

ON BEING WITHOUT A SUBJECT

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Indiana University Linguistics Club
310 Lindley Hall
Bloomington, Indiana 47405
March, 1979

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1. Subject in a case grammar

A crucial characteristic of case grammars (CGs) is the status they accord to grammatical relations (GRs) like **subject** and **object**.^{*} In so far as we conceive of a grammar as assigning to sentences a series of representations, i.e. a derivation, then in a CG the relations subject and object are absent from basic or initial structures and arise only derivatively. In terms of the so-called standard theory (not to mention the extended standard and revised extended standard), an instance of the configuration with respect to which subject is defined is present in each structure generated by the rules of the base. And some base structures also contain the defining configuration for objecthood. In relational grammar (RG) the relation subject is not only basic but also primitive (rather than defined, say, configurationally). And the universal core of such rules as **passive** and **raising** involves reference to this relation, in contrast with the a-syntactic character of GRs in the standard theory. Let us observe, however, that it is possible to concede a critical role in the grammar to GRs without also wishing to claim that they are basic (or primitive). In other words, just as in terms of the framework proposed by FILLMORE (1968) (or by ANDERSON 1971), the configuration with respect to which subject is defined arises only derivatively, so CG is compatible with the notion that the GR subject is introduced as such only in the course of derivations, say, as part of the cyclic rules (or their equivalent).

I have formulated this distinction between CG and RG in ‘derivational’ terms. However, the CG hypothesis can also be formulated with respect to a ‘non-derivational’, ‘uni-network’ framework such as ‘arc pair grammar’ (JOHNSON & POSTAL 1977), even if these are more than notationally distinct in the relevant respect. A case-relational arc pair grammar would, if I have understood the latter correctly, involve a claim that the GRs are not members of the set of ‘logical relational signs’. The conclusions offered below are thus, I think, relatively independent of the ‘derivational’ assumption which underlies my formulation of the ‘place’ in the grammar at which subjecthood is assigned.

Just such a view, of subject as a derived relation, is advanced in ANDERSON 1977: ch. 3, where it is hypothesized that subject-formation is a cycle-terminating rule. I try to show that a GR like subject is necessary to the formulation of syntactic regularities involving a particular NP only on the cycle following the one which applies to the sentence most immediately dominating that NP. So that on a particular cycle, whereas the relevant relations in a subordinate sentence are the GRs, in the cyclic clause itself the relevant relations are the case relations (CRs).

POSTAL (1974: §12.2) has argued that a universal formulation of raising in standard transformational terms is not possible; rather the rule is relation-referring.

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Raising is simply an instruction to extract the subject NP from an embedded sentence. Language-particular differences in e.g. the initial or resultant sequential position of that NP in, say, English and Japanese are due to independent word order differences between these languages. So that the same universal rule is involved in the derivation of (1.a) and (1.b):

- (1) a. John believes Mary to be a fool.
 b. John wa Mary o baka da to omotte ita
 John TOP Mary ACC 'fool' 'be' 'thinking' 'be':PAST

in that in both instances an embedded subject has been raised to become object of the main clause, as, it is argued, is confirmed by other aspects of their syntax (cf. again POSTAL 1974: §12.2). Notice that the crucial GR involved in the formulation is in an embedded sentence, and the rule is thus compatible with cyclic subject-formation and thus CG.

And a further look at raising indeed provides positive support for CG rather than a theory in which instead subjects and objects are basic. For raising in a non-CG involves the installation of the subject from an object complement as object in the cyclic clause, as in (1); or, if the subject is extracted from a subject complement, it brings about the transference of the subject relation in the cyclic clause to the raised NP, as in (2):

- (2) John is quite certain to be boring
 (cf. That John will be boring is quite certain)

But in a CG with cyclic subject-formation the relation assumed by the raised NP is the same in both cases: it is the CR prior to the application of subject-formation, the CR which FILLMORE (1968) designates objective (O) and which ANDERSON (1971) and (1977) respectively call nominative and absolutive. The absolutive is the argument most intimately associated semantically with its predicate, with which it enters into the potentially most specific selectional restrictions: with location or movement predicates it introduces the located or moving entity; with action or experience it is that which is acted upon or experienced; with processes or descriptions it is undergone or described. Raising thus confers the absolutive relation on the raisee. Assuming basic subjects and objects rather than CRs obscures this generalization. Instead one must be content with the lesser generalization represented by the **relational succession law**, whereby, as undergoing an ascension, a raised subject assumes in the main clause the GR of the argument out of which it is raised – the raised subject in (1) assumes the objecthood of the embedded sentence out of which it ascends; that in (2) takes on the subjecthood of the clause it is raised out of.

<3>

There are moreover, apparently, exceptions to the relational succession law which are in conformity with the raising-to-absolutive hypothesis. GARY (1977), for

instance, points out that in Mashi and Luyia, Bantu languages of Zaire and Kenya respectively, ‘alienable possessors of Loc<ative> O<blique> O<bject>s can ascend to D<iirect> O<bject>’ (p. 130), as illustrated by the Mashi sentence in (3.b), as compared with (3.a), which lacks raising:

- (3) a. omukazi a-tamala oku chirhi cha Rudy
 ‘woman’ ‘she’-’sat’ ‘on’ ‘chair’ ‘of’ Rudy
 (‘The woman sat on Rudy’s chair’)
- b. omukazi a-tamal-ir-a Rudy oku chirhi
 ‘woman’ ‘she’-’sat’-POSS-ASP Rudy ‘on’ ‘chair’

The derivation of (3.b), if it involves a source like the structure of (3.a), infringes the relational succession law. However, in terms of a CG account, the raisee *Rudy* becomes an absolutive, and so object in a transitive sentence, in conformity with raising-to-absolutive (and cycle-final assignment of GRs).

On the other hand, purported examples of the cyclic clause relevance of GRs that I am aware of turn out to be illusory. For instance, while it is true that for many languages argument-deletion in imperative sentences is restricted to subjects, subjecthood is not a sufficient condition, in that only agents normally allow deletion. Contrast (4.a) and (4.b):

- (4) a. Go!
 b. *Shiver!

Moreover, even in English subjecthood is not an independently necessary condition. If we restrict imperative deletion to the agent in action clauses, then the fact that in English agents occupy subject position in their clauses accounts for the apparent limitation of deletion to subject NPs. This formulation assumes, of course, that passive sentences are not simplex, but involve the embedding of an action sentence within a *be*- or *get*-sentence; or, at least, that passive sentences are not action sentences. Thus the passive agent-phrase is not in an action sentence at the point at which imperativisation applies: see further ANDERSON 1977: §3.3. So that even if imperative-*you*-deletion is last-cyclic (rather than, say, post-cyclic, or a manifestation of equi), reference to a cyclic subject is unnecessary and insufficient. In other languages, subjecthood is even more patently not a necessary condition; further, the agent deletee is not restricted to action clauses, as witness (5), it is structurally akin to English passives:

- (5) tua-ina te raakau raa (ke te toki)
 ‘fell’-PASSIVE ‘the’ ‘tree’ ‘yonder’ (‘with’ ‘this’ ‘axe’)

from Maori (cf. KEENAN 1976a: 321; see too FOLEY & VAN VALIN 1977).

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Such a possibility is not unknown to earlier English: recall Hamlet's *Nymph in thy orisons Be all my sins remember'd* (Act III, Scene I). But in transitive sentences an imperative is necessarily passive in Maori. These imperativisation phenomena require no reference to subjecthood within the cyclic clause. [1] As far as I can tell, this is universally the case. Cyclic clause reference to relations is to CRs, as is the reference of selectional restrictions (cf. below).

2. Subject in Dyirbal

What I shall be concerned with in what follows is a further limitation on subject-formation, of a character that is potentially significant for language typology. I shall not be able to pursue these typological considerations here; it is necessary first of all to establish the nature of the limitation on subject-formation. The claim I want to make is simply this: the extent to which subject-formation applies, measured in terms of potentially subject-displaying structure-types, varies from language to language. That is, crudely, languages utilize subject-formation to a varying extent. Let me try to establish in the first place that Dyirbal makes minimal utilisation of subject formation: most Dyirbal sentences lack a subject (cf. ANDERSON 1977; §§3.5.5.-8.; VAN VALIN 1977).

Let us say, in a rather traditional vein, that a language *has subjects if the Agent in simple 'transitive' action sentences shares noncontingent syntactic or morphological properties with the Patient/Agent argument in 'intransitive' sentences which the latter does not share with the Patient in action sentences*. Here 'transitive' is to be interpreted as simply meaning 'having a distinct agent and patient', in the case of action sentences). Thus, for example, the initial NPs in (6.a) and (6.b):

- (6) a. The woman is coming
b. The man is hitting the woman

share unmarked preverbal position, control of verbal concord, susceptibility to equi in appropriate complement structures, etc. Thus English has subjects, and the initial NPs in (6) are subjects.

Other structural types have subjects to the extent that there is a single NP in such structures that also displays these properties. Accordingly, mental and physical state verbs in English, such as are contained in the sentences in (7):

- (7) a. I know this theorem
b. The audience suffered agonies

<5>

also have subjects, and the subject is the NP that is the experiencer (in the terminology of FILLMORE 1971). It may be that we should recognise a hierarchy of properties, such that in case of conflict, a NP possessing higher-ranking shared properties

is preferred as subject in a certain sentence-type over a NP displaying only low-ranked properties. A hierarchy that can be interpreted in such a way has been proposed by KEENAN (1976), who rates ‘control’ properties higher than ‘coding’, and within the latter, ‘inflexional’ higher than ‘positional’: see §6. However, we shall be concerned in the main here not with instances showing such conflict, but rather with structural-types that in particular languages lack subject-formation altogether.

Consider now Dyirbal (cf. DIXON 1972). On our criterion, not even all action sentences in that language have subjects. Only those transitive sentences (of whatever type) that contain pronouns warrant the ascription of subjecthood to a particular NP. Non-pronominal (agent/patient) NPs in a simple ‘intransitive’ sentence in Dyirbal are identified by position and inflexion with the patient in ‘transitive’ action sentences, as illustrated by (8) (DIXON 1972: 5):

- (8) a. balan dʉgumbil baniɲu
 CLS ‘woman’ ‘come’:NONFUT
 (‘woman is coming’)
- b. balan dʉgumbil baŋgul yaɾaŋgu balgan
 CLS ‘woman’ CLS:ERG ‘man’:ERG ‘hit’:NONFUT
 (‘man is hitting woman’)
- c. bayi yara baŋgun dʉgumbiɾu balgan
 CLS ‘man’ CLS:ERG ‘woman’:ERG ‘hit’:NONFUT
 (‘woman is hitting man’)

where the given orders are the unmarked (but not unique) possibility, and the ‘agent’ of the transitive sentence is distinguished by its non-initial position and the presence of a special inflexion, the ergative, not shared by the other NPs. Further, the transitive ‘agent’ is also excluded from other syntactic properties like relativisation and deletion by conjunction reduction or equi. Consider e.g. (9):

- (9) a. ɲaɟa dɲɲgalɲu biligu
 ‘I’ ‘run’:NONFUT ‘climb’:PURP
 (‘I’m running in order to climb’)
- b. balam miraŋ baŋgul yaɾaŋgu dimbaɲu ɲinda babilɲi <6>
 CLS ‘beans’ CLS:ERG ‘man’:ERG ‘bring’:NONFUT ‘you’ ‘scrape’:PURP
 (‘man brought beans for you to scrape’)

showing deletion of the argument of the intransitive embedded verb which is identical to the main clause argument in (9a), and of the lower of the two identical patients in (b). However (10):

- (10) *balan dʉgumbil baŋgul yaɾaŋgu wawun
 CLS ‘woman’ CLS:ERG ‘man’:ERG ‘fetch’:NONFUT

balan nayinba walmbilgu
 CLS ‘girls’ ‘get up’:PURP
 (‘man fetched woman to get girls up’)

in which the deleted NP is the agent in an embedded transitive sentence, is not well-formed. The transitive agent is eligible for such a process only if the sentence assumes a particular form, such that the verb is marked by a special affix (-*ŋay*) and the agent is unmarked and the patient bears the dative inflexion. Thus, corresponding to (10) is the non-deviant (11):

- (11) balan *ɖugumbil* baŋgul yaɕaŋgu wawun
 CLS ‘woman’ CLS:ERG ‘man’:ERG ‘fetch’:NONFUT
 bagun nayinbagu walmbilŋaygu
 CLS:DAT ‘girl’:DAT ‘get up’: *ŋay*:PURP

Here the deleted agent in the lower sentence would have been unmarked (*balan ɖugumbil*), as the verb bears the special affix and the patient is in the dative.

