SOME SYNTACTIC PROCESSES IN KIRIBATI

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I. INTRODUCTION

I describe here some major syntactic processes in Kiribati (Gilbertese)
(KIR) and consider their relevance to general syntactic theory and to problems
in the description of the syntax of Oceanic languages. The general theoretical
framework assumed here is a semantically-oriented modification of Chomsky's
so-called 'Standard' theory (Chomsky 1967), one similar to that used in the
present writer's comparative syntactic study of three Amerindian languages
(Jacobs 1975). The data discussed here are drawn from texts and from elicitation
sessions with KIR speakers, both in Hawaii and in Kiribati (formerly Gilbert
Islands). Two brief descriptions exist — Bingham 1861 and Cowell 1954, a
series of grammar lessions and exercises for non-native speakers. Sohn 1973
includes a useful discussion of relativisation in KIR.

II. EQUATIVE AND PREDICATIVE SENTENCES

Sentences in KIR fall into two major classes: equative and predicative.
Equative sentences are verbless sentences in which both the subject and the
predicate phrase are noun phrases. The subject noun phrase typically expresses
'given' information, information assumed to be familiar already to the addressee
while the predicate noun phrase is the major assertion of the clause. What is
asserted may be a role predication, as in (1) below, or an identity predication
as in (2):

1. Nakaa   (bon)   te tia-moti.
          ASSERTIVE ART *judge*

    Nakaa is/was (a) judge.

2. Te tia-moti arei (bon) Nakaa.
    ART *judge*   *that* ASSERT

    That judge is Nakaa.

Equative sentences have no aspectual marking. We will discuss some apparent
exceptions to this claim later. The optional assertive particle bon introduces
the predicate phrase, the main assertion of the sentence.

The linear ordering **SUBJECT-**(bon)**-PREDICATE PHRASE** of (1) and (2) above seems less common than the ordering (bon)**-PREDICATE PHRASE-SUBJECT**, as in

3.   Bon   tama-u   Nakibwae
      ASSERT *father-my*

      Nakibwae is my father.

With such an ordering the assertive bon is almost never omitted, suggesting that this may be a more marked ordering for equative sentences.

Predicative sentences consist minimally of a subject proform, which appears to be prefixed to the predicate phrase, and the predicate phrase consisting minimally of a main verb. The obligatory occurrence of the subject proform is a major distinguishing criterion for predicative sentences. Equative clauses have no subject proforms. Following the predicate phrase is an optional noun phrase, the referential 'antecedent' of the subject proform. Where the information represented by this noun phrase is quite clear from the context, it is frequently omitted. Of course the obligatory subject proform marks the role of this noun phrase, as in

4.   A-maeka ikai.
      they-live here

      They live here.

although, as mentioned above, the a *they* can be more fully specified:

5.   A-maeka ikai ataei-n-aine   akekei
      they-live here young-of-female those

      Those girls live here.

The predicate phrase may also include negative and aspectual markers, direct and indirect object noun phrases, and prepositional phrases. The KIR equivalents of English predicate adjectives may be considered to be intransitive verbs.

Lyons (1978) has argued that it is valid, even necessary, for the investigator of the grammar of a language to seek to determine how and to what extent the grammatical structure of a sentence determines its meaning regardless of situational factors. These include contextual appropriateness, speech act function, politeness rules, and, more obviously, such performance factors as stammering, slips of the tongue, and even differences arising from minor dialectal and idiolectal variations, and age and sex differences. Such a heuristic may involve delicate decisions by the investigator but it appears essential for effective investigation of the syntax of a language. In the case of KIR, sentences like (4) above are probably more common than sentences like (5) with its noun phrase specification, ataei-n-aine akekei *those girls,* of the subject proform a *they.* But we consider the more fully specified ones more basic to an understanding of the system of the language. The subject proform can be considered a kind of grammatical agreement marker, one which serves as a 'trace' if the noun phrase it stands for is omitted.

