

Passive and Inversion in Kannada

Author(s): Matthew S. Dryer

*Proceedings of the Eighth Annual Meeting of the Berkeley Linguistics Society* (1982), pp. 311-334

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

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

---

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

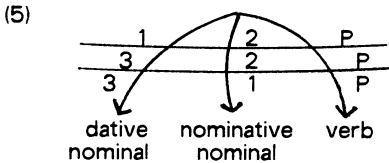
## Passive and Inversion in Kannada

Matthew S. Dryer  
University of Alberta

In a number of recent papers, Sridhar (1976a, 1976b, 1979) has described a construction in Kannada, a Dravidian language of south India, involving dative subjects, as in (1) to (4).<sup>1</sup>

- (1) *avaL-ige ibbaru mak-kaLu idd-aare.*  
she-dat two child-plur,nom be-3pl  
She has two children.
- (2) *nan-age nin-na dhvani keeLis-itu.*  
I-dat you-gen voice,nom hear-past,3sg,neut  
I heard your voice.
- (3) *avaL-ige uttara-gaLu gottaad-avu.*  
she-dat answer-plur,nom learn,past-3pl,neut  
She learned the answers.
- (4) *candra-nige avaLu iShTa.*  
Chandra-dat she,nom like  
Chandra likes her.

Similar constructions in various other languages have been analysed in Relational Grammar as involving a rule of Inversion, as in (5).<sup>2</sup>



This analysis is proposed for Kannada by Perlmutter (1978b) on the basis of the data in Sridhar (1976a, 1976b). This analysis has also been proposed for similar clauses in the following languages: Georgian (Harris, 1981), Choctaw (Davies, 1981), Italian, Japanese and Quechua (Perlmutter, 1979), and Russian (Perlmutter, 1978b). I will argue here that data from passive sentences provides additional evidence for an inversion analysis of the dative subject construction in Kannada. I will also propose an analysis for the passive versions of dative subject sentences.

Sridhar has shown that the dative nominal in this construction possesses the syntactic properties in (6), which are otherwise associated only with nominative subjects in Kannada.

- (6) a. Controller of Reflexivization.  
b. Controller of Participial Equi.<sup>3</sup>  
c. Victim of Participial Equi.  
d. Occurs in clause-initial position in unmarked word order.

These properties are illustrated by the examples in (7) to (9).

- (7) *candra-nige tan-na taayi iShTa.*  
Chandra-dat refl-gen mother,nom fond  
Chandra is fond of his mother.
- (8) [0 *bisili-nalli tirugi*] *sureeSa-nige baayaarike aay-itu.*  
Ø sun-in wander,ptcpl Suresha-dat thirst happen-3sg,neut  
Having wandered in the sun, Suresha became thirsty.

- (9) [Ø heNDati-ya jnaapaka bandu] raama  
 Ø wife-gen remembrance,nom come,ptcpl Rama,nom  
 vihvalanaad-a.  
 go.bersek-3sg,masc  
 Remembering his wife, Rama went berserk.

Sridhar also claims that the dative nominal can be an Equi victim, citing (10) and (11), with the dative subject sentences corresponding to the subordinate clauses in (10) and (11) given in (12) and (13).

- (10) avaL-ige [Ø maduve aaga-lu] iShTa-villa.  
 she-dat Ø marriage happen-inf desire-not  
 She does not want to get married.  
 (11) avanu [Ø koppa-kke varga-vaag-alu] iShTapaD-uvud-illa.  
 he,nom Ø Koppa-dat transfer-happen-inf want-pres-not  
 He doesn't wish to be transferred to Koppa.  
 (12) avaL-ige maduve aay-itu.  
 she-dat marriage become-past,3sg,neut  
 She got married.  
 (13) avan-ige koppa-kke varga-vaay-itu.  
 he-dat Koppa-to transfer-happen-past,3sg,neut  
 He was transferred to Koppa.

These examples are exceptional in that the dative nominal cannot otherwise be an Equi victim, as in (14) and (15).

- (14) \*candra-nige [Ø uttara-gaLu gottaag-alu] iShTa-villa.  
 Chandra-dat Ø answer-pl,nom learn-inf want-not  
 Chandra doesn't want to learn the answers.  
 (15) \*avanu [Ø candra iShTa-vaag-alu] prayatnis-id-a.  
 he,nom Ø Chandra,nom like-become-inf try-past-3sg,masc  
 He tried to like Chandra.

Significantly, the Equi clauses in (10) and (11) also allow nominative subjects, as in (16) and (17).

- (16) avaLu maduve aad-aLu.  
 she,nom marriage become,past-3sg,fem  
 She got married.  
 (17) avanu koppa-kke vaarga-vaad-anu.  
 he,nom Koppa-to transfer-become-3sg,masc  
 He got himself transferred to Koppa.

Since the examples in (10) and (11) can be analysed as involving a nominative subject as the Equi victim, the natural conclusion is that the dative nominal cannot be an Equi victim.

Sridhar further argues that the nominative nominal in inversion clauses, e.g. *makkaLu* 'children' in (1), behaves as a subject only in its nominative case marking and in controlling verb agreement. Note, for example, the plural verb agreement with *makkaLu* 'children' in (1). He argues that the nominative nominal fails to behave as subject in the following ways.

- (18) a. Cannot control Participial Equi.  
 b. Cannot be a victim of Participial Equi.  
 c. Cannot be a victim of Equi.

These properties are illustrated by the following examples.

- (19) \*[ $\emptyset$  nann-annu cennaagi maataaDisi] nan-age avalu  
 $\emptyset$  I-acc nicely talk,ptcpl I-dat she,nom  
 iShTa aad-alu.  
 fond become,past-3sg,fem  
 Having talked to me nicely, I liked her.
- (20) \*[candra-nige  $\emptyset$  keeLisi] naanu hood-e.  
 Chandra-dat  $\emptyset$  hear,ptcpl I,nom go,past-1sg  
 Chandra having heard me, I left.
- (21) \*raama [aval-ige  $\emptyset$  iShTa aag-alu] prayatnis-id-a.  
 Rama,nom she-dat  $\emptyset$  like become-inf try-past-3sg,masc  
 Rama tried to be liked by her.

Sridhar also argues that the nominative nominal cannot control Reflexivization, on the basis of the example in (22).

- (22) \*tan-age soomanu tumba iShTa.  
 self-dat Soma,nom much like  
 Soma is very fond of himself.

The unacceptability of (22) seems to be due, however, not to the nominative nominal controlling Reflexivization, but rather to the dative nominal being reflexive. \* Thus contrast (22) with the acceptable (23).

- (23) tan-na taayi-ge soomanu tumba iShTa.  
 refl-gen mother-dat Soma,nom much like  
 His (=Soma's) mother likes Soma very much.

In (23), the nominative nominal is controlling Reflexivization. Thus both nominals in the dative subject construction are potential controllers of Reflexivization.

Sridhar's papers are primarily devoted to showing that the dative nominal in the dative subject construction behaves as subject with respect to various rules, and that the nominative nominal does not. His evidence thus shows that the dative nominal is a subject at some level. His evidence does not show at what level the dative nominal is subject. Nor does it show that the nominative nominal is a direct object at some level. Evidence of this sort is provided by passive clauses which correspond to inversion clauses. Observe first normal passivization, illustrated in (24) and (25).

- (24) ravi nann-annu nooD-id-a.  
 Ravi,nom I-acc see-past-3sg,masc  
 Ravi saw me.
- (25) naanu ravi-yinda nooD-alpaTT-e.  
 I,nom Ravi-instr see-passive,past-1sg  
 I was seen by Ravi.