It seems to me that the conclusion to be drawn from the facts of Dyirbal syntax is not that we need to invoke a new set of grammatical relations, appropriate to Dyirbal but not to English (cf. e.g. WOODBURY 1977). Rather, the situation is exactly what one would expect in a language which lacks subject-formation: the case relations alone remain relevant throughout the syntax. In terms of the analysis offered in ANDERSON (1968: app., 1971, 1977), a verb like *move* shows the range of non-locational arguments indicated in (12), where each NP is associated with its case relation(s):

- <7> (12) a. The paper moved
 absolutive
 b. John moved the paper
 ergative absolutive
 c. John moved
 abs
 erg

such that the NP in the intransitive action sentence (12.c) is simultaneously absolutive (as, in this instance, the object that moves) and ergative (as agent). Now, given such casehood assignments, the patient in a transitive sentence and the argument in an intransitive share the CR absolutive: the generalisation governing absence of inflexion, initial position, relativisation and equi in Dyirbal is that these properties are associated with the absolutive NP in a sentence. The absolutive may be either basic (in accordance with the assignments made in (12)), as in (9), or derived, as a result of the operation (PROMOTION TO ABSOLUTIVE) eventuating in the embedded sentence in (11) and the like.

It is simply inappropriate, then, to try to come to a decision as to which NP in a Dyirbal sentence is the subject, as KEENAN & COMRIE (1977: §1.4.2.1) and JOHNSON (1977: 685-6) attempt to do. KEENAN & COMRIE go for the unmarked NP, and JOHNSON for the other one. The latter offers a curious argument in support of his claim, an argument whose only virtue (if that it is) is to maintain (albeit vacuously), the universality of subjecthood (1977: 686), such that ‘... ergative NPs in Dyirbal are syntactic SUBJ<ect>s and ... absolutive NPs are members of the disjunctive class of intransitive SUBJs and direct objects’. The only motivation for this is that ‘in the case of imperative clauses, ergative NPs are SUBJs and, hence, their deletion is perfectly regular’. But we have already seen that imperative-argument-deletion is independent of subjecthood (and we return to this in a moment). And the groupings imposed by attributing subjecthood and objecthood to NPs in Dyirbal simply ignore the syntactic regularities we have looked at. According to JOHNSON, however, ‘the fact that ergative NPs in Dyirbal cannot relativize and undergo coreferential deletion is attributed to a subsetting condition to the effect that ergative SUBJs cannot participate in these grammatical processes. Here, then, is a case where a subsetting condition refers to the notion of transitivity: intransitive (absolutive) SUBJs, but not transitive (ergative) SUBJs, can undergo a variety of rules’. So these processes are to be associated with a disjunctive class one element of which is a subset of another class not relevant to the syntax of Dyirbal, i.e. the class of subjects. I submit that Johnson’s ‘subsetting’ condition is simply a ‘blocking device’ preventing the hypothesis of universal basic subjecthood from being confronted with the facts of Dyirbal syntax, which disconfirm it. (Further on JOHNSON’s proposal, see VAN VALIN 1977). <8>

A further defence of the relevance of subjecthood to Dyirbal was provided by GEORGE (1974). He also invokes imperativisation, which we have seen and will see to be irrelevant. And he also points to the subject-object pronoun morphology, which, as again we shall see, is peripheral to the grammar as a whole. He attempts to predict the distribution of the affixes of nouns, while maintaining the view that the syntax is organised on the basis of GRs, by means of elaborate, vague global devices. Consider his account of the allegedly postcyclic assignment of ‘absolutiveness’: ‘some obligatory process selects one anytime 1 (i.e. a NP that at any time in the derivation has been a subject) to be absolutive’ (p. 270). Apart from anything else, his case-marking rules are observationally inadequate. The dative inflexion, for instance, is assigned (cyclically) to cycle-final direct objects; but there are simple sentences in Dyirbal which in GEORGE’s terms have apparently a subject, a direct object and a dative NP (DIXON 1972; §§4.4.1, 5.3.3.). It seems to me that GEORGE’s proposals represent a distinct step backwards from the elegant analysis of case-marking proposed by DIXON (1972; §5.4.4).

Perhaps more crucially, GEORGE's analysis, whereby simple transitives like (8.b) and (8.c) are passives, is incompatible with DIXON's observations concerning these, viz. that they represent the 'preferred, unmarked construction' (p. 66); whereas sentences like the embedded one in (11), with the special *-ηay* affix, which for GEORGE are closest to underlying structure, i.e. are straightforward transitives, are, according to DIXON, more marked and 'normally occur only non-initially in a discourse' (p. 66). Moreover, DIXON provides a range of evidence to show that these latter constructions are, in fact, like passives (KEENAN 1975; PERLMUTTER & POSTAL 1977), 'surface intransitive'. Further, GEORGE's analysis is incompatible with an adequate formulation of the cyclic application of equi, given his suggestion that absolutiveness is assigned post-cyclically, taken together with DIXON's insistence on the crucial role of absolutes in the formulation of equi. [2]

<9>

However, in languages which show subjecthood, the properties like deleteability by equi and highest accessibility to relativisation that we've associated with absolutes in Dyirbal do characterize subjects. In English the victim of equi is characteristically a subject; other NPs are deleteable under identity only if the subject has been removed (LASNIK & FIENGO 1974: §1); in Malagasy, only subjects can be relativised (KEENAN 1972; KEENAN & COMRIE 1977: §1.3.1). Why in a language lacking subject-formation are these properties associated with absolutes? I think this follows from one thing that absolutes and subjects have in common, involving a hypothesis that is independently worth maintaining, if for no other reason than that of imposing significant constraints on relational structures: at the point in the derivation at which they are introduced, each has a unique position among the other relations, in being 'obligatory'. The case structure for any sentence must contain an absolute NP: there may be other NPs present, or if there is only one, it may bear other CRs; but the basic minimum for any sentence is an absolute NP. Subjects are 'obligatory' in a slightly different way. The obligatoriness of subjecthood for a sentence type is trivially ensured by the fact that the effect of subject-formation is to assign to one NP in a particular sentence-type the GR subject. Subject may be the only GR acquired; the acquisition of other grammatical relations presupposes the acquisition of subject. Let us on these grounds refer to the CR absolute and the GR subject as **PRINCIPAL** relations: at any stage the principal relation is the one which is obligatory at that stage. We can now associate highest accessibility to relativisation and equi with the principal relation at that point. Relativisation and equi affect NPs in embedded sentences: in a language with cyclic subject-formation, the principal NP with respect to such processes is the subject; in a language lacking subject-formation, the principal NP with respect to equi etc. is the absolute. Of course, in both types of language, the only relations available to the cyclic clause are the CRs. Thus, both in English and in Dyirbal, the availability of imperativisation depends on the sentence being an action sentence, and the deleteable NP is the one

bearing the ergative CR, either alone (where there is a distinct patient), as in (12.b), or in conjunction with absolutive, as in (12.c). Cf. the Dyirbal imperatives in (13):

- (13) a. (ŋinda) bayi yaɾa balga
 ('you') CLS 'man' 'hit'
 ('(you) hit the man')
- b. (ŋinda) bani
 ('you') 'come'

In neither language is appeal to subjecthood involved; crucial is the ergative relation, patients in a transitive sentence and the argument in a non-action intransitive sentence such as (12.a) are not deletable under imperativisation. I've emphasized this because it seems to me that DIXON's account (1972: §§5.8.2., 5.8.5) misleadingly collapses the explication of these phenomena with the description of pronominal morphology, where subject-formation does seem to be involved, albeit marginally. [3]

The observant reader, even if unfamiliar with Dyirbal (if any there be by now), will already have observed that the *you*-pronouns in (13) have the same form, even though one is the agent in a transitive sentence and the other is in an intransitive sentence: the corresponding nouns would respectively bear the ergative inflexion and be unmarked. This morphological grouping is true in general of two of the dialects that DIXON describes (1972: §§3.3.1, 4.1.2); cf. the sentences in (14):

<10>

- (14) a. ŋaɖa ŋinuna balgan
 'I' 'you':ACC 'hit':NONFUT
 ('I'm hitting you')
- b. ŋinda ŋayguna balgan
 'you' 'me':ACC 'hit':NONFUT
 ('You're hitting me')
- c. ŋaɖa baniɲu
 'I' 'come':NONFUT
 ('I'm coming')

Again the patient first person pronoun in the transitive sentence (b) is distinct in shape from the agent in (a) and the NP in the intransitive (c), as in English. Moreover, whereas in the case of non-pronominal NPs the unmarked order is for the NP showing the principal relation to appear first, as in examples (8) through (11), an agent pronoun has precedence over the patient, as in (13) and (14) (DIXON 1972: §7.8). Thus, the word order and the morphology in sentences containing pronouns suggest that subject-formation has applied; so that the first person pronouns in (14.a)

and (14.c) are subjects, morphologically distinguished as such, and as such appearing in the unmarked instances in front of other NPs.

Dyirbal is then a language in which subject-formation is rather marginal, affecting pronouns only. I want now to turn to a language in which it is rather more widespread, but in which there are still sentence types to which it does not apply. But before doing so, it is worth pointing out that there is another respect in which Dyirbal subject-formation is partial. Whatever is involved in subject-formation, in Dyirbal it does not destroy the CRs of the NPs that undergo it. That is, pronominal NPs otherwise behave syntactically as nominal ones (DIXON 1972: §5.2.2 – except in one respect: p. 134), in that, e.g., despite the shape of the pronouns, it is still only an absolutive NP that can be deleted under equi or conjunction reduction. (15) is well-formed:

- (15) $\eta\alpha\delta\alpha$ $ban\eta nu$ $ba\eta gun$ $\delta u g u m b i \eta u$ $balgan$
 ‘I’ ‘come’:NONFUT CLS:ERG ‘woman’:ERG ‘hit’:NONFUT
 (‘I came here and was hit by woman’)

despite the discrepancy in the pronoun shapes in the uncoordinated sentences in (16):

- (16) a. $\eta\alpha\delta\alpha$ $ban\eta nu$
 ‘I’ ‘come’:NONFUT
 b. $\eta\alpha y g u n a$ $ba\eta gun$ $\delta u g u m b i \eta u$ $balgan$
 ‘I’ CLS:ERG ‘woman’:ERG ‘hit’:NONFUT
 (‘woman hit me’)

since the deleted NP like its ‘controller’ is absolutive. And despite the agreement in pronoun shape between (16.a) and (17):

- (17) $\eta\alpha\delta\alpha$ $balan$ $\delta u g u m b i l$ $balgan$
 ‘I’ CLS ‘woman’ ‘hit’:NONFUT
 (‘I hit the woman’)

(18) is deviant:

- (18) $\eta\alpha\delta\alpha$ $ban\eta nu$ $balan$ $\delta u g u m b i l$ $balgan$
 ‘I’ ‘come’:NONFUT CLS ‘woman’ ‘hit’:NONFUT

So that if subject-formation is cyclic, the CR(s) of the subject is recoverable even after the application of subject-formation: we have what I have called (1977: §3.6) ‘semi-subject-formation’. Whereas in English, for example, there is as far as I’m aware no need for the identity of the CR(s) of the subject to be recoverable; as we’ve seen, the relevant relations in embedded sentences are the GRs (where a NP has acquired these).

