclude, therefore, that Dyirbal is really ergative in a fundamentally syntactic sense, while most other morphologically ergative languages are ergative only superficially: in syntactic terms, they are accusative.

We can conclude, therefore, that morphological patterns are not a reliable guide to syntactic structure. A syntactic typology based on morphology cannot be adequate then. Of course, this leaves us with the obligation to provide an alternative account of the basis of morphological categories. If they are not based in a more or less one-to-one fashion on syntactic categories, how are they assigned?

We might well suspect that morphological differences (at least such distinctions as accusative vs. ergative case marking patterns) are somewhat superficial, since it is well known that languages are often of mixed type. In some languages, for instance, transitive clauses whose verb is in a perfect or past tense have ergative case marking, while clauses in imperfect or non-past tenses have accusative form. Or, as noted above, there are languages in which pronouns and full NP follow different patterns. These differences are not reflected by differences in the operation of syntactic rules, and necessarily suggest that (at least) one or the other morphological pattern is syntactically misleading.

In fact, it is not hard to construct an alternative to the traditional view that morphological categories are assigned directly on the basis of grammatical relations. Let us first distinguish "direct-case" NP in a clause (basically, subjects and objects) from "oblique" NP (adverbials, prepositional phrases, and other NP typically marked with oblique cases; as well as "oblique" uses of direct case forms, such as the accusative of duration, etc.). If we then assume that (at least at the point at which case marking takes place) the NP within a clause appear in some basic order (for concreteness, let us assume that subject precedes object), we can imagine two similar sorts of case marking rule that can give quite different results. Note first that the languages with which we are concerned have two properties, at least usually: they allow fairly free scrambling, and insofar as a basic order can be established, it is one with the verb in either

initial or final position. Clearly, the function of case marking in such a language is to allow the recovery of the distinction between subject and object in transitive clauses, since (a) this is not indicated by position relative to the verb; and (b) scrambling removes any other trace of the distinction, in the absence of overt morphological marks. One way to accomplish the differentiation of subject and object is to have a case-marking rule that says "put the subject in one case, the object in another." For syntactically accusative languages, this will always give accusative morphology. Another equally good way of accomplishing the function of case marking, however, would be to have a rule that says "when there are two direct-case NP in a clause, put a special mark on the one which comes first (or alternatively, on the one which comes second)." In that case, if it is the second NP which is distinctively marked, the resultant pattern is accusative; but if it is the first NP which is marked, the pattern is an ergative one (the absence of a mark constituting the "nominative" or "absolute" form).

Such a trivial distinction between two possible case marking rules obviously has no implications for the syntactic organization of the language. If we say that morphological ergativity arises in this way, then, we have a perfect account of the fact that ergative and accusative languages have (generally) the same sort of syntactic organization. We can go further, and suggest that what has happened in Dyirbal is the following: an originally superficial ergative case marking pattern has been re-interpreted as if it were assigned by a rule which depends directly on grammatical relations. This has resulted in a wholesale re-organization of the syntactic operations of the language, so that the same rules remain, but the "subjects" to which they apply are now those NP on which absolute case marking (for full NP) could be based.

While fundamentally syntactic in nature, the notion of "subject" is clearly related to morphological considerations in most languages. For that reason, a view such as that above, on which the notion of subject in (most) ergative languages is the same as in accusative languages, must be supplemented with an account of the basis for morphological patterns. We have sketched such an account above, and tried to make it plausible; to justify it in detail would be beyond the scope of this paper.

We can note, however, a way in which this theory of morphological marking makes different claims about language than does one in which case marking is dependent directly on grammatical relations. On this theory, that is, case-marking in transitive clauses is crucially dependent on the presence of

two direct-case NP in the clause at the time case-marking applies. Suppose that, in some language, one of these NP disappears prior to the operation of case-marking. In that event, the remaining NP will no longer be eligible for assignment to the ergative (or to the accusative) case, regardless of its grammatical relation to the verb. Such an event would require, on a theory whereby case marking is based directly on grammatical relations, a separate operation to change the relational structure of the clause. In the absence of motivation for such a separate operation, such a situation would furnish strong motivation for the theory of morphology we have sketched above.