In passive clauses, the initial direct object is the final subject: it occurs in the nominative case and controls verb agreement. As shown below, it also functions as subject with respect to other rules. The subject chomeur in passive clauses occurs in the instrumental case and does not behave as subject with respect to any rules.

Consider now the following examples of inversion sentences.

- (26) candra-nige nan-na dhvani keeLis-itu.  
 Chandra-dat I-poss voice,nom hear-past,3sg,neut  
 Chandra heard my voice.

- (27) ravi-ge      uttara-gaLu      gottaad-avu.  
Ravi-dat answer-pl,nom learn,past-3pl,neut  
Ravi learned the answers.
- (28) gurugaL-ige pustaka-gaLu      beekaag-ittu.  
teacher-dat book-pl,nom need-past,3sg,neut  
The teacher needed the books.
- (29) aval-ige eradu kivi-gaLu      i-ve.  
she-dat two ear-pl,nom be-3pl,neut  
She has two ears.

Corresponding to each of the inversion sentences in (26) to (29) are two passive versions, one with the initial subject in the instrumental case, the other with the initial subject in the dative case. The passive versions of (26) to (29) with the initial subject in the instrumental case are given in (30) to (33).<sup>5</sup>

- (30) candra-ninda nan-na dhvani      keelis-alpaTT-itu.  
Chandra-inst I-gen voice,nom hear-passive,past-3sg,neut  
My voice was heard by Chandra.
- (31) ravi-yinda uttara-gaLu      gottaag-alpaTT-ive.  
Ravi-instr answer-pl,nom learn-passive,past-3pl,neut  
The answers were learned by Ravi.
- (32) gurugaL-inda pustaka-gaLu      beekaag-alpaTT-avu.  
teacher-instr book-plur,nom need-passive,past-3pl,neut  
The books are needed by the teacher.
- (33) eradu kivi-gaLu aval-inda      ir-alpaTT-ive.  
two ear-pl,nom she-instr be-passive,past-3pl,neut  
Two ears are had by her. (*literally*)

The passive versions of (26) to (29) with the initial subject in the dative case are given in (34) to (37).

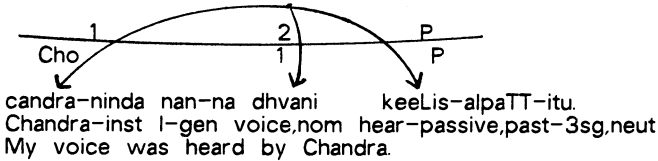
- (34) candra-nige nan-na dhvani      keelis-alpaTT-itu.  
Chandra-dat I-gen voice,nom hear-passive,past-3sg,neut  
My voice was heard by Chandra.
- (35) ravi-ge uttara-gaLu      gottaag-alpaTT-avu.  
Ravi-dat answer-pl,nom learn-passive,past-3pl,neut  
The answers were learned by Ravi.
- (36) gurugaL-ige pustaka-gaLu      beekaag-alpaTT-ive.  
teacher-dat book-plur,nom need-passive,past-3pl,neut  
The books are needed by the teacher.
- (37) eradu kivi-gaLu aval-ige      ir-alpaTT-ive  
two ear-pl,nom she-dat be-passive,past-3pl,neut  
Two ears are had by her. (*literally*)

These examples are important in two ways. First, the version with the initial subject in the instrumental case provides additional evidence for the subjecthood of dative subjects. More specifically, it provides evidence that these nominals are *initial* subjects, since otherwise only initial subjects can occur in the instrumental case in passive clauses. Second, since the nominative nominal in passive clauses is otherwise always a direct object which has advanced to subject, these examples provide convincing evidence that the nominative nominal in the dative subject construction is a direct object at some level, and hence strong evidence for the inversion analysis of dative subject clauses in Kannada.

In the remainder of this paper, I will focus on two questions about these passive clauses. First, what is the relational structure of these clauses? Second, what are the syntactic properties of the nominals in these clauses?

Consider first how these two kinds of passive clauses might be analysed. In the passive version in (30), the initial subject occurs in the instrumental case, the normal case for subject chomeurs in passive clauses. Such clauses are most naturally analysed as not involving Inversion at all; they simply involve Passive and thus have the relational structure in (38).

(38) Relational structure of (30):



Such examples show that Inversion is not obligatory for the verbs that govern it. Rather, most of the verbs that govern Inversion exhibit a constraint that the initial subject not be the final subject (or perhaps that the initial direct object be the final subject). This constraint is satisfied by either Inversion or Passive.

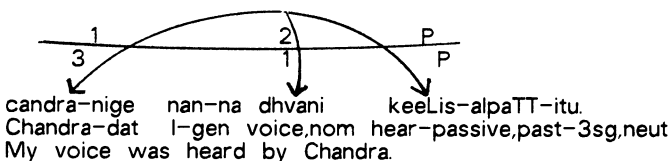
Some verbs are not governed by this constraint. For example, *tiliyu* 'learn' can occur in any of the forms in (39) to (42).

- (39) ravi uttara-gaL-annu tiliy-utt-aane.  
Ravi,nom answer-pl-acc learn-fut-3sg,masc  
Ravi will learn the answers.
- (40) ravi-ge uttara-gaLu tiliy-utt-ave.  
Ravi-dat answer-pl,nom learn-fut-3pl,neut  
Ravi will learn the answers.
- (41) uttara-gaLu ravi-yinda tiliy-alpaD-utt-ave.  
answer-pl,nom Ravi-instr learn-passive-fut-3pl,neut  
The answers will be learned by Ravi.
- (42) uttara-gaLu ravi-ge tiliy-alpaD-utt-ave.  
answer-pl,nom Ravi-dat learn-passive-fut-3pl,neut  
The answers will be learned by Ravi.

(39) is the active (monostratal) version; (40) involves Inversion; (41) and (42) are the passive versions of (39) and (40) respectively.

Clauses like (34), in which the verb is passive and in which the initial subject occurs in the dative case, apparently involve both Inversion and Passive. Such clauses might be analysed as in (43).

(43) Relational structure of (34):



Johnson and Postal (1980) propose an analogous analysis for similar clauses in Sinhalese. Although this analysis violates the Chomeur Condition of Perlmutter and Postal (1977), Johnson and Postal's arguments are applicable here. Employing a two-level analysis (as in (43)) for (34), but a three-level analysis for (26), provides an account of the presence of passive morphology in (34) but the lack of passive morphology in (26): only in (34) is there a nominal which is accusative (a transitive direct object) on one level and a subject on the succeeding level. Thus

this analysis accounts for both the dative case marking on the initial subject and the passive morphology. <sup>6</sup> Further arguments for analysing these two kinds of passive clauses as suggested here are provided by an examination of the properties of the nominals in these clauses.

Consider first basic passive clauses, i.e. ones corresponding to clauses not involving Inversion, like (44). <sup>7</sup>

- (44) ravi-yinda naanu nooD-alpaTT-e.  
Ravi-instr I,nom see-passive-past,1sg  
I was seen by Ravi.

The nominative nominal in such passive clauses behaves as subject with respect to various rules. It controls Reflexivization, as in (45).

- (45) candra tan-na taayi-yinda nooD-alpaTT-a.  
Chandra,nom refl-gen mother-instr see-passive,past-3sg,masc  
Chandra was seen by his mother.

It can be a Equi victim, as in (46).