For equative sentences we noted earlier an indication that the ordering **SUBJECT-**(bon)**-PREDICATE PHRASE** was the less marked ordering. But unless we identify the subject proform as a noun phrase, the subject of its clause, predicative sentences in KIR seem to be predicate-initial as they actually occur. We assume a framework in which there is a linearly unordered semantic deep structure with hierarchical structuring to capture semantic scope relations. At some fairly deep level, linearisation occurs according to

language-specific restrictions and the informational status of the content.
For the predicative sentence (6):

6. E-na   rauna te umwa   te mmwaane
    he-IRREALIS *thatch* ART *house* ART   *man*

    The man will thatch the roof.

we posit an earlier state of the derivation which can, with details omitted
that are nor immediately relevant, be shown thus:

7.
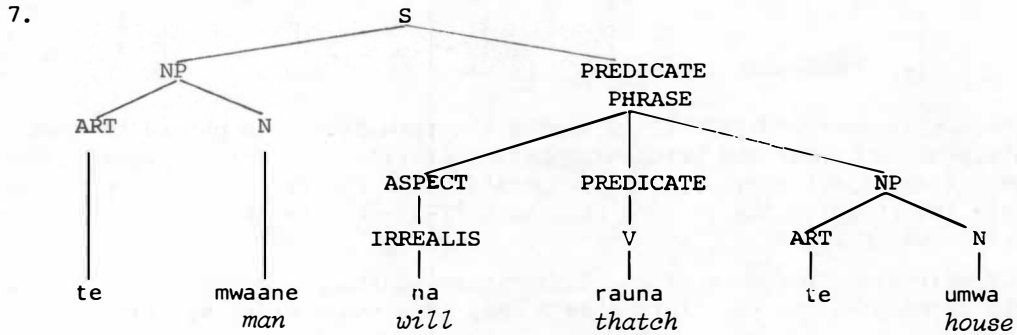
with a yet earlier stage marking topic-comment structure,[1] much as in the so-
called topicalised forms:

8. Te mmwaane, e-na rauna te umwa.

    As for the man, he'll thatch the house.

9. Te umwa , e-na   rauna   te mmwaane
    ART *house*, *he-will* *thatch-it* ART   *man*

    As for the house, the man will thatch it.

10. Te umwa, e-na   rauna-aki   iroun te mmwaane.
    *house it-will thatch-*PASSIVE *by*   ART   *man*

    As for the house, it will be thatched by the man.

A structure like (7) for sentence (6) suggests that some sort of agreement
phenomenon produces the subject copy, especially since other nuclear Micronesian
(MC) languages have surface structures corresponding either to (7) or to (7)
with a subject proform at the beginning of the verb phrase, e.g.

11. Ohl-o   mwemeitla Ruk
    man-that *visit*   *Truk*

    That man visited Truk.

                                                    (Ponapean)
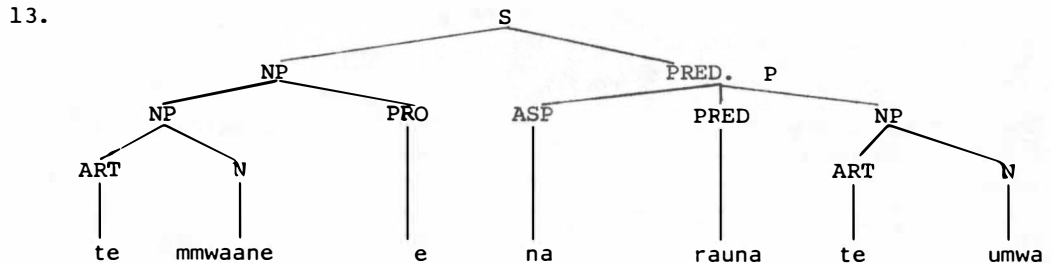
12. Mwal-la   e-pwe la
    man-that he-will go

    That man will go.

                                                    (Saipan Carolinian)

Moreover, a fairly similar marking phenomenon has an object suffix attached to
the verb if the object does not immediately follow the verb and is animate.
Full noun phrases seem to determine affix proforms rather than vice-versa.