In fact, such situations are not particularly difficult to find. In ergative languages, it is often the case that rules eliminating the object of a transitive clause exist. These include reflexive, indefinite object deletion, and generic object incorporation. In most ergative languages, when one of these operations has applied, the resultant clause is case-marked as if it were intransitive (i.e., the subject fails to be assigned to the ergative case). In accusative languages, on the other hand, there are rules which eliminate the subject, such as imperative formation and the formation of impersonal infinitives. There are several languages, in fact, where the object of a verb which has undergone such a process comes to function like the subject of an intransitive, either in being assigned to the nominative or even in triggering agreement. In none of the above cases (of either type) is there any motivation (beside the morphology) for an operation which alters grammatical relations as a consequence of the removal of the subject or object from the clause. As a result, they all furnish evidence for the theory of morphological marking processes we have outlined above. Note, incidentally, that the absence of such evidence in any given language is irrelevant: we need only say that, in such a language, object deletion, imperative formation, etc. follows case marking rather than preceding it. The presence of such evidence in any language, on the other hand, is not easily explicable on the traditional grammatical-relations based view of case marking and agreement.

Having discussed the correspondence between morphology and syntax in ergative languages, there is one further proposal concerning ergativity that should be noted briefly. As we remarked above, the languages of the Northwest Caucasian group display two distinct constructions for transitive verbs:

- 25 a. bojetsi-m gamemk'e piji-r iwik'ir
warrior-erg dagger-instr enemy-abs killed
"the warrior killed the enemy with his dagger"

- b. bojetsi-r gamemk'e piji-m jepidzi
warrior-abs dagger-instr enemy-obl stabbed
"the warrior stabbed the enemy with the dagger"

These forms (from literary West Circassian, or Adyghe, cited from Catford and in his transcription) illustrate the two possibilities: either as in 25a, where the subject appears in the ergative and is marked by an index in the last pre-verbal position in the verb complex, the object in the absolutive and marked by an index in the first preverbal position; or as in 25b, where the subject is in the absolutive, agreeing with an index in the first position, and the object in a form homophonous with the ergative, and agreeing with an index in second position.

According to a recent proposal of Catford's, 25a is an ergative construction, while 25b is an accusative construction. According to the traditional analysis, 25b is actually an intransitive construction, with the object being treated as indirect rather than direct. Since the form of the noun in -m serves as a general oblique case in the Circassian languages, marking indirect objects, possessors, nouns used adverbially, etc., as well as ergatives (and "accusatives"), either Catford's interpretation or the traditional one is perfectly consistent with the morphological facts.

There are fewer verbs that appear in the construction 25b than appear in construction 25a by a significant number, but we can get some insight into the difference between the two constructions by examining some verbs which (in West Circassian languages) appear in both, with differences of meaning:

- 26 a. (erg) č'aała-m č'æg^o-ər ya-z^oa
boy-erg field-abs 3sg(-3sg)-plows
"the boy is plowing the field"
- b. ("acc") č'aała-r č'æg^o-əm ya-z^oa
boy-abs field-obl 3sg(3sg)-plows
"the boy is trying to plow the field, or the boy is doing some plowing, in the field"
- c. (erg) p:šaša-m c'əy-ər ya-d-ə
girl-erg cherkesska-abs 3sg(3sg)-sew-pres
"the girl is sewing the Cherkesska"
- d. ("acc") p:šaša-r c'əy-əm ya-d-a
girl-abs cherkesska-obl 3sg(3sg)-sew-intrans/
pres
"the girl is trying to sew the Cherkesska, or the girl is sewing away (on the cherkesska)"