- (46) candra [Ø ravi-yinda nooD-alpaD-alu] iShTapaD-uvud-illa.  
Chandra,nom Ø Ravi-instr see-passive-inf want-pres-not  
Chandra doesn't want to be seen by Ravi.

And it can a victim of Participial Equi, as in (47). <sup>8</sup>

- (47) [Ø maaya-Linda nooD-alpaTT-u] candra hood-a.  
Ø Maya-instr see-passive-ptcpl Chandra,nom go,past-3sg,masc  
Having been seen by Maya, Chandra left.

Conversely, the instrumental nominal in passive clauses lacks these various subject properties. This is illustrated for Reflexivization, Equi, and Participial Equi in (48), (49), and (50) respectively.

- (48) \*naanu ravi-yinda tan-na mane-yalli nooD-alpaTT-e.  
I,nom Ravi-instr refl-gen house-in see-passive-past,1sg  
I was seen by Ravi in his house.  
(49) \*nanage [ravi Ø nooD-alpaD-alu] aase.  
I,dat Ravi,nom Ø see-passive-inf want  
I want Ravi to be seen by Ø (=me).  
(50) \*[maaya Ø nooD-alpaTT-u] candra hood-a.  
Maya,nom Ø see-passive-ptcpl Chandra,nom go-past,1sg  
Maya having been seen by him, Chandra left.

How then do the nominals in the passive clauses corresponding to inversion clauses behave with respect to the various subject properties? Regardless of whether the initial subject is in the instrumental case or the dative case, the nominative nominal behaves as subject with respect to both various rules. It occurs in the nominative case and controls verb agreement, as in (30) to (37) above. That it behaves as subject with respect to various syntactic rules is illustrated for Reflexivization in (51), for Equi in (52), and for Participial Equi in (53).

- (51) ravi tan-na taayi-yinda / taayi-ge  
Ravi,nom refl-gen mother-instr / mother-dat  
beekaag-alpaTT-idd-aane.  
need-passive-pres-3sg,masc  
Ravi is needed by his (=Ravi's) mother.

- (52) ravi [0 aaSa-Lige keeLis-alpaD-alu] prayatnis-id-a.  
 Ravi,nom 0 Asha-dat hear-passive-inf try-past-3sg,masc  
 Ravi tried to be heard by Asha.
- (53) [0 aaSa-Linda keeLis-alpaTT-u] ravi hood-a.  
 0 Asha-instr hear-passive-ptcpl Ravi,nom go-past,3sg  
 Having been heard by Asha, Ravi left.

The instrumental nominal in these passive clauses behaves like the instrumental nominal in regular passive clauses (i.e. those passive clauses corresponding to active clauses that do not involve a dative subject). This is illustrated for Reflexivization in (54), for Equi in (55) and for Participial Equi in (56).

- (54) \*ravi-yinda tan-na taayi-ya dhvani keeLis-alpaTT-itu.  
 Ravi-instr refl-gen mother-gen voice,nom hear-passive-3sg,neut  
 His (=Ravi's) mother's voice was heard by Ravi.
- (55) \*nanage [ravi 0 keeLis-alpaD-alu] aase.  
 I,dat Ravi,nom 0 hear-passive-inf want  
 I want Ravi to be heard by 0 (=me).
- (56) \*[maaya 0 keeLis-alpaTT-u] candra hood-a.  
 Maya,nom 0 hear-passive-ptcpl Chandra,nom go-past-3sg,masc  
 Maya having been heard by him, Chandra left.

In short, passive clauses with the initial subject in the instrumental case corresponding to active inversion clauses behave like regular passive clauses, in that the nominative nominal behaves as subject with respect to various rules, while the instrumental nominal does not. This provides support for analysing such passive clauses like regular passive clauses, as in (38) above.

When the initial subject in passive clauses appears in the dative case, however, it does behave as subject at least with respect to controlling Reflexivization, as in (57).

- (57) ravi-ge tan-na taayi-ya dhvani keeLis-alpaTT-itu.  
 Ravi-dat refl-gen mother-gen voice,nom hear-passive-3sg,neut  
 His (=Ravi's) mother's voice was heard by (*literally* to) Ravi.

Compare (57) to the ungrammatical (54), with *ravi* in the instrumental case instead of the dative case. The contrast between (57) and (54) shows that the difference between the two kinds of passive clauses, one with the initial subject in the dative case, the other with the initial subject in the instrumental case, differ, not only in the case marking of the initial subject, but also in terms of the syntactic properties of the initial subject. This provides support for providing distinct syntactic analyses for the two kinds of clauses, as proposed here.

The dative nominal in such passive clauses does not seem, however, to behave as subject with respect to other rules. In particular, it cannot be a victim of either Equi or Participial Equi, as illustrated by (55) and (56) above.

In summary, the nominative nominal in passive clauses which correspond to inversion clauses always behaves as subject. The initial subject in such clauses never behaves as subject if it is in the instrumental case; it does, at least with respect to Reflexivization, if it is in the dative case.

Passive inversion clauses are significant in that the case marking is the same as in the corresponding active inversion clauses, but the distribution of syntactic properties is different. Thus, in both (26) and (34), repeated below, the initial subject occurs in the dative case while the initial direct object occurs in the nominative case.

- (26) candra-nige nan-na dhvani keelis-id-e.  
Chandra-dat I-poss voice,nom hear-past-1sg  
Chandra heard my voice.
- (34) candra-nige nan-na dhvani keelis-alpaTT-itu.  
Chandra-dat I-gen voice,nom hear-passive,past-3sg,neut  
My voice was heard by Chandra.

(26) and (34) differ, however, in at least two ways. First, the nominative nominal can be an Equi victim in (34) but not in (26). Second, the dative nominal can be a victim of Participial Equi in (26) but not in (34). In general, more rules treat the nominative nominal as subject in (34) than in (26), while more rules treat the dative nominal as subject in (26) than in (34). This difference in the distribution of syntactic properties despite the identity in case marking between the two sentences adds to the evidence that case marking is not a reliable guide to syntactic function.

I proposed above that, while active inversion clauses involve three levels, as in (5), passive inversion clauses involve only two levels, as in (43). From a morphological point of view, these two clauses differ only in that the verb in (43) is passive. As noted above, the proposed analysis would account for this difference, since only in (5) is there an accusative nominal (a transitive direct object) at one level which is a subject at the next level. There are various other facts which the proposed difference would also account for.

There are a number of instances in which certain rules treat neither nominal in inversion clauses as subject. Although the nominative nominal frequently controls verb agreement, as in (1) to (3), there are two types of inversion clauses in which it fails to control verb agreement. The first type involves a verb not inflected for agreement at all, as in (58) to (60).

- (58) nan-age niinu gottu.  
I-dat you,nom know  
I know you.
- (59) ravi-ge avalu. iShTa.  
Ravi-dat she,nom fond  
Ravi is fond of her.
- (60) avan-ige ii pustaka beeku.  
he-dat this book,nom want  
He wants/needs this book.

The second type involves a verb bearing third singular neuter agreement, despite the fact that the nominative nominal is not third singular neuter, as in (61) and (62).<sup>9</sup>

- (61) ravi-ge avalu beek-ittu.  
Ravi-dat she,nom need-past,3sg,neut  
Ravi needed her.
- (62) nan-age avanu gott-ittu.  
I-dat he,nom know-past,3sg,neut  
I knew him.