3. Subject in Kannada

S.N. SRIDHAR (1976a) has recently discussed the problem of assigning subjecthood appropriately in sentences in Kannada which express possession of a physical or mental state or ownership of other more or less abstract kinds. These are exemplified in (19):

- (19) a. nanage ī vicara gottu
 'I'-DAT 'this' 'fact' 'knows'
 ('I know this fact')
- b. nāyigaḷige sūkshmaṁvāda mūgu iruttade
 'dogs':DAT 'sensitive' 'nose' 'is'
 ('Dogs have sensitive noses')
- <12> c. avarige ibbaru henḍiru iddare
 'he':DAT 'two' 'wives' 'are'
 ('He has two wives')

One NP, the 'possessor' NP, in each sentence bears the dative inflexion which also marks indirect objects; the other is said to be in the nominative, i.e. unmarked form, which elsewhere, in action and intransitive sentences, marks the subject. The dative NP occupies the initial position occupied otherwise by subjects: in transitive action sentences the unmarked order is SOV. However, as (19.c) illustrates, verbal concord, which otherwise is with the subject, in this sentence type is controlled by the nominative NP. In seeking to determine subjecthood we are faced with a contradiction: the nominative NP in the sentence in (19) is inflected like a subject, and like a subject controls concord on the verb; but the dative NP apparently occupies subject position. This is perhaps not too problematical, given the general tendency for animate NPs to be placed early anyway. However, other aspects of the syntax appear to select the dative NP as subject.

Consider, for example, reflexivisation (SRIDHAR 1976a: 587-7). Reflexivisation in Kannada is limited to third person NPs. The reflexive, however, can appear in a clause embedded in that containing the controller. Also, according to SRIDHAR, the controller must be subject of its cyclic clause. The character of Kannada reflexivisation is illustrated by (20):

- (20) a. rāyaru somanige tamma pustakavannu koṭṭaru
 Rao Soma:DAT 'self's' 'book':ACC 'gave'
 ('Rao gave Soman his own (Rao's) book')
- b. *rāyaru somanige tanna pustakavannu koṭṭaru
 Rao Soma:DAT 'self's' 'book':ACC 'gave'

The honorific 'self' form *tamma* in (20.a) refers back unambiguously to the honorific form of the subject. In (20.b) the non-honorific *tanna* cannot refer back to the

subject; however, it cannot refer back to the ‘indirect object’ *Soma*, even though it is non-honorific, since only subjects can control reflexivisation: thus, (20.b) is anomalous.

Now, the dative NP in examples like those in (19) also controls reflexivisation, as illustrated by (21):

- <13> (21) avanige tanna jātiyavarannu kaṇḍare āgaḍu
 ‘he’:DAT ‘self’s’ ‘community:people’:ACC ‘loathe’
 (‘He can’t stand the people of his own community’)

So, in contradiction to the evidence from inflexional marking and concord, the subject of such sentences is the dative NP, if the generalisation concerning control of reflexivisation is to be maintained. And the same conclusion appears to follow from a consideration of the formation of ‘participial modifiers’ in Kannada, as SRIDHAR (1976a: 587-88) illustrates (on these, see note 4).

But such a conclusion is contradicted when we turn to equi (SRIDHAR 1976a: 589-90), or raising or passive (SRIDHAR 1976b: §5). As in other subject-forming languages, the victim of equi in sentences like those in (22) is the embedded subject:

- (22) a. uma ramanannu maduveyāgalu oppidaḷu
 Uma Rama:ACC ‘marry’:INF ‘agreed’
 (‘Uma agreed to marry Rama’)
 b. shankar shobhaḷannu ḍakṭara bali hōgalu bedikondanu
 Shankar Shobha:ACC ‘doctor’s’ ‘near’ ‘go’:INF ‘begged’
 (‘Shankar begged Shobha to go to the doctor’s’)

However, the dative NP in a sentence like those in (19), when embedded under such a verb, does not undergo equi, as shown by the deviance of (23):

- (23) a. *nanu talenōvu baralu isṭapaḍuvudilla
 ‘I’ ‘headache’ ‘come’:INF ‘wish:NEG’
 (‘I do not wish to get a headache’)
 b. *namma cikkappa nanage parīksheyalli pāsagalu protsāhisidaru
 ‘my’ ‘uncle’ ‘I’:DAT ‘exam’:LOC ‘pass’:INF ‘encouraged’
 (‘My uncle encouraged me to be successful in the exam’)

This, then, accords with the facts of inflection and concord in denying subject status to the dative NP; but, of course, it is in conflict with evidence from position and reflexivisation.

- <14> SRIDHAR concludes his discussion (1976: §4) by pointing out that assuming that either the unmarked or the dative NP is underlying subject poses serious problems, involving, for instance, moving subjecthood from one to the other more than once in

the course of a derivation, in order to reconcile the conflicting claims to this status. None of these shifts are independently motivated. Concerning the resolution of the conflict SRIDHAR confesses: ‘Frankly, I don’t know’.

Some, at least, of the problems disappear if we simply don’t insist on looking for a subject in sentences such as these in Kannada. Suppose instead that subject-formation does not extend to such non-action transitives in Kannada; i.e. to sentences which in terms of FILLMORE (1968) contain an objective and a dative, or of ANDERSON (1977: chs. 1-2) an absolutive and a NP that is simultaneously locative and ergative. That is, the dative NP is simultaneously locative, as site or goal of the state or process involved, and ergative, as (semantically) ‘potential controller’, requiring an entity high on the humanness hierarchy (if not necessarily animate). Ergative alone (not in combination with loc) constitutes an agent and correlates in English with the occurrence of adverbials such as *deliberately*, etc. But ergative can have more general correlates: for instance, the ergative goal in directional sentences and the agentive ergative both permit adverbial-modification by such as *willingly*, as illustrated by (24):

- (24) a. Fred willingly ate the haggis
 b. Fred willingly left for Kirkcaldy
 c. Fred willingly suffered the agonies of plastic surgery
 d. Fred willingly received an increase in salary

(That the adverbial can modify the subject in a passive like *Fred was willingly deprived of his marital status* supports the analysis of these as ergative-goal subject directionals proposed in ANDERSON 1977). *Willingly* correlates with the ‘potential controller’ in a directional or agentive sentence.

Say, then, the sentences in (19) lack subjects. In the absence of subject-formation it is the CRs – i.e. a [loc,erg] first argument, an [abs] second – that will be uniquely relevant to syntactic generalisations. This immediately accords with the inflexional and concordial properties we’ve observed. The absolutive NP, as displaying the principal relation in the absence of subject-formation, controls concord and is inflexionally unmarked. And the absence of a subject also explains the failure of equi in sentences such as (23), provided we assume that equi in a language with subject-formation and no promotion to abs requires as victim a subject; only thereby does an appropriate range of NPs occupy the principal derived relation. (But see note 4).

<15>

On the other hand, the controller NP in reflexivisation is in the cyclic clause, and so GRs, on the cyclic-subject-formation hypothesis, are not relevant anyway, despite SRIDHAR’s associating controllerhood with subjects. The range of evidence from action sentences such as those in (20) is equally compatible with attributing ability

to control reflexivisation to the bearing of the ergative relation. The hypothesis of cyclic subject-formation indeed requires that if control from the cyclic clause of anything at all, say, reflexivisation or equi, is to be ascribed to a relationally characterised element, the relation involved will be a CR. In a number of languages, at least, control of reflexivisation and equi is by the ergative phrase in the cyclic clause (cf. e.g. ANDERSON 1977: §3.1; FOLEY & VAN VALIN 1977). Also, the dative NP in (21) controls reflexivisation by virtue of bearing this same CR, here in conjunction with locative. Attributing control to the CR erg, which is required in terms of cyclic subject-formation, avoids the problem of associating this with subjecthood in these cases, given the lack of support otherwise for regarding the dative NP as a subject. [4]

The absence of evidence for subject-formation is, if anything, even more striking with the so-called ‘oblique subjects’ of Hindi-Urdu (KACHRU *et al.* 1976: §5.3.3), i.e. participants marked with an oblique marker (such as an ‘instrumental’) but typically regarded as subjects by virtue of their exercising control in e.g. reflexivisation and equi (as well as because they are translatable as subjects). (This construction is not to be confused with the ergative subject construction: KACHRU *et al.* 1976: §5.3.2.). KACHRU *et al.* (1976) assign to these ‘oblique subjects’ a lesser degree of subjecthood than non-oblique (or even dative) ‘subjects’, in that they fail to delete under equi or ‘participle-formation’, or to undergo raising. But their behaviour is exactly what one would expect in the absence of subject-formation. The alleged subject properties are not such. As in other languages, control of equi and reflexivisation is apparently exercised by ergative phrases, and this is the case with the sentence-type we are concerned with, too: the predicates involved are agentive or experiential, with a simple ergative or locative ergative argument exercising control. Thus, in fact the NPs in these predications lack any sign of subject-formation at all: their inaccessibility as downstairs arguments to raising and equi follows from this: it is in regard to embedded sentences that subjecthood is, if present, relevant to the syntax.

<16> The sole subject-like property of any NP in the sentences in (19) is then the preference for initial position of the dative NP, given that we would expect the absolutive, as principal relation, to precede. However, this in itself, as we’ve observed, can scarcely establish subjecthood, given that agents and more generally ergative NPs are preferably placed early in sentences, or in topical position (GIVÓN 1976), as a universal. This seems to have to do with ‘empathy’ (KUNO & KABURAKI 1977) or ‘saliency’ (FILLMORE 1977), such that NPs high on the humanness hierarchy, as is normal with agents and datives, are presented early, as easiest to empathise with, where we mean by that something like to see or present the situation from the point of view of (KUNO & KABURAKI 1977: §1). Nevertheless, this preference for topicality on the part of ergatives may be a crucial factor in the development of subject-

hood, since it leads in transitive sentences to the ergative phrase taking preference in one respect over the principal CR, the absolutive. If this is generalised over other phenomena, then subjecthood is developed. We return to this later. [5] However, whereas action sentences in Kannada appear to have travelled all the way to the acquisition of subjects, the dative NPs of (19) remain pre-subjective. Notice too that the association of subjects with topical ergatives also accords with their restriction to pronouns in Dyirbal.