To convert (7) into sentence (6), then, a SUBJECT COPYING rules adds a pronominal copy, possibly by Chomsky-adjunction as in (13):

13.

```
                               S
              _____|_____
             NP                              PRED. P
        _____|_____              _____|_____
       NP         PRO          ASP          PRED          NP
    ___|___        |            |            |          ___|___
  ART      N       |            |            |        ART      N
   |       |       |            |            |         |       |
   te   mmwaane    e           na          rauna      te     umwa
```

and then obligatory EXTRAPOSITION shifts the specified noun phrase *te mmwaane* to the position after the predicate phrase, leaving the subject proform (henceforward the subject copy) in initial position. A fairly late morphophonemic process incorporates the subject copy as a prefix to the first constituent of the predicate phrase.

Predicative sentences, then, differ from equational sentences in having a verb as head of the predicate phrase and, in surface ordering, having

14.   COPY$_i$ - PREDICATE PHRASE (NP$_i$)

(where subscript i marks assumed coreference) while equatives have two common orderings:

15.   NP - PREDICATE PHRASE

or

16.   PREDICATE PHRASE - NP

A further difference is that equative sentences allow no aspectual marker:

17. *Nakaa   na   te tia-moti
        IRREALIS ART *judge*

   Nakaa will be the judge.

18. *Nakaa   a   te tia-moti
        REALIS ART   *judge*

   Nakaa is/was the judge.

However the subject may be one of the set of independent (or 'emphatic') pronouns:

19.   Bon   te   tia-moti ngaia
    ASSERT ART *judge*   *he*

   He is the judge.

20.   Ngaira bon   taani-moti
       we   ASSERT *judges*

   We are the judges.

More common still are sentences in which these pronouns are predicate noun phrases.

21.   Boni ngaia te tia-moti
      ASSERT *he* ART *judge*

      It's HIM that's the judge.

22.   Boni ngaira taani-moti
      ASSERT *we* *judges*

      WE are the judges.

A final difference is that predicative sentences are negated with aki:

23.   E-<u>aki</u> atai-a
      he *not* *know-him*

      He doesn't know him.

while equative sentence have tiaki:

24.   <u>Tiaki</u> te tia-moti Nakaa
       not ART *judge*

      Nakaa is not the judge.

III. TOPICALISATION AND ASSERTIONAL STATUS

In the previous section EXTRAPOSITION was described as an obligatory transformation. Sentences like (6), repeated here as (25), represent the usual constituent ordering for predicative sentences:

25.   E-na   rauna te umwa te mnwaame.
      he-IRREALIS *thatch* ART *house* ART *man*

      The man will thatch the house.

But there also exist sentences in which a full noun phrase subject has apparently not been extraposed — as in (8), repeated here as (26):

26.   Te mmwaane, e-na   rauna te umwa
      ART   *man*   *he*-IRREALIS *thatch* ART *house*

      As for the man, he'll thatch the house.

But here an intonational break, shown above with a comma, indicates that te mmwaane is not an ordinary subject noun phrase but the topic noun phrase.

It might seem reasonable to generate both (25) and (26) from a single underlying structure, say (7) above. After all, the two sentences are cognitively synonymous in the sense that the same truth conditions hold for both. After SUBJECT COPYING, an optional TOPICALISATION rule could apply, raising a noun phrase (not necessarily the subject) into topic position. Finally, if the subject is not topicalised, the EXTRAPOSITION rule must apply.

But such a solution seems unsatisfactory since it implies that (25) and (26) are exact paraphrases. Like their English translations, (25) and (26) can be almost exact paraphrases. But the environments in which (26) may be uttered felicitously are a special subset of those for (25), which is not atypical of forms elicited as isolated sentences. In fact (26) is part of a longer discourse, a small segment of which is given below as (27). Here the boy Toaa is talking to his older sister, Nei Ribwa, after a storm had destroyed their house:

27. <u>Toaa</u>: Ao taraia bwa   iai   Nakibwae ao Bwatuku —
     And look! that there's Nakib'ae and Bwatuku —

     ao te mmwaane! I-aki atai-a.   Bukin teraa bwa   a-roko ikai
     and a   man!   I-not know-him.   Why   that they-come here?