The failure of the nominative nominal to control agreement in these clauses can be interpreted as indicating that the rule of verb agreement is sometimes sensitive to levels other than the final level. In such clauses the rule is apparently sensitive to the intermediate level at which the dative nominal is a 3 (an indirect object) and the nominative nominal a 2 (a direct object). The verb fails to agree with any nominal since there is no subject at that level.<sup>10</sup> In contrast, in sentences involving both Passive and Inversion, the verb *a/ways* agrees with the nominative nominal, as in (30) to (37) above.

A similar argument can be given, based on Equi. As described above, Equi is generally constrained as follows: A nominal can be an Equi victim if and only if it is a final subject. Inversion clauses not involving Passive provide apparent exceptions to this constraint. In such clauses, neither nominal can be an Equi victim. For example, given an inversion clause like (63), neither nominal can be an Equi victim, as illustrated in (64) and (65).

- (63) candra-nige ravi iShTa.  
Chandra-dat Ravi,nom like  
Chandra likes Ravi.
- (64) \*candra [Ø ravi iShTa-vaag-alu] prayatnis-id-a.  
Chandra,nom Ø Ravi,nom like-become-inf try-past-3sg,masc  
Chandra tried to like Ravi.
- (65) \*ravi [Ø candra-nige iShTa-vaag-alu] prayatnis-id-a.  
Ravi,nom Ø Chandra-dat like-become-inf try-past-3sg,masc  
Ravi tried to be liked by Chandra.

Note that in clauses involving both Passive and Inversion, the nominative nominal can be an Equi victim, as shown in (66) and (67).

- (66) aaSa-Lige ravi keeLis-alpaTT-a.  
Asha-dat Ravi,nom hear-passive,past-3sg,masc  
Ravi was heard by Asha.
- (67) ravi [Ø aaSa-Lige keeLis-alpaD-alu] prayatnis-id-a.  
Ravi,nom Ø Asha-dat hear-passive-inf try-past-3sg,masc  
Ravi tried to be heard by Asha.

The difference in acceptability between (65) and (67) can be accounted for in terms of the intermediate level posited for clauses like (63). For such clauses, Equi is defined on that intermediate level. Since there is no subject at that level, there is no possible Equi victim.

The two arguments just given can be summarized as follows. There are various instances in which a given rule treats neither nominal as subject in active inversion clauses, but there are no instances in which a rule treats neither nominal as subject in passive inversion clauses. The proposed analysis would account for this difference since according to that analysis, active inversion clauses involve a level at which no nominal is subject while passive inversion clauses do not involve such a level. The Kannada data thus provide a new kind of evidence for the intermediate level posited for inversion clauses.

In summary, evidence from passive clauses provides additional evidence for an inversion analysis of dative subject clauses in Kannada. Such clauses provide evidence that the dative nominal is the initial subject and that the nominative nominal is the initial direct object. Kannada also provides evidence that clauses can involve both Passive and Inversion, and that the Chomeur Condition must be weakened somewhat to allow that possibility. In addition, the differences between active inversion clauses and passive inversion clauses provide evidence for the intermediate level postulated for active inversion clauses. Finally, Kannada provides additional evidence for a universal Inversion construction and for multiple syntactic levels.

#### Footnotes

<sup>1</sup> /N/, /T/, /D/, and /L/ are retroflex sounds, /S/ is a voiceless alveopalatal fricative, and /c/ is a voiceless alveopalatal affricate.

<sup>2</sup> 1 is equivalent to *subject*; 2 is equivalent to *direct object*; 3 is equivalent to *indirect object*.

<sup>3</sup> Sridhar refers to this rule as *Coreferential Subject Deletion*. The rule

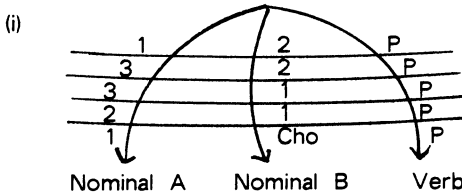
can be informally characterized nonderivationally as a coreference constraint requiring that the null subject of a participle be coreferential with the matrix subject. I will refer to the null subject of the participle as the victim of Participial Equi, and to the coreferential matrix subject as the controller.

<sup>4</sup> Note, however, that the dative nominal can be reflexive when the controller is in a higher clause, as in (i).

- (i) tan-age aaSa iShTa-vendu ravi heel-utt-aane.  
 self-dat Asha,nom like-comp Ravi,nom tell-pres-3sg,masc  
 Ravi says that he likes Asha.

<sup>5</sup> A number of speakers, including Sridhar (personal communication), do not find the passive sentences in (30) to (37) acceptable. Among those that do, there is some variation as to which inversion clauses passivize. Most of the judgments in this paper are those of a single speaker. The source of the variation in judgments is not clear, but even those that judge them acceptable say that such sentences are rarely used. Passive sentences of any sort are generally not used in speech and are uncommon even in the written language.

<sup>6</sup> Perlmutter (1978a) claims that the 1-Advancement Exclusiveness Law predicts that inversion clauses cannot have passives. The possibility excluded by the 1-Advancement Exclusiveness Law is that of the initial subject readvancing to subject, as in (i).



The existence of passive clauses with the initial subject in the dative case demonstrates that inversion clauses can indeed have passives, in the sense that a clause can involve both Passive and Inversion, with the initial direct object as final subject.

<sup>7</sup> It is not clear what is the basic word order in passive clauses. Volunteered passive sentences sometimes have the instrumental nominal first, sometimes the nominative nominal. Both word orders are judged equally natural.

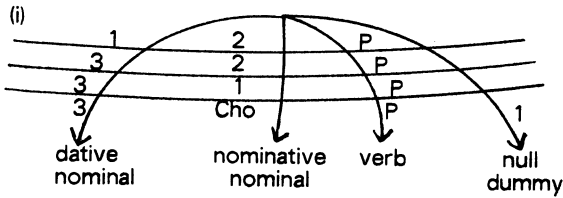
<sup>8</sup> As far as I can determine, however, it cannot *control* Participial Equi, as in (i).

- (i) \*[Ø koThadi-ya voLage bandu] uma ravi-yinda  
 Ø room-gen into come,ptcpl Uma,nom Ravi-instr  
 nooD-alpaTT-aLu.  
 see-passive-past,3sg,fem  
 Having entered the room, Uma was seen by Ravi.

<sup>9</sup> Note that (61) would also be acceptable with the verb agreeing with the nominative nominal, as in (i).

- (i) ravi-ge avaLu beek-iddaLu.  
 Ravi-dat she,nom need-past,3sg,fem  
 Ravi needed her.

<sup>10</sup> An alternative analysis for such sentences would be to posit a null dummy as final subject as in (i).



There are various arguments against this alternative analysis, among them its inability to handle sentences like (ii).

- (ii) tan-na      taayi-ge      soomanu      tumba      iShTa.  
 refl-gen      mother-dat      Soma,nom      much      like  
 His (=Soma's) mother likes Soma very much.

The fact that the nominative nominal *soomanu* controls Reflexivization in (ii) shows that it is the final subject, even though it does not control Verb Agreement. In general, only working subjects (final terms which are subjects at some level) can control Reflexivization.