- e. (erg) č'aaλa-m p:śaśa-r ś'°-ay-χaγ°-ə
 boy-abs girl-obl good-3sg(3sg)-see-
 trans/pres
 "the boy loves the girl"
- f. ("acc") č'aaλa-r p:śaśa-m ś'°-ay-χaγ°-a
 boy-abs girl-obl good-3sg(3sg)-see-
 intrans/pres
 "the boy is falling in love with the girl"

These examples (which I owe to John Colarusso) are from the Bzhedukh dialect of West Circassian. There are numerous such pairs, and they differ systematically in the following way: the "accusative" form in each case indicates that the action is carried out less completely, less successfully, less conclusively, etc., or that the object is less completely, less directly, less permanently, etc. affected by the action.

Catford suggests that this is indeed the essence of the ergative construction: that ergative constructions (in any language) involve the semantic interpretation that the object is centrally involved in the action: they present the action from the object's point of view. Accusative constructions, on the other hand, present the action from the subject's point of view, and thus involve the object less centrally. While most languages have only the one or the other, the few languages like West Circassian that exist allow us to see that ergative languages involve a different sort of 'topicalization' than that in accusative languages.

In fact, however, the facts cited by Catford do not support his conclusion at all. First, it is certainly not the case that objects in sentences in accusative languages are always presented with the sort of semantic interpretation which we find in the accusative members of the pairs in 26. In fact, the ergative members of these pairs (26a,c,e) seem to present quite accurately the correspondents of ordinary accusative sentences. In fact, the difference seen in 26 (and other pairs, some cited by Catford) has a close parallel in many other languages, including accusative languages like English:

- 27 a. The boy plowed the field.
 b. The boy plowed (away) at the field.
 c. The girl sewed the dress.
 d. The girl sewed on the dress.
 e. The boy shot the girl.
 f. The boy shot at the girl.

Pairs like these were discussed in a paper of mine (Foundations of Language, 7:387-396) some years ago. In each case,

a semantic distinction parallel to that seen above in the Bzhedukh examples is correlated with the difference between a direct object and an object marked with a preposition. In fact, this same distinction recurs in a variety of other languages, from several distinct families: Maori, Walbiri, Finnish, and many others. It appears that it is possible in general to indicate that an object is incompletely, inconclusively, etc. affected, or that an action is incompletely, inconclusively, etc. carried out by putting the object into an oblique case.

Now notice that this is exactly the traditional interpretation of the Circassian data, in which 26b,d,f are intransitives, with indirect rather than direct objects. This interpretation is supported by verbs like those in 26c-d,e-f. For a number of Circassian verbs, we find transitive/intransitive pairs differentiated by a process which was apparently productive in the language at one time: corresponding to a transitive verb with vocalism ə, we can form an intransitive by replacing this with a vocalism a. Notice that 26d,f have a (and are thus likely to be intransitive, while 26c,e have ə, and are thus likely to be transitive. This is not a rigid rule in modern Bzhedukh, but where paired verbs differing in this way are found, they are almost always transitive vs. intransitive. We see, therefore, that both on internal grounds and by comparison with the facts of other languages it is most likely that 26b,d,f are to be interpreted in the traditional way: as intransitives, with an indirect object. They therefore do not present an accusative construction at all, and so Catford's proposal about the difference between ergative and accusative constructions cannot be supported by an appeal to such pairs as those in 26.

We have argued, then, that the notion of subject in ergative languages is, despite the morphological indications which appear to indicate otherwise, essentially the same as that in accusative languages. An alternative view of morphological processes, for which considerable evidence can be adduced, shows that there is in fact no reason to expect the notion of subject to be related in a maximally simple way to morphological category. Dyrbal, which as noted differs fundamentally from the usual type, is in fact the exception which proves the rule. It shows that there is a distinctive-ly "ergative" notion of subject, which is analogous to the usual "accusative" notion, but which is inapplicable to the vast majority of morphologically ergative languages.

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