     <u>Nei Ribwa</u>: Nakibwae ao Bwatuku,   a-roko ni ibuobuoki —
                          and   *they-come to   help*

     ni urakinii kaai aika kaina. <u>Te mmwaane, e-na</u>
     to bring wood which pandanus. <u>*The man,   he-will*</u>

     <u>rauna te umwa.</u>
     <u>*thatch the house.*</u>

Sentence (26) is spoken after the man in question has already been referred to.
In an interesting sense, the topicalised noun phrase functions in the discourse
much as a relative pronoun might function in a single sentence. Both relate a
proposition to a previously mentioned referential noun phrase. The major infor-
mational difference is that, when (26) is uttered, the clause e na rauna te
umwa, *he will thatch the roof* is still new information — an assertion. A little
later, when the man is gone, Toaa refers to him thus when his mother asks what
has happened:

28. E-a   roko mai te unimmwaane ae e-na   rauna te umwa.
     *He-*REALIS *come here* ART *old-man   that he-*IRREALIS *thatch* ART *house.*

     An old man who's going to thatch the house came here.

The relative pronoun ae reduces the informational prominence of the clause it
introduces, so that the clause is part of a referential noun phrase rather than
the major assertion of the sentence. It must be noted however that the relative
clause here still retains a degree of assertional prominence and communicates
information believed by the speaker to be new to the hearer.

     It is obvious that one major reason that generative grammars have treated
topicalised noun phrases so differently from relativised noun phrases is that
the former present major difficulties in formalisation for a sentence grammar.
A single set of interrelated semantic propositions can take on a variety of
syntactic and morphological forms. The forms are in part determined by supra-
sentential speaker-hearer relations. Assumptions as to the style and content
of a discourse are subject to revision as the discourse is under way. The
participants continually structure and restructure the content. Asserted
('new') information in one sentence becomes, by regular processes, assumed
('given') information later in the same sentence or in a subsequent sentence.
The simple assertion (with a passive verb):

29. Ko-a   tangir-aki irou-u.
     *you-*REALIS *love-*PASV *by-me*

     You are beloved of me.

may in a subsequent sentence be represented as a referential entity, a nominal-
isation:

30.   tangira-m   irou-u
     (the)loving-you   by-me

     my love for you

Nominal structures are typically used to refer rather than assert. Suprasen-
tential discourse factors are the major determinants governing the occurrence
of forms like (30) rather than (29).

The topic noun phrase in (26), te mmwaane, *the man*, is a resumptive element
referring back to something earlier in the discourse or otherwise assumed to be
known to the addressee. In such sentences the subject copy e-, if there is no
other noun phrase in the clause that it refers to, refers back either to the
topic or to some other already familiar entity. In sentences in which a full
noun phrase follows the predicate phrase as its extraposed subject, the e-
refers forward. Where the subject copy refers back to the topic noun phrase,
the relation between the topic and the following predicate phrase is not unlike
that holding between a head noun phrase and its relative clause, which in the
generative tradition is usually shown as (31):

31.
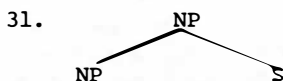
though we have argued for a somewhat different structure in the paper on Trukic
languages elsewhere in this volume. If the corresponding structure for a
topicalised sentence is

32.
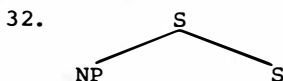
then the fact that the NP S in (31) is dominated by an NP rather than an S, as
in (32), corresponds rather neatly to the difference in informational status
between relative clauses and topicalised sentences.

But both forms represent points along a continuum of assertive prominence.
The topic noun phraase, despite its status as given information, is more promi-
nent than the subject noun phrase in the untopicalised (25). A noun phrase
could, of course, be yet more prominent if it were treated as new information,
i.e. as a predicate.

Indeed it is possible for a noun phrase to constitute an independent
sentence:

33. Te mmwaane.
     ART *man*

     It's a man.

An Englishman, seeing a man with a long white wig strolling towards the Old
Bailey court buildings in London, might remark to a non-British friend:

34. A judge.

But we might prefer to mark the predicative status of the noun phrase more
clearly:

35. It's a judge.

The availability, indeed the preferability, of bon in Gilbertese for (36):

36. (Bon) te mmwaane. E-na rauna te umwa.

     It's a man. He's going to thatch the house.

indicates that te mmwaane is actually a predicate noun phrase here.