### References

- Davies, William D. 1981. *Choctaw Clause Structure*. Unpublished University of California at San Diego dissertation.
- Harris, Alice C. 1981. *Georgian Syntax: A Study in Relational Grammar*. Cambridge University Press.
- Johnson, David and Paul Postal. 1980. *Arc Pair Grammar*. Princeton University Press.
- Moravcsik, Edith, and Jessica Wirth, eds. 1980. *Syntax and Semantics, Vol. 13: Current Approaches to Syntax*. New York: Academic Press.
- Perlmutter, David. 1978a. Impersonal passives and the unaccusative hypothesis. In *Proceedings of the Fourth Annual Meeting of the Berkeley Linguistics Society*, pp. 157-189.
- Perlmutter, David. 1978b. Evidence for inversion in Russian, Japanese, and Kannada. Manuscript.
- Perlmutter, David. 1979. Working 1s and inversion in Italian, Japanese, and Quechua. In *Proceedings of the Fifth Annual Meeting of the Berkeley Linguistics Society*, pp. 277-324.
- Perlmutter, David. 1980. Relational grammar. In Moravcsik and Wirth, eds. (1980).
- Perlmutter, David, ed. In press. *Studies in Relational Grammar*.
- Perlmutter, David and Paul Postal. 1974. Linguistics Institute lectures.
- Perlmutter, David and Paul Postal. 1977. Toward a universal characterization of passivization. In *Proceedings of the Third Annual Meeting of the Berkeley Linguistics Society*, pp. 394-417.
- Perlmutter, David and Paul Postal. In press. Some proposed laws of basic clause structure. In Perlmutter (in press).
- Sridhar, S. N. 1976a. Dative subjects. In *Papers from the 12th Regional Meeting of the Chicago Linguistic Society*, pp. 582-593.
- Sridhar, S. N. 1976b. Dative subjects, rule government, and Relational Grammar. *Studies in the Linguistic Sciences* 6:1:130-151.
- Sridhar, S. N. 1976c. The notion of 'subject' in Kannada. In *The Notion of Subject in South Asian Languages*, South Asian Studies, University of Wisconsin Publication #2. Madison.
- Sridhar, S. N. 1979. Dative subjects and the notion of subject. *Lingua* 49: 99-125.

The Past and the Future: Are they coming or going?\*

Suzanne Fleischman

University of California, Berkeley

1. Introduction. In this paper I would like to explore further an issue raised briefly in Fleischman 1982 in connection with the development of go-futures in Romance. It has been observed that in many languages the basic verbs of motion come and go have given rise to tense-aspect markers, go in particular being a frequent source of future-prospectives. Futures have also evolved from the come verb, though apparently fewer, while past-retrospectives have evolved from both come and go, though neither is well represented.

These diachronic developments raise a number of related questions. First, and most basic, what is there in the semantics of come and go that makes these verbs prime candidates for extension into the temporal system?<sup>1</sup> Second, does the come-go opposition tend to operate symmetrically in temporal systems, and if not (as the above statements concerning relative frequency imply), how do we explain the asymmetry? Third, assuming that these spatio-temporal correlations are not arbitrary, how do we account for the predominant association of go with Future? Finally, does the answer to this last question (assuming we find one) involve postulating a (symmetrical or asymmetrical) homology of the type go:Future::come:Past?

It must be acknowledged that the problem of come and go is not being addressed for the first time here (cf. Givón 1973, H. Clark 1973, Fillmore 1975, Traugott 1975, 1978); however it has not generally been broken down into the same component issues nor looked at from the same perspective or with the same goals in mind. And while it is not expected, given the complexity of these issues, that the "solutions" proposed here will close discussion of the matter in any definitive sense, it is hoped that some relevant new light will be shed on the issues through the particular combination of investigative parameters we will be using to explore them.

2. The spatial metaphor for time. One of the most widely accepted tenets of the 'localist hypothesis' is the notion that spatial terms often function as structural templates for the expression of temporal relations (cf. Cassirer 1953, Anderson 1973, Lakoff & Johnson 1980). Cassirer (216f.) goes so far as to say that the languages of primitive peoples have no means other than spatial terms to express the temporal idea. While I will not pursue further Cassirer's implication of differences between the linguistic means of "civilized" and "primitive" cultures for encoding temporal relationships --differences which, moreover, the data on come and go do not bear out--, I will nonetheless assume in this paper the validity of the basic hypothesis that certain domains of the temporal system are predominantly locative in underlying structure.

3. 'Come' and 'go' as tense-aspect markers. In the ordering of events in a discourse, either with respect to the moment of speech (tense) or to each other (sequencing), the motion verbs come and go are frequently pressed into service to express the relationships 'earlier than' and 'later than' or, if these events are anchored to a deictic center, Past and Future.

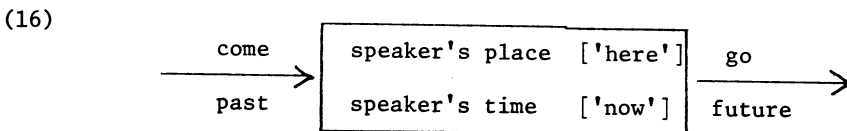
3.1 Go-futures. Givón (1973:918) observes that go seems to give rise primarily to a variety of futures and prospectives. This has occurred in English, most of Western Romance (Portuguese, Spanish, Catalan, Gascon, Occitan,<sup>2</sup> French), Hebrew, varieties of Arabic, Coptic, possibly Sanskrit, Cuna, Central Sierra Miwok, a large number of African languages (Hausa, Bassa, Igbo, Zulu and Tonga (see n.24), Kishamba, and possibly Swahili<sup>3</sup>), and no doubt elsewhere as well. A few examples:

- (1) Eng. I'm going to take care of it tomorrow
- (2) Ptg. Vou ver se posso ajudá-la 'I'll see if I can help her'
- (3) Sp. Te lo prometo, voy a llamar mañana 'I promise you, I'll call tomorrow'
- (4) Cat. Ara anem a veure el segon acte 'now we're going to see the second act' (Badía 1962:I:394n.)<sup>4</sup>
- (5) Oc (Provençal): Vau escriure a mi colègas. Saber de què fan 'I'm going to write to my colleagues, find out what they're doing' (Schlieben-Lange 1971:172)
- (6) Fr. Il va rentrer dans la quinzaine 'He'll be back within two weeks'
- (7) Heb. ani holex laasot et ze maxar 'I'll do it tomorrow (Givón 1973:918)
- (8) Palest. Ar. ana ha jib-lik babur 'I'll give you a train' (ibid.)
- (9) Cuna: an-takke-nae 'I'm going to see' (Holmer 1946:195)
- (10) Igbo: ò gà èrì ñ'rí 'he's going to eat' (Welmers 1973:405)
- (11) Kishamba: sisi na-ku-enda ku-ona yeye 'we will see him' (Givón 1973:918)
- (12) Krio: wi go tray for puš di trak 'we'll try to push the truck' (Givón, ibid.)
- (13) Mauritian creole: to a va malad si to máz sa 'you're going to be sick if you eat that' (Corne 1973:47).<sup>5</sup>

3.2 Come-pasts. If go is mainly a source of futures, come, Givón maintains, seems to give rise chiefly to pasts. As evidence he cites the French recent past construction with venir and the Swahili negative past with ja (which also periphrastically marks future, cf. n.3):

- (14) Il vient de partir 'he (has) just left'
- (15) ha-wa-ja-enda 'they did not go'

3.3 Givón explains this apparent predilection of Future for go and Past for come as a logical consequence of the semantic presuppositions of the two verbs as verbs of spatial motion: come involves motion toward the speaker's place, go motion away from it.<sup>6</sup> (It will be shown below (§8) that this formulation requires further nuancing.) Translating this presuppositional schema from motion-in-space into progress-in-time, Givón sees Past time as moving toward the speaker's time, while the Future moves away from it. The following diagram represents a composite of Givón's diagrams (918) of these relationships:

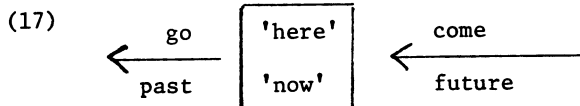


This representation, however, is but one of two alternative, and seemingly equally valid, models for conceptualizing man's relationship to the physical world or to time. These are conventionally referred to as MOVING-EGO and MOVING-WORLD or MOVING-TIME (cf. Benveniste 1965, H. Clark 1973, Fillmore 1975, Traugott 1975, 1978).<sup>7</sup>

4. Moving-ego vs. moving-world. Clark (1973:35) defines these two representational models with respect to the 'canonical encounter,' i.e. man's face-to-face interaction with other humans or frontal confrontation with objects in his field of vision. From this perspective either (a) man is seen as standing still and objects/people come into and depart from his field of vision (MOVING-WORLD), or else (b) objects in the world are seen as stationary and man approaches them (MOVING-EGO).