4. Subject in English nominalisations

Kannada is a language, then, in which action sentences meet the criterion for having subjects, but no NP in dative sentences like (19) is a subject. Subject-formation is to this extent only partially applicable in the language, though much more widely than in Dyirbal, where we found it to be peripheral. English, on the other hand, is apparently a very thoroughly subject-forming language, and increasingly so over time (see §6). But even here there is one construction-type, at least, to which subject-formation penetrates only partially. Let us look at this area – briefly, in that I have already discussed it elsewhere (ANDERSON 1977: §3.5.10; 1978c). Whatever their derivation otherwise, English nominalisations like that in (25):

(25) Geoff's destruction of that argument

appear to have a subject at some point in that derivation; as is elsewhere the norm in English, the subject of the structure is the argument occupying the position immediately before the predicate *destruction*, the so-called GENITIVE. As elsewhere, this position is the target for non-subjects under passivisation, as shown by (26.a); and there are also 'intransitive' nominalisations such as (26.b):

- (26) a. That argument's destruction by Geoff
b. That argument's disappearance

in which the argument shares this position and the inflexional marking with the agent in (25). (More generally on such nominalisations, cf. KEENAN 1974). Genitive-formation obeys the same case-hierarchy as subject-formation: ergative phrases are preferred over everything else (as in (25)), and failing that an absolutive is made genitive. Cf. (27):

- (27) a. Igor's absence from the room
b. *The room's absence of Igor

in which only the absolutive may appear in genitive/subject position. The passive in (26.a) allows an absolutive into subject-position in preference to the ergative, which is thereby deleteable (*That argument's destruction*/**Geoff's destruction* – the latter interpretable only as involving *Geoff* as absolutive rather than agent). Passive

<17>

nominalisations are also of course much more restricted than corresponding active transitives (ANDERSON 1977: §3.5.10).

However, there are also nominalisation variants corresponding to (25) and (26.a) with no preverbal arguments, and in which either order is possible; compare with (25) and (26.a) the examples in (28):

- (28) a. (the) destruction of that argument by Geoff
 b. (the) destruction by Geoff of that argument

(Some speakers prefer (28.a) as ‘unmarked’). Now, we can allow for this by decomposing the process which creates the ‘passive’ variant in (26.a) into two operations (cf. e.g. CHOMSKY 1970; FIENGO 1977), both of which are optional, in a non-structure-preserving formulation. One operation postpones the subject, marking it with *by*; the second preposes the *of*-phrase into a vacated subject position. The latter has applied in the case of (26.a) but not of (28). Both of these, as compared with (25), show subject postponing. To formulate it another way: in nominalisations, passive may involve both object promotion and subject demotion (as in (26.a)) or just subject demotion (as in (28)), i.e. ‘spontaneous demotion’ (COMRIE 1977). One problem with such an account, however, is that it is only in nominalisations that proposing is optional. More seriously, perhaps, there are other variants still to be accounted for. For there also corresponds to (26.b) a variant with no pre-verbal argument, i.e. (29):

- (29) (The) disappearance of that argument

If this is a product of subject-postposing, then in nominalisations but not full sentences it will have to be able to apply to predicates with only one argument, although otherwise passive nominalisations are more restricted; and the postposed subject has to be marked with *of* rather than *by*. And the situation is, in fact, still worse, in that there are some ‘intransitive’ nominals which can have either a *by* or an *of* postposed phrase. Corresponding to (30.a), for example, there are both of (30.b):

- <18> (30) a. Dave’s withdrawal (from that position)
 b. (the) withdrawal of/by Dave (from that position)

Thus the occurrence of *by* cannot simply be attributed to transitivity, or to the application of passive. [6]

This range of data is unproblematical, on the other hand, if we stop thinking of the structures with subject-formation but no passive – i.e. (25), (26.a), (27.a) and (30.a) – as basic. In a CG, these are structures which like full sentences have undergone cyclic subject-formation and the relevant NPs occupy pre-predicate position by virtue of this. What is distinctive about these English nominalisations is that subject-formation is optional. The forms in (28), (29) and (30.b) merely lack subject-

formation. Thus no argument is rendered eligible for pre-predicate position. And the distribution of prepositional markers is in accordance with the CRs involved: *Geoff*, marked with *by*, is an agent in (28), and *that argument*, with *of*, is an absolutive both there and in (29). Interestingly, the intransitive agent in (30.b), whose argument has the CRs shown in (12.c), that is, is both absolutive and ergative, can be marked by either *of* or *by*. (25), (26.b), (27.a) and (30.a) show subject-formation: of the agent if there is one; of the absolutive otherwise. That argument in (25) continues to be marked by *of*: objects in English are absolutives that have been denied subject-position by an ergative phrase (ANDERSON 1977: §3.6). Only (26.a) shows passivisation, with the agent that is denied subject-position bearing again the preposition *by*. [7]

The distribution of these prepositions thus follows from the assignment of CRs suggested in (12). In other languages, such manifestations are more widespread. Consider, for example, Eastern-Pomo (MCLENDON 1978). In this language, a number of relatively common verbs are suppletive or partially suppletive in response to the plurality of their ‘patient’ argument, whether the verb is ‘transitive’, as in (31.a), or ‘intransitive’, as in (31.b):

- (31) a. ša·k ‘kill:one’
 du·léy ‘kill:several’
- b. ká· ‘one:sits/is sitting’
 na·p^hó· ‘several:sit/are sitting’

The agent in a ‘transitive’ sentence is distinguished by a particular form of the noun or pronoun; patients in ‘transitive’ or ‘intransitive’ sentences share a different form, as illustrated by (32):

- (32) a. bé·kal cé·xélka
 ‘they’ ‘slipped’
- b. mí·p be·kal duléya
 ‘he’ ‘them’ ‘killed’
- c. bé·k^h mí·pal sakakiya
 ‘they’ ‘him’ ‘killed’

<19>

The two third person plural patients in (32.a) and (32.b) share the same shape; the agent in (32.c) is distinct. (32) also illustrates the suppletion conditioned by the number of the patient (cf. 31.a)). Consider now ‘intransitive’ agent verbs, verbs which in terms of (12.c) are both absolutive and ergative, both patient and agent. We would anticipate, if this analysis is correct, that some of these verbs will show number suppletion, even if their argument is in the agentive form. This is exactly what we find in examples like those in (33):

- (33) a. mí·p káluhuya ‘he went:home’

- b. bé·k^h kálp^hi·líya 'they went:home'

The alternation in the shape of the verb correlates with plurality of a patient, but the pronouns are in the agentive form, in conformity with the two CRs assigned to such NPs.

Note finally that subject-formation in English nominalisations, apart from being optional, is also more restricted than in full sentences. Locative genitives, for instance, are generally rather doubtful, at best, even where the 'corresponding' sentential structure is well-formed (STOCKWELL, SCHACHTER & PARTEE 1973: 685), as illustrated by (34.a) vs. (34.b):

- (34) a. ?*the team's inclusion of Jordan
(cf. The team includes Jordan)
b. Jordan's inclusion in the team
(cf. Jordan is included in the team)

Only the non-locative-subject variant (34.b) is fully acceptable in the case of the nominalisation structures. So that even in English subject-formation does not extend to all the eligible structures.

5. Non-subject

<20> We have found that extent of subject-forming in a language can vary from the peripheral, as in Dyirbal, to almost total applicability with respect to the whole range of argument-predicate structures, though not quite. If all languages fall somewhere within this range, it would seem to be the case that exactly the converse of the claim made by DIXON is true. He suggested (1972: 129) that there are no languages of mixed ergative/accusative type: 'In any language, the syntactic function in an intransitive construction ... is syntactically identified with one and only one of the functions in a transitive construction ...' But all of the languages that we have looked at are 'mixed' in requiring reference to both CRs and GRs, such that the intransitive argument may be grouped with either transitive. (See too MORAVCSIK 1978). And this will be trivially true wherever a language shows subject-formation, in that subjects are imposed on a framework of CRs. However, there remains the question of whether there are languages which lack subjects altogether. Such languages can in principle either be 'pure', in lacking anything at all corresponding to subjects; or they may show some distinctive kind of derived relation.

MCLENDON's discussion of Eastern-Pomo suggests that it may be a language which lacks any reference to subjecthood or, more generally, derived relations; but crucial parts of the syntax (like relativisation) are not surveyed by her. Compare too the analysis of Lakhota proposed by FOLEY & VAN VALIN (1977). It is, moreover, already clear that the role of subjecthood in Dyirbal is very marginal indeed.

Whatever the outcome of research in this area, it seems clear, on the one hand, that a very large number of languages indeed require reference to subjecthood in their syntax. This number includes most, at least, so-called ‘ergative languages’, apparently (cf. S.R. ANDERSON 1976 – but see VAN VALIN 1977). What may characterise them, or more generally ‘mixed/split ergative syntax’ wherever it is found (cf. the discussion of Finnish in ANDERSON 1977: §3.5.9), is that subject-formation does not destroy the identity of the CR that becomes subject; as we found to be plausible for Dyrbal, the CR of the subject remains available to subsequent rules. And in Chukchee, for instance, conjunction reduction is controlled either by a subject or an absolutive, so that two possible controllers are available in a transitive first conjunct. This is consonant with semi-subject-formation, which makes available two simultaneous principal relations. (For further exemplification of ‘split syntax’, see ARD 1978: §3; and, more generally, DIK 1978: §5.8.3). Whereas in English, for example, it looks as if we can make the claim that the CR of the subject is not available to the syntax after subject-formation. This is a further source of variation I shall, however, not explore here.

Independently of the outcome of research on languages like Eastern-Pomo, it seems possible to establish, on the other hand, that subjecthood is not a necessary property of a language on other grounds, since there are apparently languages which show derived relations that are not of the subject-object type. Consider, for example, SCHACHTER’s recent discussions (1976, 1977) of Tagalog.

Tagalog is a verb-initial language, in which the verb may be followed by a number of arguments whose relative order is free but which are marked by prepositions indicating the CR of the NP, only 1 instance of each CR being allowed. However, in most sentence types, one of the NPs bears a special marking, called the ‘topic’ or ‘focus’ marker by students of Philippine languages, and its CR is marked on the verb instead. This is illustrated by the examples in (35) (from SCHACHTER 1976: 494-5):

- (35) a. Mag-salis ang babae ng bigas sa sako
 ERG.T-‘will:take out’ TOP ‘woman’ ABS ‘rice’ LOC ‘sack’
- b. Aalisin ng babae ang bigas sa sako
 ABS.T-‘will:take out’ ERG ‘woman’ TOP ‘rice’ LOC ‘sack’
- c. Aalisan ng babae ng bigas ang sako
 LOC.T-‘will:take out’ ERG ‘woman’ ABS ‘rice’ TOP ‘sack’

ERG = ergative, T(OP) = topic, ABS = absolutive, LOC = locative. I have substituted these CRs for the ‘traditional’ labels used by SCHACHTER: as far as I can tell the correlations are just, even with respect to ergative, which I have substituted for

SCHACHTER's 'actor'. SCHACHTER (1976: 497) carefully distinguishes 'actor' from FILLMORE's 'agent' (1968: 24), which is associated with 'the typically animate perceived instigator of the action', in view of the occurrence of 'actors' like those in (36):

- (36) a. Nagtiis ang babae ng kahirapan
 ERG~actor.T:'endured' TOP 'woman' ABS 'hardship'
- b. Tumanggap ang estudyante ng liham
 ERG~actor.T:'received' TOP 'student' ABS 'letter'

But these are sentence-types that, like that represented by the dative sentences in Kannada, I have argued elsewhere (1971: ch. 9; 1977: §§3.7, 2.8) to be characterized as having an argument which is simultaneously ergative, as 'potential controller', and locative, as 'site' or 'goal' of the state or process.