Another option determined, in part at least, by discourse function is a sentence in which te mmwaane and e-na rauna te umwa reverse their normal informational roles. The noun phrase te mmwaane, as we have already seen, may serve as predicate phrase. In (37) it is predicated of the clause e-na rauna te umwa.

37.   Bon   te   MMWAANE   are   e-na   rauna   te · umwa.
      ASSERT ART   *man*   *which he*-IRREALIS *thatch* ART *house*

   It's the MAN who's gonna thatch the house.

In KIR, as in Eng., it is possible to have a different version in which the primary sentence stress is on the last word:

38.   Bon te mmwaane are e-na rauna te UMWA.

   It's the man who's gonna thatch the HOUSE.

In (37) the predicate phrase is just te mmwaane, while in (38) the predicate phrase includes everything after bon. We claim that are e na rauna te umwa in (37) is not part of the predicate phrase but rather an extraposed noun phrase which was the underlying subject. So (37) is derived from an underlying structure something like that of (39):

39.   Are e-na rauna te umwa bon te MMWAANE.

   ⁚Who will thatch the house is the MAN.
   The one who will thatch the house is the MAN.

The subject noun phrase in (39) consists of a clause introduced by a relative proform are, i.e. the subject is a relative clause without a noun phrase head. The KIR version is perfectly acceptable although its Eng. counterpart requires a NP head like *the one*. Such headless relative clauses are not uncommon in texts but are a little less frequent in modern spoken KIR. I suspect the discrepancy has resulted from the impact of Eng. Of course in Eng. too such clauses were formerly more common:

40.   Who steales my purse steales trash.

                              Shakespeare, *Othello* III, 3.157.

41.   Whom the gods love die young.

                              Byron, *Don Juan,* 4.12.

Now, if (39) indeed has a relative clause as its subject NP, then (39) consists of two major constituents: a noun phrase subject and a noun phrase serving as predicate. So (39) is an EQUATIONAL SENTENCE relating two noun phrases to each other. And the extraposed version (37) is likewise an equational sentence.

But sentences like (37) present a problem. The predicate phrase is the noun phrase te mmwaane are e na rauna te umwa. But (37) has no overt subject noun phrase. Nor has sentence (42):

42.   (Bon) te tia-moti
      ASSERT ART *judge*

   It/he is the/a judge.

Yet it is clear that the predicate noun phrases are being posited of some entity considered as 'given' and that underlyingly (37) and (42) are equative sentences. Some speakers in fact use a version of (42) with a subject proform:

43.   E -bon   te tia-moti.
       it/he-ASSERT ART   *judge*

       It/he-is the/a judge.

Informants describe sentences like (43) as most often produced by KIR children. But (43) is much less common if the assertive bon is omitted. On the other hand, with an additional aspectual element intervening, many adult speakers accept the sentence:

44.   E-na   bon te tia-moti
       he-IRREALIS ASSERT ART *judge*

       He'll be the judge.

     Subject copies are unacceptable with predicate noun phrases in verbless sentences. But apparently the intervention of elements that normally introduce verbs allows many speakers to 'forget' this restriction. Since -na cannot introduce a predicate noun phrase, the bon is the true culprit causing the speaker to 'forget'.

45.   *E-na   te tia-moti Nakaa
       he-IRREALIS ART *judge*

       Nakaa will be the judge.

However a very similar form is perfectly acceptable:

46.   E-na   tia-moti Nakaa
       he-IRREALIS *judge*

       Nakaa will be the judge

Sentence (46) means that Nakaa will judge, i.e. act as judge, take on the role of judge. Likewise a sentence like (47):

47.   E-na George Washington.

means that someone is going to play the role of George Washington in a theatrical performance. The forms tia-moti and George Washington have become verblike enough in (46) and (47) to forbid the occurrence of the article te. Both (46) and (47) are predicative sentences and therefore have subject copies. This also accounts for the unacceptability of tiaki negation and the acceptability of aki negation:

48.   *E-na tiaki tia-moti.

49.   E-na aki tia-moti

       He won't be the judge.