To translate these models for spatial relationships into models for temporal relations we will invoke the common metaphor of time as a highway consisting of a succession of discrete events (H. Clark 1973). According to the moving-time model man's position remains fixed while the highway of time moves past him from front to back (cf. n.9), the impression one has looking out the window of a moving train. At any given moment FUTURE events are coming events, while PAST events have gone by. As the highway moves, that portion of time that has already gone by is leading, i.e. ahead, while that portion of time that has yet to come follows behind. According to the moving-ego model man travels along the highway. He comes from the PAST and goes toward the FUTURE. Events he has experienced lie behind him, while those he has yet to experience lie ahead of him (cf. H. Clark 1973:50, Fillmore 1975:29).

Givón's analysis of come and go (in 16 above) appears to illustrate the moving-ego model.<sup>8</sup> An analogous interpretation of these verbs from the perspective of moving-time is given in the following diagram:



Notice that both (16) and (17) preserve the presuppositional schema of come and go provisionally formulated in 3.3. But they reverse the spatio-temporal correlations, including the distribution of come and go, as summarized in the table in (18) below. (S marks the locus of the speaker at time 'now', the short arrows the direction of his "positive" space (cf. H Clark 1973), i.e. his front.)

(18a) MOVING-EGO<sup>9</sup>

S →		....
PAST	FUTURE <sup>10</sup>	
come	go	
behind	ahead	
back	front	
after(?)	before(?) <sup>11</sup>	
following	preceding	
ablative	allative	

(18b) MOVING-TIME

S →		....
PAST	FUTURE	
go	come	
ahead	behind	
front	back	
before	after	
preceding	following	
ablative	allative	

5. Moving-time. The data in (1)-(15) all illustrate a moving-ego perspective. On the other hand, moving-time underlies the Vietnamese expressions 'the week ahead' for 'last week' and 'the week behind' for 'next week' (Fillmore 1975:49). Traugott (1974:292) observes similarly a predominance of moving-time (future=behind, past=ahead) in pidgins and creoles.<sup>12</sup> With respect to come and go, the following examples (a small sample of possibilities) all reflect moving-time:

- (19) Eng. in the days to come, in days gone by/bygone days, many years ago; Fr. l'avenir, Sp. el porvenir 'the future', Ger. Vergangenheit 'the past'; Ptg. o que la vai la vai 'what's done is done'<sup>13</sup>

It is clear that languages are not restricted to the use of one model or the other. A given language can use both, even for related expressions:

- (20a) Moving-ego: Fr. dorénavant, Sp. de aquí en adelante 'henceforth' (lit. 'from now/here to ahead') (Future = ahead)  
 (20b) Moving-time: Fr. dans les temps à venir, Sp. en los tiempos venideros 'in time to come' (Future = behind)

or indeed split the perspective of a single sentence, as in:

- (21) I am going to do it come Friday (Traugott 1978:383)

The speaker in (21) is seen as moving toward the future, while Friday, being later than the moment of speech, is seen as moving toward the speaker. A number of tense-aspect markers from come and go exemplify moving time:

5.1 Come-futures. Prospective constructions with come are reported for Sicilian, dialects of Rheto-Romance, Swedish --the possible source of come-futures in Finnish and Kamasin Samoyed (Tauli 1966:81, cited in Traugott 1978), and a range of African languages including Ewe (see n.5), Bassa, Swahili, Zulu and Tonga (see n.24), Akan, Bemba, Efik, Kpelle, Wãpã, LuGanda, etc. (see also n.17). Selected examples:

- (22) Rheto-Rom. vegn(el) fa/ven far 'he will do'  
 (23) Swed. Jag lovar dig att du kommer att få se filmen 'I promise that you will see the film' (Platzack 1978:478)<sup>14</sup>  
 (24) Finn. Minä tulen tekemään sen 'I will do it' (R. Anttila, cited in Givón 1973:918)  
 (25) Akan: òbédìdì (bé < bã 'come') 'he's going to eat'  
 (26) Kpelle: (ká)a pái kèi (< pá 'come') 'he's going to do it'  
 (27) Wãpã: ku ri bi ya 'he's going to go'  
 (28) Efik: ndídep mbòrò 'I'm going to buy bananas' (contrastive future probably < -dí- 'come')  
 (29) LuGanda: àjjá kúgéndá 'he's going to go (sometime)' (indefinite future < jjá 'come')

African examples from Welmers 1973:354-5.

Comments in various grammars suggest that come-futures originate in ingressive, inchoative, even resultative expressions ('start to be', 'get to be', 'come to be') or in sequencing devices for expressing posteriority ('then,' 'later') (Traugott 1978:378).

5.2 Go-pasts. The Gallo-Romance and Catalan region offers the best documented case of a go-past. Once widely attested in French (14th -

17th cc.), Occitan, Gascon, and Catalan, go + infin. with past meaning has survived with any vitality only in Catalan, the Oc dialect of Guardia Piemontese (Calabria), and sporadically in the Bèarn and Languedoc.<sup>15</sup> Examples:

(30) Cat. me'ls vaig trobar discutint acoloradament 'I found them arguing heatedly' (Badía 1962:II:182)

(31) Guardia: a lu ve vejre '(s)he saw him' (Berchem 1973:37)

Elsewhere in this area the construction has developed with a future meaning (see 3.1). Less clear-cut examples of go-pasts are reported for Swahili (see n.3 re kwenda) and Cuna, which exhibits a narrative past with -na (probably < na(a) 'go') + present stem:

(32) takke-na 'he saw (as he went)' (Holmer 1946:192).

Holmer hypothesizes an original meaning 'went about (doing something).'

A not entirely dissimilar explanation is proposed for the Romance go-past, whose function has been compared to that of an historical present.<sup>16</sup> The presence of the auxiliary go may in effect allow for even greater foregrounding of the meaning of the main verb, as in:

(33) ...so I gave it to him. He takes it, and then he goes and SMASHES it to pieces!

It seems clear that a past meaning for the go-construction must have arisen from what was originally a discourse strategy for setting off events within a past-time narrative.

6. At this point in the discussion it will be useful to draw up a balance sheet of our findings. First, it appears that futures far outnumber pasts in selecting a deictic verb of motion, whether come or go. Across language families go seems to be the predominant future strategy, though in African languages our (admittedly limited) sample shows the two verbs to be approximately equal.<sup>17</sup> Our data on pasts are insufficient to indicate a clear preference for one verb over the other. But it is evident that the two equations of the moving-ego homology (go=future, come=past) are not equally weighted. The remainder of our discussion will be an attempt to account for the asymmetry of the homology.<sup>18</sup> Specifically, we will look at come and go from the standpoint of acquisition, markedness, semantic presuppositions, and case relationships, with a view toward elucidating the apparent predominance of go-futures.