<22> All of the sentences in (35) can be translated as 'The woman will take the rice out of the sack', but in each sentence only the 'topic' phrase need be definite, so that (35.a) could also be translated as 'The woman will take some rice out of the sack' or 'The woman will take some rice out of a sack' or 'The woman will take the rice out of a sack'. Only the ergative phrase must be definite, since it is marked by the 'topic' preposition and its CR is marked on the verb.

SCHACHTER (1976) shows that properties that have been associated with subjecthood in other languages do not correlate with any one of the phrase-types in (35) and the like. The 'topic' phrase looks the most promising (SCHACHTER 1976: §2), in that it is obligatory, and it is the only NP that can be relativized, in accordance with the KEENAN & COMRIE (1977) hierarchy, whereby if only one NP can be relativized it is the subject. Moreover, it again is the only NP that can launch 'floating quantifiers', which, according to BELL (1974), POSTAL (1976) and others, only NPs which bear the grammatical relations subject, direct object and indirect object have the ability to do. However, 'topic' phrases do not in themselves control reflexivisation, nor do they delete under imperativisation. Further, they are not deleteable under equi. Rather, all of these properties are associated with 'actor' phrases, whether 'topic' or not. Further, only 'actors' control equi (cf. on this KEENAN 1976b: note 9). This distribution of properties is tabulated in (37):

- | | | |
|------|------------------------|-------------------------------|
| (37) | 'Topic' | 'Actor' |
| | obligatory | controller of reflexivisation |
| | uniquely relativisable | victim in imperativisation |
| | quantifier-launching | victim in equi |
| | | controller of equi |

SCHACHTER concludes that ‘there is in fact no single syntactic category in Philippine languages that corresponds to the category identified as the subject in other languages’ (1976: 513).

In the light of our previous discussion, none of this is at all surprising. None of the properties that SCHACHTER mentions are attributable to subjects as such: we come back to this in a moment. More basically still, Tagalog simply fails to fulfil the criterion I proposed initially for determining that a language has subjects. It is not the case that the agent in action sentences shares properties with the argument in ‘intransitives’ that the latter does not share with the patient. They all share the property of eligibility for ‘topic’-hood. And depending on whether the ‘intransitive’ argument is agentive or not it will be marked either like the transitive agent, as in (38):

- (38) Magtatrabaho ang lalaki
 ERG~actor.T:‘will:work’ TOP ‘man’

or as the patient, as in (39):

- (39) Papawisan ang lalaki
 ABS/LOC.T:‘will:sweat’ TOP ‘man’

<23>

Tagalog, then, lacks subjects. [8] In so far as my criterion is a plausible reconstruction of the traditional understanding of subjecthood, and if this notion characterizes a well-defined language type it is a mistake to try to attribute subjecthood to some NP in a Tagalog sentence (as contemplated in e.g. ANDERSON 1978a, on the basis of a criterion that attributed subjecthood to any obligatory (relative to major sentence-types) ‘fossilised topic’). Let us in this light return to the evidence presented by SCHACHTER: we shall find that the relevant generalisations involve the notion principal relation but not that of subject.

Of the properties associated with ‘actors’, they are, with one exception, ones which I have already suggested characterise ergative phrases in other languages. So that in Tagalog it is not exceptional that ‘actors’, i.e. ergative phrases, should undergo imperative deletion or control reflexivisation. Possession of these characteristics does not suggest that ‘actors’ are subjects – it merely confirms that they are ergatives. On the other hand, ‘topic’ phrases, while not subjects, show properties that we have associated with the principal relation, viz. highest accessibility to relativisation, and obligatoriness. In Dyirbal, with no relevant subject-formation, the only accessible relation is the phrase with the principal CR, the absolutive. In Malagasy, the only accessible relation is the derived principal relation in a subject-forming language, the subject NP.

I have not been able to determine the status of floating quantifiers in a range of languages. Moreover, their description remains problematical: it is not clear, for instance, that in English they constitute a unitary phenomenon. However, I can see

nothing incompatible with a suggestion that highest accessibility, or rather ‘de-partability’, with respect to floating quantifiers is also to be associated with the principal relation, the derived principal if it is distinct from the principal CR (given that quantifiers originate outside the clauses they appear in superficially). This is claimed for subjects by POSTAL (1976: 188).

Thus, the evidence from Tagalog is consonant with the ‘topic’ phrase bearing the derived principal relation. But clearly it is not a subject. However, as with subject-forming, this derived principal relation is not found with all sentence types. SCHACHTER (1976: 502-3) points out that ‘existential’ sentences like that in (40):

- <24> (40) May aksidente (kagabi)
 EXISTENTIAL ‘accident’ (‘last night’)
 (‘There was an accident (last night)’)

may lack a ‘topic’. In the related Kapampangan, formation of a ‘topic’ fails in ‘intensive’ or ‘recent completive’ aspect (MIRIKITANI 1972: 119). ‘Topic’-formation is optional in subordinate clauses in Maguindanao (LEE 1964).

The Tagalog topic is not a subject, then; but it is a derived grammatical relation. It is a derived relation that is not associated with a hierarchy of CRs, such that, as in the case of subject-formation, preference is for an ergative phrase, only then an absolutive. Rather, any of a range of CRs are eligible for ‘topic’-hood. This is perhaps associated with the fact that the identity of the CR which is assigned ‘topic’-hood is coded on the verb, in that the lexical identity of the verb itself does not tell us which case phrase is ‘topic’. With a subject, the identity of its CR(s) is determinate for any verb; and, indeed, arguably determinate for any verb class, i.e. any case frame. (For justification of this, see ANDERSON 1977: §2.1). The syntax of Tagalog highlights the inappropriateness of assigning properties like control of reflexivisation and ability to undergo imperative deletion to a derived relation like subject. The frequent coincidence of ergative and subject in subject-forming languages obscures this. However, when we find a derived relation which does not accord a privileged role to ergatives, the case-related status of these phenomena is quite apparent.

The Tagalog ‘topic’ thus has the same kind of status in the grammar as subject, both with respect to its special syntactic role and its neutralisation of CRs: it is a derived principal relation, but it fails to satisfy the criterion for subjecthood. It is not, on the other hand, a TOPIC in any more generally accepted sense.

To facilitate discussion of this we need another term beside subject and topic: I suggest for the Tagalog ‘topic’ the label **PRIME** argument. The Tagalog prime shares with topic only the restriction to definiteness, and the fact that the lexical verb does not select which argument will be topic or prime. According to LI &

THOMPSON (1976: 464), ‘the topic is the ‘center of attention’; it announces the theme of the discourse’. SCHACHTER (1976: 496) points out that the Tagalog prime need not represent the ‘center of attention’, and illustrates this with such examples as that reproduced in (41):

- <25> (41) Kung tungkol kay Maria, hinuhugasan
 ‘if’ ‘about’ LOC ‘Maria’ ABS.T:‘is:washing’
 niya ang mga pinggan
 ERG:‘she’ TOP ‘dishes’
 (‘As for Maria, she is washing the dishes’)

of which he says: ‘the center of attention established by the discourse context ... is clearly Maria, but the pronoun that refers to Maria is the non-topic actor pronoun *niya* and the sentence topic is *ang mga pinggan* ‘the dishes’’. The prime, as we have observed, is also like a subject in participating, as principal relation, in such syntactic processes as relativisation. Concerning topics, LI & THOMPSON (1976: 465-6) observe, on the other hand, that ‘the topic is not involved in such grammatical processes’ and that this ‘is partially due to the fact that the topic...is syntactically independent of the rest of the sentence’. They establish that a topic need indeed bear no selectional relation with the predicate of the sentence. Consider, for example, the example from Mandarin in (42) (LI & THOMPSON 1976: 462):

- (42) Neì-chang huó xìngkuì xiǎofāng-duì lái
 ‘that’-CLS ‘fire’ ‘fortunate’ ‘fire-brigade’ ‘came’
 de kuài
 ADVPARTICLE ‘quick’
 (‘That fire (topic), fortunately the fire-brigade came quickly’)

(For a rather more careful discussion of the prime (called ‘subject’ by him) and its non-susceptibility to interpretation in terms of ‘pragmatic function assignment’, see DIK 1978: §5.4.4).

We are constrained to recognize for the prime a distinct type of derived principal relation from subject. So that even if all languages were to be found to show some kind of derived principal relation (distinct from the basic one), subject is still not a universal, even though it is the principal derived relation in a subject-forming language. This is because there are languages in which the principal derived relation is not subject, but what I have called prime. It is, on the other hand, unnecessary to deny to subject the status of theoretical concept, as argued by FOLEY & VAN VALIN, such that ‘it may label a different entity in the grammar of any language to which it is applied’ (1977: 319). This is to undervalue its domain, to collapse the typological and the language-particular. If I am correct, it is possible to maintain a universal criterion of subjecthood: its limitation consists simply in the fact that not all language systems meet the criterion; not all languages have subjects.

<26> To fill out the typological picture, we may also have to recognise that there are languages in which (despite LI & THOMPSON 1976) even the ‘topic’ in a more generally accepted sense, i.e. not grammaticalized like the prime, together with the ‘focus’, may function as cyclic (principal) relation. This seems to me the consequence of a recent discussion of Hungarian by KISS (1978). Hungarian has subjects: the subject (and predicatives) is characterised by the unmarked form of the noun, and it also controls concord. The topic or topics in Hungarian occupy initial position in the sentence and bear an even middle pitch. The focussed element, the first ‘new’ element (marked by a high fall), is also pre-verbal; otherwise, all arguments follow their predicate. However, it is the topic and focus (the focus being the obligatory component in the pre-verbal complex) that undergo such (cyclic) syntactic processes as raising, for which non-topical non-focussed subjects, for instance, are ineligible. This is illustrated by (43.b) vs. (43.a):

- (43) a. ?KELL, *hogy holnap* BE fizessem a csekket
 ‘needs’ ‘that’ ‘tomorrow’ ‘in’ ‘I:pay’ ‘the’ ‘cheque’
 (‘It’s necessary that tomorrow I pay the cheque in’)
- b. *Holnap* BE kell, *hogy* fizessem a csekket
 ‘tomorrow’ ‘in’ ‘needs’ ‘that’ ‘I:pay’ ‘the’ ‘cheque’
 (‘Tomorrow I need to pay the cheque in’)
- c. *János* AZT mondto, *hogy* AZT szeretné,
 ‘John’ ‘it’:ACC ‘said’ ‘that’ ‘it’:ACC ‘he:would:like’
ha A ZÖLD KALAPOT tenném fel
 ‘if’ ‘the’ ‘green’ ‘hat’ ‘I:put’ ‘on’
 (‘John said that he would like it if I put on the green hat’)
- d. *János* AZT mondto, *hogy* A ZÖLD KALAPOT
 ‘John’ ‘it’:ACC ‘said’ ‘that’ ‘the’ ‘green’ ‘hat’
 szeretné, *ha* feltenném
 ‘he:would:like’ ‘if’ ‘I:put:on’
- e. *János* A ZÖLD KALAPOT mondto, *hogy* szeretné,
 ‘John’ ‘the’ ‘green’ ‘hat’ ‘said’ ‘that’ ‘he:would:like’
ha feltenném
 ‘if’ ‘I:put:on’

<27> and (43.d) and (43.e) vs. (43.c), wherein topics are in italic and focuses in capital letters. (The examples are from KISS 1978, & personal communication.) In (43.a) *kell* is the focus of the main clause; *holnap* is the topic of the embedded sentence, and *be* is its focus. In (43.b), the embedded topic-focus complex has been raised into topic-focus position in the main clause. (Alternatively, *holnap* is the original main clause topic and only *be* has been raised.) In (43.d) *a zöld kalapot*, which in (43.c) is the focus of the most deeply embedded sentence, has been raised into the

next highest sentence; while in (43.e) it has been twice raised to become focus of the main clause beside the original topic *János*. Notice that raising is still to absolutive; only, additionally, a raised topic-focus element must also constitute part of the topic-focus complex in the clause into which it is raised (as again illustrated by (43)). This is unsurprising, as compared with subject-formation, given the independence of topic-hood, as not defined with respect to the case array. However topic-focus complexes are formed, this evidence lends support to the view that such syntactic properties as victimhood for raising are characteristic of derived principal relations rather than subject as such. Derived principalhood may be invested in elements that are prime or subject or topic-focus (or at least, in the case of Hungarian, a combination of subject and topic-focus) or, where these are not uniquely relevant to the cyclic syntax of embedded sentences, absolutive.

6. Subject in ontogeny and phylogeny

Subjecthood is not a necessary property of language. Those universal properties that have been ascribed to subjects are more appropriately associated with some CR; or they are true of subjects by virtue of subject being the derived principal relation in many languages, that is, they are properties of the derived principal relation (whether or not it is distinct from the basic principal relation). Evidence from language acquisition is also consonant with the non-universal, contingent character of subjecthood. Admittedly, the status of GRs is rather difficult to evaluate in studies of such in view of the fact that many investigators have simply assumed the relevance of GRs (or configurations with respect to which they can be defined) to the description of early stages in children's acquisition. Even GRUBER (1967, 1975), who argues that subject evolves ontogenetically from the more primitive notion of topic, nevertheless makes the assumption that subject is 'universal and innate' (1975: 58). However, I am aware of no evidence that children's language develops subjecthood independently of their models: i.e. against the view that learners of English acquire subjecthood from the model language rather than it being an intrinsic property. In this situation evidence concerning a group of language learners 'with virtually no conventional linguistic input' (GOLDIN-MEADOW to appear: §1) assumes some importance in that such a model is absent.

GOLDIN-MEADOW (to appear) reports on a study of the development of a sign language by a group of deaf children of hearing parents. They thus lacked an oral model; and they had not been taught a standard sign language. However, as she (§VI) puts it, 'We have discovered that deaf children of hearing parents, though essentially deprived of all standardized linguistic input, spontaneously develop a gestural communication system'. What is of interest to the present discussion is that the language system the children developed was what would be called an 'ergative language'; syntactically, it resembled Dyirbal rather than English. Specifically, the pa- <28>

tient in ‘transitive’ sentences was grouped in terms of its position and frequency of occurrence with the argument in ‘intransitives’, whether this latter were agentive, or not, and not with the agent in transitives. That is, in the absence of a linguistic model (ergative or accusative), the children developed an ‘ergative language’, one in which there is no evidence of subject-formation. This suggests that subjecthood is learnt from the model provided by adults’ language.

Historically, there is considerable evidence that many, at least, subject-forming languages have developed from earlier ‘ergative’ language-systems which may have been ‘topic-prominent’ (LI & THOMPSON 1976). LEHMANN (1976), for instance, argues that the Indo-European languages are descended from a system in which subjecthood played little or no part but in which the topic was syntactically prominent. Basque, too, is now apparently a ‘mixed’ language, in that both GRs and CRs are relevant in derived structures (HEATH 1974; ANDERSON 1977: §3.5). But in so far as the morphological structure of the language encapsulates earlier syntax, its properties suggest that at an earlier period Basque may have been ‘more purely ergative’, like Dyirbal (ANDERSON 1978b). The verbal morphology (though not the syntax) involves, for instance, a rule like the one in Dyirbal which promotes an ergative to absolutive, as exemplified by the embedded sentence in (11); and the absolutive affixes are consistently distinguished, by form and position, from the transitive agent. (For more general discussion, see e.g. GIVÓN 1971).

Now, given this, and given the currency of subject-forming languages, how are we to reconcile it with the non-universality, and non-innateness, of subjecthood? Why are subjects so prevalent? A crucial factor in the development of subjecthood is perhaps the high-empathy rating of agents. We have seen that the principal relation, i.e. the absolutive, is accorded unmarked initial position in Dyirbal. But the highly empathetic and thus topical agent, or more generally ergative, will tend to override this: thus, the first step towards extension of subject-formation to dative sentences in Kannada appears to be the occupying of initial position by the dative – i.e. ergative locative – phrase. Subject-formation will be appropriate once the dative phrase attracts to itself other principal relation properties, like control of concord and non-oblique inflexion, perhaps (ZIV 1976) in accordance with some hierarchy which is an extension of the non-semantic part of that suggested by KEENAN (1976a).

<29>

Just such a history can be associated with the development of so-called ‘impersonal’ verbs like *hingrian* and *lician* in Old English and Middle English (VAN DER GAAF 1904; VISSER 1963: 1-50). In OE the dative phrase occupies initial position but does not control concord, as in (44):

- (44) ... þe heora þeowas liciap
 ‘you’ ‘their’ ‘customs’ ‘please’:PL

Later, concord is established with the dative, which is now the unique unmarked preverbal argument (a position limited to subjects); and, for example, the dative is deleteable in conjunction reduction under the control of another subject, as in, respectively, (45.a) and (45.b):

- (45) a. Me think we shal be strong enough
 b. I wat at pou has fasted long and hungres nu

(LIGHTFOOT 1977; BUTLER 1977; MCCAWLEY 1976). Eventually, the dative subject is accorded a non-oblique inflexion. A similar development is incipient in Hebrew (possibly under outside influence – ZIV 1976).

Certainly, these instances involve extension rather than initiation of subject-formation, but the latter could plausibly follow a similar path, with the agent in transitive sentences usurping the properties of the principal relation, the initial step in this direction being positional prominence based on high empathisability. This would create a discrepancy between ‘intransitive’ sentences, wherein the principal relation remains the absolutive (whether or not it is also ergative) and the ‘transitive’, in which the de facto principal relation is the agent not the absolutive. This is resolved by assigning to them both the same derived principal relation, a relation we can conveniently call subject. [9] In so far as this is assigned any function it is perhaps as the ‘unmarked’ slot for topics.

Those studies of (first language) acquisition which have tried to avoid premature ascription of GRs to children’s utterances tend to support a derivative status for subjecthood and, in particular, the view that the topicalized agent is crucial in the evolution of subjecthood. Both BOWERMAN (1973) and BROWN (1973), for example, find that at an early stage almost all of the subjects in their samples are agents: in adult speech agent subjects are much less preponderant. BATES (1976: 196-7) suggests that the acquisition at about the same time of three distinct syntactic properties by the two Italian children she studied may reflect their discovery of the notion subject: previously their syntax involved simply the interaction of CRs with topic-comment structure. As she puts it: ‘Perhaps these children discover SVO, subject pronouns, and subject-verb agreement around the same time because they have just discovered the concept of syntactic subject. Prior to that time, semantic agents were mapped like other arguments of the predicate, in accordance with their relative usefulness as comment or topic’.

<30>

One final speculation. There remains one anomaly in the syntax of Tagalog as we have described it, viz. as involving a derived principal relation, prime, which appears to be a grammaticalized topic. Recall that, on the other hand, only ergative NPs (‘actors’) can be deleted by *equi*, a property otherwise associated with the principal relation. The deleteable argument is in an embedded sentence; so, one might reasonably expect that the prime, the principal relation at that point, would be the

victim. Can this be again the first step towards development of subject-formation? In other Philippine languages, this has been carried further, in that the ‘actor’ occupies a fixed position – e.g. immediately after the verb (Pangasinan), or even, along with the prime argument, controls concord on the verb (Kapampangan) – see KEENAN 1976b: 294, SCHACHTER 1976: 507; MIRIKITANI 1972: §3.4.2. Malagasy, which is related to the Philippine languages, has a derived principal relation that shares a number of properties with the prime of Tagalog. The NP in this relation is definite, and, according to KEENAN (1976b: 297), is topical in main clauses. However, the derived principal in Malagasy seems to be a subject rather than a prime. The derived principal relation is sentence final, and in each of the sentences in (46) it is immediately preceded by the question marker, as is general in the language (KEENAN 1976b):

- (46) a. Marary ve ny zanan-dRabe
 ‘sick’ Q ‘the’ ‘child:of’-Rabe
 (‘Is Rabe’s child sick?’)
- b. Lasa ve ny mpianata
 ‘gone’ Q ‘the’ ‘students’
 (‘Have the students gone?’)
- c. Nanome vola an-dRabe ve ianao
 ‘gave’ ‘money’ ACC-Rabe Q ‘you’
 (‘Did you give money to Rabe?’)

<31> The ‘transitive’ agent in (46.c) is marked off as principal relation in the same way as the arguments in the ‘intransitive’ (a) and (b) whether agentive or not. And there are many other principal relation properties shared by just these arguments and not the other arguments in (46.c). In order for a non-agent in an action ‘transitive’ to come to occupy this position and display the appropriate properties the verb must undergo morphological change and the agent be attached to it, as in (47.b):

- (47) a. Manasa ny lamba Raso
 ‘wash’ ‘the’ ‘clothes’ Raso
 (‘Raso washes the clothes’)
- b. Sasan-dRaso ny lamba
 ‘washed:by’-Raso ‘the’ ‘clothes’
 (‘The clothes are washed by Raso’)

It therefore seems appropriate to attribute subjecthood to the NPs in the derived principal relation in (46) and (47), and to regard (47.b) as passive. So Malagasy has subjects, it would appear, but subjects similar in some respects to the prime of the related Philippine languages. Does the Malagasy subject represent the endpoint of a development from a situation like that to be found in these languages, involving

usurpation of the prime as principal relation via increasing prominence of the ergative phrase?

Notes

<32>

Earlier versions of this paper were presented at the University of Essex, May 18 1978, and in the Linguistic Circle of Copenhagen, May 23 1978. I am grateful to all those who contributed to the ensuing discussions, particularly Jacques Durand, David Kilby and Yorick Wilks; and Henning Andersen, Niels Ege and Hartmut Haberland. See too LURIE 1969.

Mauricio Brito de Carvalho and Mike Davenport also contributed blamelessly to the evolution of what follows.

1. It is therefore unnecessary to entertain a weaker hypothesis whereby GRs and GRs are equally available throughout a derivation, instead of the claim made here that GRs in a component sentence, S_i are available only from the cycle following that which applies to S_i . For English we can also maintain that once subject-formation has taken place the CR(s) of the affected NP are no longer available; in other languages, notably 'mixed ergative' languages, this does not seem to be the case: see §§2 & 5 (and notes 3 & 4).