7. Acquisition. According to a commonly held view, the relative primacy of concepts or grammatical categories tends to be reflected in the order in which children acquire them, i.e. the earlier something is learned the more basic it is. Clark & Garnica (1974) found that young children grasp the meaning of come earlier than that of go, as they had predicted according to the 'polarity principle': the "positive" term of an opposition --in this case come<sup>19</sup>-- (not to be confused with markedness, discussed in §8, though the values often coincide) will be acquired first. But on the basis of markedness it is expected that go, the unmarked member of the pair (see below), will be learned first. This prediction is borne out by the findings in Tanz 1980 as well as in parallel research on the acquisition of deictic verbs in early child language (cf. Macrae 1976, Richards 1976,

Wales 1979, Freeman, Sinha & Stedmon 1981). Markedness, however, does not correctly predict order of acquisition across all word pairs (Tanz 1980:124).

Given that these two hypotheses concerning order of acquisition, positive precedes negative and unmarked precedes marked (both put forth by H. Clark and E. Clark, and usually compatible), make conflicting predictions with respect to come and go --as appears to be the case with deictic verbs in general (Tanz, 125)--, and furthermore, that the findings of experimental studies are similarly discrepant, it would be risky to draw inferences concerning the relative complexity of come vs. go on the basis of the available acquisition data.<sup>20</sup> For the record, go occurs more often than come in adult speech (Jones & Wepman 1966, cited by Tanz), where frequency is presumably a function of contextual restrictions rather than semantic complexity. This suggests that we look once again, more closely, at the factor of markedness.

8. Markedness and the presuppositions of 'come' and 'go'. The two parameters of speaker-addressee deixis (ego vs. non-ego)<sup>21</sup> and direction of movement (defined in terms of source and goal) intersect to create a situation of asymmetry with respect to come and go. Leaving out of consideration idiomatic usage,<sup>22</sup> come is typically goal-oriented, with the deictic center (the speaker's locus, broadly construed, cf. Fillmore 1972, 1975) serving as goal. Go is either source-oriented or neutral with respect to direction of movement and person deixis. These three situations are illustrated in (34)-(36):

- (34) He came to campus late today (Goal)  
 (35) He went to campus late today (Source)  
 (36) He went from door to door selling encyclopedias (Neutral)

While come presupposes a speaker-oriented goal, go presupposes neither a specified goal nor a specified source, but simply movement away from a deictic center, which may, but need not be associated with the speaker (cf. Fillmore 1975, Chevalier 1978). Go is therefore considered to be the unmarked term of the pair (cf. also E. Clark 1974, Tanz 1980).

9. Ablative and Allative. According to the moving-ego model man comes from the PAST, which is the source or ABLATIVE relationship, and goes toward the FUTURE, which functions as goal or ALLATIVE (Anderson 1973:126, Comrie 1976:106, Coseriu 1976:124, Traugott 1978:176). Thus come as a recent past in French combines with the ablative preposition de, while go-futures in English, Spanish, and Hebrew take the allative preposition 'to' (see the relevant exx. in 3.1).<sup>23</sup> While I am unaware of any universal claims concerning the markedness or polarity of these two case relationships, empirical observation reveals an allative bias. In principle any movement involves a source, a path, and a goal, any one of which could serve as the focus of an utterance. But in practice people tend to talk about goals much more than about sources. From a moving-ego perspective this would perhaps account for the higher frequency of go observed in adult speech. (On the allative bias in early child language, see n.20.)

10. We are now, I believe, in a better position to attempt answers to the remaining questions posed in §1. (The first of these has been dealt with in §4 above.) In §8 it was shown that come and go are not symmetrical as spatial terms. As Traugott (1978:377) points out, this asymmetry is mirrored in tense systems that mobilize these verbs: in such asymmetric systems it is typically the future rather than the past that selects the deictic verb.<sup>24</sup> The data presented here indeed bear this out. Traugott however offers no explanation for why this is so.

Referring to the diagrams in (18), we observe that according to both models the speaker is facing toward the Future, i.e. Future corresponds in both cases to the speaker's positive field. It is therefore perhaps more likely than past to attract the deictic verb. As for why futures tend to select go more often than come, several interrelated factors suggest themselves: First, go, being the unmarked term of the pair, is less subject to contextual restrictions and hence more flexible grammatically. Second, if we apply the polarity principle to case relationships, then according to either model allative comes out positive (man goes toward the future, while future events come toward him).<sup>25</sup> And if it is the case that moving-ego provides the more natural model for encoding tense relationships, then this combination of factors would favor go --the allative term of the moving-ego model (cf. 18a)-- as the preferred deictic verb for futures.

Intuitively moving-ego appears to be the more natural model for tense relationships, which are by definition ego/speaker-oriented, though not necessarily for other temporal relationships (cf. Traugott 1978). The validity of this hypothesis would of course have to be demonstrated on a sounder methodological basis than intuition. According to moving-ego we would also expect pasts to attract come more often than go; however our present data on pasts formed with the deictic verbs is insufficient to confirm or invalidate this prediction. A number of issues thus remain to be explored before settling the matter of whether the tenses are coming or going.

#### Notes

<sup>1</sup>Temporal reference is generally accomplished through a number of grammatical strategies, including tense, which is deictic, aspect, sequencing (ordering of events with respect to each other), and time adverbials. While come and go may play a role in each of these domains, the distribution of the two verbs with respect to Past and Future (or earlier and later, cf. n.9 below) is not the same in all cases (see Traugott 1978). The present inquiry will focus specifically on come and go in the development of tenses. However it should be noted that the forms at issue are likely to have evolved to tenses via an intermediate aspectual stage (see Fleischman forthcoming).

<sup>2</sup>In Occitan (including Gascon) anar + infin. still functions as both a past and a future, a situation once characteristic of a much wider area (see n.15), although most dialects have resolved the ambiguity in one direction or the other. Schlieben-Lange (1971) observes an overall preference for the future meaning.

<sup>3</sup>Traugott (1978:377n) reports conflicting analyses of Swahili -enda 'go': Madan (1903) regards it as a future (beside ja 'come') and Ashton (1947:274) a continuative, while for Welmers (1973:415) kwenda + infin. or base expresses recent past. Such discrepancies in interpretation may not be as surprising as they seem. In the early Romance texts, particularly those known to have been 'performed stories'--a form of discourse in which tense-switching (past-present) and the historical present abound (cf. Wolfson 1979, Schiffrin 1981)-- it is often difficult to decide whether go + infin. should be read as a past or a future (cf. Berchem 1973, Champion 1978 for examples).

<sup>4</sup>The Catalan futurate go-construction (vaig a + infin.) is viewed by purists as a (substandard) Castilianism which has succeeded in becoming generalized in speech (cf. Badía 1962:I:394). Less prescriptive investigators (Berchem 1973) see it as an indigenous phenomenon, with a introduced at a later date (conceivably but not necessarily on the model of Cast. ir a) to distinguish the construction from the go-past (vaig + infin.). In normal speech, however, a tends to be obliterated, leaving context to disambiguate the time-value of the clause. The question of whether past or future was the earlier meaning finds no consensus (see Berchem, 10ff.).

<sup>5</sup>The (a)va prospective particle of French creoles (< Fr. va 'go') has been secondarily linked by some to Ewe (a)va, a future marker reflecting the Bantu root bia- meaning not 'go' but 'come' (Faine 1937).

<sup>6</sup>See Fillmore 1972, 1975 for a more detailed set of appropriateness conditions for use of come and go in English. Not all of these however apply across languages (for a comparative analysis of such conditions in French and Spanish, see Chevalier 1978). In certain languages (not French or English) come is only appropriate for motion toward the locus of the speaker. Thus in Spanish (also Japanese) the reply to "Come here" is not "I'm coming" but "I'm going" (Sp. ya voy), while French allows either possibility (je viens 'I come' or j'y vais, lit. 'I go there'). Notice that Spanish, like English, does not require specification of the goal for go (see §8 below), whereas French does.

<sup>7</sup>Note that Fillmore's moving-world = our moving-ego, both contrastive with moving-time.

<sup>8</sup>To be precise, it blends the two by speaking of time as the mobile parameter, but within a moving-ego model, i.e. where come=past, go= future.

<sup>9</sup>In the movement metaphor for time the front-back axis is set one way or the other depending on whether man is taken as stable, with time passing him by, or whether the 'highway' of time is taken as permanent as man travels along it. For the purpose of graphic representation this front-back axis has been replaced by directional arrows going from left to right for moving-ego and from right to left for moving-time. Man, however, being a "fronted object," always faces to the right, i.e. toward the Future, as indicated in the diagram. In his encounter with time, then, time always goes past man from front

to back (here left to right), whichever parameter is taken to be the mobile one. This "common entailment" leads Lakoff & Johnson (1980:44) to view the two models, moving-time and moving-ego, as simply "sub-cases of the same metaphor." Rather than reveal similarities, however, this conflation serves only to mask certain fundamental differences

<sup>10</sup> Traugott (1975:218) replaces past and future with earlier and later (or +prior and -prior in Traugott 1978) in order to account not only for situations in which reference is directly to the here-and-now of the speaker, but also for situations (supposedly the majority of moving-time expressions) in which reference is to events ordered serially. While granting the usefulness of this decision, in the interest of clarity we shall retain past and future inasmuch as the focus of our discussion is the development of (deictic) tense-aspect markers.

<sup>11</sup> Since the originally spatial terms before and after have now come to be used almost exclusively with temporal meaning, they seem to jar with the basic correlations of the moving-ego model in a way that terms which are still spatial do not. Yet various Celtic languages (Irish, Welsh, Scots Gaelic) see no obstacle in forming perfects with after: 'I am after writing'='I have written' (Comrie 1976).

<sup>12</sup> The salience of go as a future-prospective marker in creoles (cf. exx. 12, 13) runs counter to this view.

<sup>13</sup> Certain of these are erroneously given the reverse interpretation in Fleischman 1982:79.

<sup>14</sup> He adds that come-futures are distinguished from futures formed with skola 'have to' by a feature of 'present relevance.' See Fleischman forthcoming for a parallel interpretation of go-futures.

<sup>15</sup> Among many discussions of the go-past in Romance see Gougenheim 1929, Marquèze-Pouey 1955, Schlieben-Lange 1971, Berchem 1973 (additional references in Fleischman 1982:178). The past meaning is supposedly attested earlier in Occitan than in Catalan (Berchem, 18f.). However many of the Occitan examples cited are temporally ambiguous (cf. n.3), if not still spatial. The question of chronological priority is further skewed insofar as the earliest Occitan texts predate those in Catalan by over a century. Colón and Berchem see a past meaning already in the oldest Catalan documents (late 13th-early 14th cc.), with grammaticalization by the end of the 14th c.

<sup>16</sup> Cf. Colón 1961:163: "Puisque la périphrase va + infinitif s'emploie pour actualiser l'action et la rapprocher de nous, il est parfaitement compréhensible qu'on recoure très souvent au présent historique dont la mission est aussi de présentifier le récit et lui infuser plus de vivacité. Les deux procédés, la périphrase et le présent historique, se compénètrent et unissent leurs forces."

<sup>17</sup> Particularly in Niger-Congo come is acknowledged to be more widespread than go as a future auxiliary (Welmers 1973:354). To the Niger-Congo data in §5.1, add the following future markers from come: Bute, Nupe, and W.Dagari ba, Ndogo bva (Greenberg 1955:19).

<sup>18</sup> The overall asymmetry of Past and Future (or retrospective and

prospective) is peripheral to our discussion. Cf. Benveniste 1965, Anderson 1973, Fleischman 1982, and from a philosophical standpoint, Gale 1968.

<sup>19</sup> According to one formulation of the 'polarity' principle, anything coming into view of, or moving toward the ego (or toward 'now') is "positive"; movement away from the ego, or an object not in (frontal) view is "negative" (Fillmore 1972, H. Clark 1973, Clark & Garnica 1974; cf. also n.25 below). Thus according to the presuppositions of come and go, come is positive and go negative.

<sup>20</sup> Passing comments in the literature on acquisition of deictics suggest that the discrepant results may in large measure reflect difficulties and differences in experimental design. Richards (1976), for example, observed that children performed better on both come and go in production tests than in comprehension tests. Wales (1979: 259f.) argues similarly that the relative priority of come and go is task dependant, though he detects an overall allative bias in young children's speech: "That which moves has direction towards." In Freeman, Sinha & Stedmon (1981) this allative bias is shown to be sensitive to contextual modification, but in only one out of six tests was it effectively neutralized.

<sup>21</sup> Throughout our discussion ego is synonymous with speaker. E. Clark (1974) views speaker-addressee deixis as well as various other forms of deixis as extensions of the basic ego/non-ego contrast.

<sup>22</sup> Discussed in E. Clark 1974. In brief, come is never used to express departure from, nor go entry into, a "normal state," which is associated with the deictic center.

<sup>23</sup> For additional examples of (recent) pasts involving the ablative relationship and of futures involving allative, see Anderson 1973: 28f., 36. The Swedish future with kommer att, albeit a come-future, takes the allative preposition 'to.'

<sup>24</sup> In certain African languages future-prospectives are developed from both come and go, e.g. Tonga NYA/UZI kusika, lit. 'he goes/comes arrive,' Zulu ugi YA/ZA ku tanda, lit. 'I go/come to love' (cited in Anderson 1973:37). Symmetrical systems such as French with a go-future and a come-past are the exception rather than the rule.

<sup>25</sup> In invoking the polarity principle one must tread with caution. As Tanz points out (158f.), a variety of conceptual relationships are involved; moreover, the polarities may be defined on the basis of different, incompatible, even mutually exclusive criteria. As used here (following H. Clark 1973), polarity is defined solely with respect to the speaker's field of vision: positive = within the field of vision, i.e. in front, negative = not within the field of vision, i.e. behind.

\* The present discussion represents an elaboration and a modification of a position argued in Fleischman 1982 in a section (4.3) bearing a title similar to that of this paper. The research was funded by a grant from the John Simon Guggenheim Foundation.

- Traugott, Elizabeth C. 1978. On the expression of spatio-temporal relations in language. In J.H. Greenberg, ed. *Universals of human language*, III:369-400. Stanford: Stanford University Press.
- Ulan, Russell. 1978 (1972). The nature of future tenses. In J.H. Greenberg, ed. *Universals of human language*, III:83-124. Stanford: Stanford University Press.
- Wales, Roger. 1979. Deixis. In P. Fletcher & M. Garman, eds. *Language acquisition*, 241-260. Cambridge: CUP.
- Welmers, William. 1973. *African language structures*. Berkeley: University of California Press.
- Wolfson, Nessa. 1979. The conversational historical present alternation. *Lg.* 55:168-182.