JOHNSON (1977: 685) would allow for such phenomena as are exemplified by (5) in terms of attributing deleteability in Maori imperatives to initial rather than cyclic subjects. Deletion in imperatives then can refer either to the cyclic or the initial subject, depending on the language. However, it seems to me that the introduction of this kind of globality of relational reference into grammatical theory represents a very undesirable weakening of the hypotheses it embodies: see note 8. (We return below (§2) to another proposal for a 'subsetting condition' made by Johnson which, it seems to me, is equally inappropriate). It is, I suggest, equally undesirable to permit appeal to arbitrary differences in order of application of the same rule in different languages (cf. e.g. BELL (1974) on reflexivisation and equi in Cebuano).

2. Thus, whereas in DIXON's formulation absolutes are both trigger and victim in equi, GEORGE must weaken the specification of the controller to being simply any term of the main clause (1974: 272). GEORGE objects to the absolute-based analysis on two grounds: 'Not every equi trigger is absolute in surface structure' and 'not every absolute is a potential equi target' (*ibid*). In support of his first point he adduces the sentence in (i):

- (i) balan dʒugumbil baŋgul yaʒangu wawun
 CLS 'woman' CLS:ERG 'man':ERG 'fetch':NONFUT
 nayinbaga walmbilŋaygu bagum wuɖugu burbilŋaygu
 'girls':DAT 'call':ŋay:PURP CLS:DAT 'fruit':DAT pick':ŋay:PURP
 ('man fetched woman to get girls up to pick fruit')

concerning which he observes that ‘the apparent case of the equi trigger *nayinbagu* is objective <=dative – JA>, not absolutive’. But this dativehood is assigned in the course of application of the *-ŋay* (promotion to absolutive) operation, and thus the crucial phrase is indeed a cycle-initial absolutive. The fact that the trigger is a surface dative is irrelevant. His second point is concerned with a limitation in complement sentences not found with unembedded sentences. There are in simple sentences two *-ŋay* variants, shown in (ii):

- (ii) a. bayi yara baŋgun ɖugumbiɽu balgalŋaju
 CLS ‘man’ CLS:ERG ‘woman’:ERG ‘hit’:ŋay:NONFUT
- b. bayi yara bagun ɖugumbilgu balgalŋaju
 CLS ‘man’ CLS:DAT ‘woman’:DAT ‘hit’:ŋay:NONFUT

both corresponding to (8.b). However, only the absolutives in (ii.b) and (8.b) can be deleted under equi: embedding of (ii.a) as in (11) and deletion of the absolutive under identity with the main clause absolutive gives a deviant sentence. This is associated with the semantics of the construction; the initial absolutive that appears as a dative in the *-ŋay* construction in (11) is ‘implicated’ in the event. DIXON comments: ‘It appears that in view of the deep (i.e. semantic) import of an implicated phrase it makes no sense to have a sentence whose V<erb> C<omplex> is in *-ŋay* form and implicated <i.e. bearing the purposive marker, glossed ‘for’ in (11) and (i) – JA>, but whose ‘goal’ NP is not in the dative inflection (i.e. is not implicated)’ (1972: 69). However these phenomena are to be characterised, it is not clear that they present a problem for the analysis proposed by DIXON.

3. Similarly, those aspects of the grammar Yidjŋ which DIXON (1977: §5.1.2.) argues provide evidence for a ‘nominative-accusative’ pattern are quite irrelevant to this: both imperativisation and agentive particles like *granang-ar* (which ‘indicates that the referent of the S [intransitive argument –JA] NP was the first to perform a certain action’ (p. 387)) invoke agents, i.e. an ergative either alone (in a transitive structure) or in combination with *abs* (in an intransitive structure). As in Dyirbal, only pronouns show evidence of subject-formation (§3.6.2); but unlike Dyirbal, and like English, subject-formation apparently suppresses the CR(s) of the subject, at least as evidenced by the preferred patterns of conjunction reduction (DIXON 1977: §5.1.3). In Dyirbal, only absolutives can function as controller and victim in conjunction reduction; even pronouns, with nominative-accusative morphology, obey this requirement (as we shall see below: cf. (15)-(18)). In Yidjŋ, only nominal absolutives and only pronominal subjects can control and undergo deletion in coordinations; in each instance the derived principal relation is involved.

Misattribution of ergative-tied properties to subjects is, as we have seen, rather widespread, and it (or at least premature attribution) undermines the conclusions that can be drawn from a large range of typological observations. Consider, for instance,

SMITH-STARK's otherwise enlightening (preliminary) discussion (1976) of Pocomam (a Mayan language of Guatemala). There he does indeed consider the possibility that various properties often attributed to cyclic-clause subjects (like control of reflexivisation) belong with ergatives (in my sense, not his). To these I would add imperative-*you* deletion (for the same reason as in Dyirbal and Yidiñ and English). Indeed, as we would anticipate, reference to relations in the cyclic clause is in general to CRs.

However, it is not clear that the properties attributed to embedded 'subjects' in Pocomam are not also ergative-tied. His exemplification leaves this uncertain, at least. Take, for example, the coreference constraints associated with a verb like *č'ik'a:h* 'begin', which takes a complement in which the NP in an intransitive structure must be identical with the NP in the main clause, and, if it is transitive, the 'agent' must show identity. Thus, we apparently have the grouping associated by my criterion with subjecthood. Similarly, the phenomenon SMITH-STARK refers to as 'copying' involves embedded 'agents' and the NP in intransitives. However, all of the examples of embedded intransitives provided contain action verbs, wherein the NP is [abs, erg] (cf. (12.c)). Once again this leaves open the possibility that these are ergative-tied properties. If this is so, then subject-formation in Pocomam is much more restricted than suggested by SMITH-STARK's discussion. It is evident in 'action-nominalisations' marked for 'possessor' (provided these too can be formed on non-ergative verbs) and in verbs in 'incompletive aspect', which are (at least historically) derived from action nominalisation structures (as is rather a common phenomenon).

Notice here that JOHNSON cites SMITH-STARK's discussion of Pocomam as providing additional support for the 'transitive/intransitive sub-setting condition' he proposes in relation to Dyirbal. This support is not at all apparent: the phenomena I have alluded to are either ergative-tied or possibly, in embedded sentences, subject-tied. Other phenomena (deletion under identity, highest accessibility to relativisation) are associated with absolutes, the principal relation (either uniquely principal, or jointly with subject – if Pocomam has semi-subject-formation (ANDERSON 1977: §3.5; below, §5). The appeal to a 'subsetting condition' is not only undesirable but also, again, unwarranted.

<35> 4. SRIDHAR (1976a: 587-8) also argues, as we have noted, that deletion in the derivation of the participial construction illustrated by (i):

- (i) *āf̄siḡe* *hogi* *hari* *kelasa* *māḡidanu*
 'office':DAT 'having:gone Hari 'work' 'did'

and (ii):

- (ii) hari āf̄sige hōgi kelasa māḍidānu
 Hari 'office':DAT 'having:gone' 'work' 'did'

involves subjects as controller and victim, and that datives such as those in (18) control and undergo such deletion, as exemplified by (iii):

- (iii) idī dina kelasa māḍi avanige tumbā sustayitu
 'whole' 'day' 'work' 'having:done' 'he':DAT 'much fatigue' 'happened'

and (iv):

- (iv) tanna tappu arivāgi avānu baḥaḷa paścāttāpa paṭṭa
 'self's' 'mistake' 'having:realised' 'he' 'much' 'regret' 'felt'

But again subjecthood as such is not necessarily involved here, though, in the absence of more data, the interpretation is uncertain.

All of these victims and controllers in fact share the CR ergative, either as agent, alone or in combination with abs ((i) and (ii) and participial clause in (iii)), or in combination with loc (with 'experiencer' verbs: (iii) and (iv)). However, in order for these CRs to be available subject-formation would have to be as in Dyirbal rather than English. Notice too that not all victims and controllers in instances of this construction are ergative phrases; consider the following Telugu examples (from RAMARAO 1971: 46):

- (v) addam kindapaDi, pagilipooyindi
 'mirror' 'having:fallen' 'broke'

If this is true of Kannada too, the formulation would then have to say that the controller and victim are either both ergative or both absolutive. However, although I have not been able to investigate this, I doubt whether even such a constraint can be maintained. Certainly, the examples provided in SRIDHAR (1976b: e.g. 223-4) strongly suggest that such a restriction does not apply. Thus, a description in terms of CRs does not seem to provide an alternative to attributing subjecthood to datives.

<36>

But another characterisation, involving in part (and contingently) subjecthood, is perhaps preferable. Subject-formation, in terms of the proposal made in ANDERSON (1977: §3.6) discussed in §6, involves substitution (English) or addition (Dyirbal) of erg to the CR of the NP undergoing subject-formation, so that subjects are derived ergatives: in a subject-forming language the derived principal relation is erg. The subjects in (i)-(v) are ergative by virtue of subject-formation; the datives in (iii) and (iv) are already ergative, even in the absence of subject-formation. Thus the generalisation is that the controller and victim in this construction must be ergative, either, since the NPs concerned are not in the cyclic clause (but rather the constituent clauses of a coordination), ergative as a result of subject-formation or ergative as a basic CR.

In this respect, such a construction is, in a sense, closer to according subjecthood to datives than the equi phenomena revealed, in that, despite their ergativity, dative NPs are not eligible for deletion under equi (or passivisation or raising), as not being ergative by virtue of subject-formation. That is, equi is limited to a NP in an embedded sentence that is only ergative (by virtue of subject-formation, if there are any absolutive victims – otherwise, ergative underlyingly) rather than both ergative and locative (as is the case with the dative NPs). This also seems to be true of Hebrew possessive predications (ZIV 1976: §4.2). Conversely, in Hindi-Urdu such dative NPs are accessible to equi, but do not delete in the corresponding participial construction (KACHRU *et al.* 1976: §5.3.3). (This is the first para. 5.3.3; the reference in the text that follows, however, is to the second para. 5.3.3!). The integration of the non-subject forming sub-system into the major (subject forming) system is thus incomplete with respect to different processes.

5. Thus, the development of subjecthood is associated with the high empathy rating of arguments that are high on the humanness hierarchy. This is reflected in restrictions on subjects in different languages. A very transparent illustration of this is provided by Navajo; though, in fact, Navajo may display a prime relation (§5) rather than a subject (FOLEY & VAN VALIN 1977), i.e. is still ‘pre-subject’ (§6). HALE (1973) describes a process in the language whereby ‘subject’ and ‘object’ are interchanged in position and the third person ‘object’ prefix is changed from *yi-* to *bi-*. Corresponding to (i):

- (i) ma'íitsoh shilíí' yiyiisxí'
 'the:wolf' 'my:horse' 'killed'
 S O V

<37> there is (ii):

- (ii) shilíí' ma'íitsoh biisxí'

However, the process fails to apply if the ‘object’ is lower on the humanness hierarchy than the ‘subject’, as in (iii):

- (iii)a. léécha'a'í leets'aa' yilnaad
 'the:dog' 'the:plate' 'licked'
 b. diné dził yoo'í'
 'the:man' 'the:mountain' 'sees'

(iv) are deviant:

- (iv)a. leets'a léécha'a'í bilnaad
 b. dził diné boo'í'

Correspondingly, if the ‘subject’ of the *yi-* form is lower than the ‘object’ on the hierarchy the sentence is deviant, as is (v):

- (v) *tó dibé ayííléél
 ‘the:water’ ‘the:sheep’ ‘swept:off’

Only the interchanged variant is viable:

- (vi) dibé tó ayííléél

That not a simple animate/inanimate dichotomy is involved is illustrated by (vii):

- (vii)a. diné bíìh yiyiisxí
 ‘the:man’ ‘the:deer’ ‘killed’
 b. ?bíìh diné biisxí

and (viii):

- (viii)a. ?lééchaa’í shiye’ yishxash
 ‘the:dog’ ‘my:son’ ‘bit’
 b. shiye’ lééchaa’í bishxash

In (vii), with human ‘subject’ and non-human ‘object’ in the *yi-*variant the corresponding inverted sentence is dubious; in (viii) the *yi-*version is dubious in that the ‘object’ outranks the ‘subject’, and the inverted sentence is unproblematical. Indeed the independence of the humanness hierarchy (what HALE calls the ‘dimension’ of ‘relative potency’) is rather well illustrated by (ix):

- (ix)a. ‘ii’ni’ híí’ yiyiisxí
 ‘lightning’ ‘the:horse’ ‘killed’
 b. híí’ ‘ii’ni’ biisxí

and (x):

- (x) a. níłtsa’ shiye’ ‘náístléé’
 ‘rain’ ‘my:son’ ‘wet’
 b. shiye’ níłtsa’ ‘nábístléé’

in that both versions are viable in each case, ranking ‘lightning’ with ‘horse’ and ‘rain’ with ‘son’.

Such a hierarchy is manifested in a rather different fashion in Nepali. There we find a particle which marks an (agentive) participant as participating in the event in a more ‘quintessentially human’ manner than would otherwise be expected, either from the character of the participant or of the predicate. So that in (xi.a):

<38>

- (xi)a. ma-lai us-baata yo milyo
 'I-'to' 'he'-'from' 'it' 'got'
 b. mai-le us-baata yo liyen
 'I'-le 'he'-'from' 'it' 'got'
 ('I got it from him')

the recipient is not agentive (= 'I received it from him') whereas in (xi.b) the recipient is marked as agentive by the presence of *le* (= 'I took it from him'). (Examples and interpretations are from VERMA 1976b: 282). Where a predicate is inherently agentive (i.e. inherently high on the hierarchy) *le* is not used to mark the agent (except in the perfective where it is general) unless the agent is inanimate (i.e. low on the hierarchy), as in (xii.b) (vs. (xii.a)):

- (xii)a. ram (*-le) samay dekhaauncha
 Ram 'time' 'shows'
 <39> b. ghari-le samay dekhaauncha
 'clock'-ERG 'time' 'shows'

6. FIENGO observes (1977: 37, note 4) that 'Proponents of 'Relational Grammar' have held that the placement of the subject in a *by*-phrase is contingent upon a rule that changes objects into subjects. The NP in the *by*-phrase has 'chômeur' status as a result of the application of this rule. It is difficult to see how this can be maintained in the light of examples such as <(28)>'. This is unproblematical if 'spontaneous demotion' (COMRIE 1977) is allowed; but the distribution of prepositions remains unexplained. However, in a CG, *by* here and in passives marks an ergative that fails to occupy subject position.

7. Optionality of subject formation may account for other apparent puzzles such as the 'two passives' of Bahasa Indonesia recently argued for by CHUNG (1976). As well as the 'canonical passive' illustrated in (i):

- (i) Buku itu di-batja (oleh) Ali
 'book' 'the' PASS-'read' ('by') Ali

vs. the corresponding active (ii):

- (ii) Ali mem-batja buku itu
 Ali TRANS-'read' 'book' 'the'

there also exists a construction illustrated by (ii):

- (iii) Buku itu saja batja
 'book' 'the' 'I' 'read'

vs. (iv):

- (iv) Saja mem-batja buku itu
 'I TRANS-'read' 'book' 'the'

(iii) differs from the canonical passive (i) in lacking the passive prefix (and, for that matter, the transitive prefix of (ii) or (iv)) and in not moving the agent to post-verbal position (optionally marked by *oleh*); it is also only possible with pronominal agents and if the preposed phrase is definite. CHUNG shows, however, that (iii) does not involve topicalisation, in that the 'preposing' is cyclic (§3), clause-bounded (§4), non-root (§5), governed (§6) and can co-occur in the same sentence as non-controversial topicalisation processes (§7). Moreover, the proposed NP shares various properties with, in particular, the derived subject of (i): specifically it undergoes subject-to-object raising (§2.1), is the victim of equi in purpose clauses (§2.2) and undergoes what CHUNG calls (§2.3) derived subject raising. Subject-to-object raising and deletion by equi is otherwise limited to the subjects of embedded sentences. However, we have seen that such processes are rather to be associated with the principal relation: in a subject-forming structure this is the subject; otherwise, the absolutive. I suggest that the initial NP in (i) has indeed undergone passive in a subject-forming sentence; but that (iii) simply lacks subject-formation and the initial NP has this position and its eligibility for subject-to-object raising and equi by virtue of being the absolutive (the principal relation in a structure lacking subject-formation). It behaves like a subject by virtue of their both being (derived) principal relations. This is also compatible with passive subjects and the proposed NP, but not active subjects, being eligible for derived subject raising, as illustrated by (v):

- (v) Mobil ini sulit untuk di-perbaiki (oleh) kami
 'car' 'this' 'hard' 'for' PASS-'repair' 'by' 'us'
 ('This car is hard to be repaired by us')

(canonical passive) and (vi):

- (vi) Mobil ini sulit untuk kami perbaiki
 'car' 'this' 'hard' 'for' 'us' 'repair'

(putative non-subject-forming) compared with (vii):

- (vii) *Kami sulit untuk mem-perbaiki mobil ini
 'we' 'hard' 'for' TRANS-'repair' 'car' 'this'

This operation is limited to non-agent principal relations in transitive embedded sentences.

If this is just, then Bahasa Indonesia has only one passive, but subject-formation is optional in transitive sentences with pronominal ergatives and definite absolutives. Such a suggestion receives some support from the fact that the ergative phrases in sentences like (iii) do not behave like the 'passive-chômeur' in (i)

(CHUNG, §11). Apart from the positional difference (like all ergatives, if subjects are derived ergatives (ANDERSON 1977: ch. 3), the agent in (iii) is pre-verbal), the agent in (iii) is much more acceptable as a controller of equi than the passive-chômeur, as exemplified in (viii):

(viii) (?)Sendjata itu kita buka untuk mem-perbaiki-nja
 'weapon' 'the' 'we' 'open' 'for' TRANS-'repair'-'it'

<41> vs. (ix):

(ix) ??Sendjata itu di-buka (oleh) Ali untuk mem-perbaiki-nja
 'weapon' 'the' PASS-'open' 'by' Ali 'for' TRANS-'repair'-'it'

Compare the active (x):

(x) Kita mem-buka sendjata itu untuk mem-perbaiki-nja
 'we' TRANS-'open' 'weapon' 'the' 'for' TRANS-'repair'-'it'

Similarly, the agents in (iii) etc. have a higher empathy rating than the passive-chômeur, which is unhappy with the second-person: i.e. unlike the agent in (iii), 'the passive chomeur acts as an oblique constituent with respect to empathy' (CHUNG, p. 91). Thus, associated with (iii) and the like there is no evidence of subject-formation and passivisation; rather, the proposed phrase shares properties with subjects on the basis of principal-relation-hood.

Notice that Maori, on the other hand, may be a language which shows a large subset of sentences lacking subject-formation obligatorily (for particular predicates) rather than optionally. Certainly, with transitive so-called 'stative' verbs, the derived principal in unmarked (non-passive) transitive sentences is not the agent. Compare the sentences in (xi) (from BIGGS 1969: ch. 32):

- (xi)a. Ka hari a Rewi i te kiriimi
 P 'carry' ART Rewi P 'the' 'cream'
 ('Rewi carries the cream')
- b. Ka inumia te wai ete tangata
 P 'drink':PASS 'the' 'water' 'by' 'the.man'
 ('The water is drunk by the man')
- c. Ka hinga te iwi nei i a Hongi
 P 'defeat' 'the' 'tribe' 'this' P ART Hongi
 ('This tribe was defeated by Hongi')

(xi.a) is a transitive with agent as derived principal; (xi.b) is passive, the verb *inu* is marked as such and the non-subject agent is indicated by *e*. (xi.c) is not passive, but the agent is not in subject position. The agent assumes principal status only in the corresponding 'causative' to sentences like (xi.c). Compare the pair in (xii):

- (xii)a. Kua ora koe i ahau <42>
 PERF 'save' 'you' P 'me'
 ('You have been saved by me')
- b. Kua whakaora ahau i a koe
 PERF CAUS:'save' 'me' P ART 'you'
 ('I have saved you')

(examples from KRUPA 1968: 86). *Whaka-* is the 'causative' prefix.

8. SCHACHTER (1976: §§6-7) also considers the possibility that 'Actor-Topics' are 'primary subjects', i.e. are both surface and initial subjects, whereas other Topics are only derived subjects, and non-Topic Actors are displaced initial subjects. In this way the 'subject properties' attributable to Topics characterize derived subjects, whereas the 'subject properties' associated with Actors are true of initial subjects, even if they are not subjects (i.e. Topics) at the appropriate point in the derivation. Some such possibility is, as we have seen (note 1), apparently envisaged (as a 'subsetting condition': 'initial'/'derived') for a number of cases by JOHNSON (1977: 684-5). Concerning the situation in Achenese (see LAWLER 1977) for instance, he suggests that 'in some languages the verb agreement trigger is the initial, rather than the 'cyclic', SUBJ<ect>'. Similarly, control of reflexivisation and equi in Tagalog is associated with the 'initial subject' (the Actor) whether or not it is also the 'cyclic subject' (the Topic).

However, as SCHACHTER (1976: 511) points out, there are many sentences in Tagalog (such as (39)) with no overt or recoverable 'actor'. These will lack an initial subject, unless we resort once again to a 'transitivity subsetting condition' (recall the discussion in §2), such that the initial subject is the 'actor' in transitive sentences but, say, the absolutive in intransitives (though, there are, of course, intransitive actor sentences, such as (38)): subjecthood again involves a syntactically irrelevant disjunction. Further, as already observed, the possibility of appeal to initial subjects from other stages in the derivation constitutes a very undesirable enhancement of the power of the theory and a consequent diminution in the interest of possible predictions. For instance, Schachter also indicates that if Actors are initial subjects, then non-Topic Actors are *chômeurs*, and should lack the properties associated with 'terms' and specifically subjects. However, as we have seen, 'Actors, whether Topic or not, control reflexivisation and equi, contrary to the predictions of the relational annihilation law, whereby such NPs displaced from termhood cease to have these capacities; unless their displacement follows equi and reflexivisation (cf. BELL 1974). But this won't allow for the fact that the victim in equi (which is in an embedded sentence) must be an 'Actor'/'initial subject'. The ability to appeal to the NPs' initial subjecthood enables us to avoid this problem, but it renders the notion *chômeur* vacuous: *chômeurs* act like *chômeurs* except when we don't want them to.

We have again a ‘blocking device’ which renders the relevant hypotheses invulnerable to a particular class of evidence.

- <43> 9. The few instances I am aware of that show development of an ergative from a subject-forming (sub-)system involve reinterpretation of a passive construction as the unmarked structure for (a subset of) transitives (see e.g. PRAY 1976). Possible examples in the case of languages with shallow recorded histories are generally difficult to demonstrate: it may be that rather than some Polynesian languages developing an ergative system via reinterpretation of passive constructions (HOHEPA 1969), it is the subject-forming languages in the group that have undergone an evolution like that tentatively proposed below for Tagalog (see too on Micronesian, JACOBS 1976).

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