     These facts might be represented in the grammar by a surface filtering restriction, one which blocks subject copies or aspectuals before noun phrases, with some idiolectal variation where bon intervenes. Or we might avoid such a device by generating subject copies for both predicative and equative sentences and positing a rule deleting the copies before noun phrases. The same idiolectal variation can be incorporated in such a rule. Where an aspectual marker intervenes, predicate noun phrases must be converted into verbs. We might use the term denominal for such ex-NP's. We will, for the purposes of this paper, choose the second alternative and refer to the two transformations needed as SUBJECT COPY DELETION and DENOMINAL FORMATION.

IV. THE UNDERLYING LIKENESS OF EQUATIVES AND PREDICATIVES

The equative/predicative distinction now appears more like a surface distinction arising out of the lexical category status of the head of the predicate phrase. While predicatives have the surface ordering:

50. $COPY_\iota$ — PREDICATE PHRASE — NP_ι

where the NP_ι has been extraposed, equative sentences have been described as allowing two orders:

51.   PREDICATE PHRASE — NP

or

52.   NP — PREDICATE PHRASE

The order (52), which earlier was argued on other grounds to be less marked, may be the basic underlying form, as it may be for predicative sentences. So equative sentences like (53) and (54)
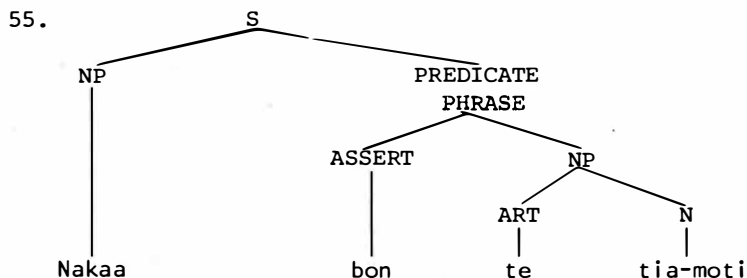
53.   Nakaa bon te tia-moti

Nakaa is the judge.

54.   Bon te tia-moti Nakaa

Nakaa is the judge.

though very, very slightly different in use, share a common underlying configuration we might show as (55):

55.

```
                         S
            _____/  _____
          NP                    PREDICATE
          |                       PHRASE
          |                 ____/      \____
          |              ASSERT            NP
          |                |           ___/  \___
          |                |         ART         N
          |                |          |          |
        Nakaa             bon         te      tia-moti
```

To this, as to all other sentences, SUBJECT COPYING applies, yielding an intermediate

56.   *Nakaa e-bon te tia-moti

Now EXTRAPOSITION can apply, yielding

57.   *E bon te tia-moti Nakaa.

a form like many produced by Kiribati children. But for most adult speakers, whether or not EXTRAPOSITION has applied, COPY DELETION must apply, resulting in (53) or (54) above.

The creation of a subject copy followed by its deletion is not as inelegant as it at first seems, since this deletion applies only to a subset of the cases to which the SUBJECT COPYING rule applies and also allows for the operation of an alternative DENOMINAL FORMATION rule for forms like (46) and (47) above. A more significant question, perhaps, is why EXTRAPOSITION is optional for equatives and obligatory elsewhere. It is noteworthy that where bon occurs in the predicate, extraposition is far more likely. Certainly bon seems to be required in such extraposed forms.

It seems as if, when both subject and predicate are noun phrases, speakers are unclear as to which is the predicate. Hence the wavering over extraposition. This confusion should hardly be surprising since the semantics reinforces it. After all x equals y means also that y equals x. The occurrence of the predicate-marking particle bon clearly identifies the constituent eligible for extraposition, hence the rarity of unextraposed bon sentences. It may be that these rare unextraposed bon forms represent somewhat different discourse assumptions, assumptions which could be represented in a more adequately worked-out version of this framework in terms that could block the application of EXTRAPOSITION.

On this view, then, the distinction between equational sentences and predicative sentences is a fairly superficial one. The surface differences arise from probable processing difficulties caused by the use of the same major category for quite distinct informational functions. In this connection it is interesting to note the existence of strategies like the occasional omission of the article before predicate noun phrases, especially role predicates, in other languages. This creates a possible contrast between subject noun phrases and predicate noun phrases:

58. Jacques est (le/un) professeur.

    Jacques is a teacher.

59. You be (the/a) judge, ffotheringay.

60. *Professeur est Jacques.

61. *Judge was ffotheringay.
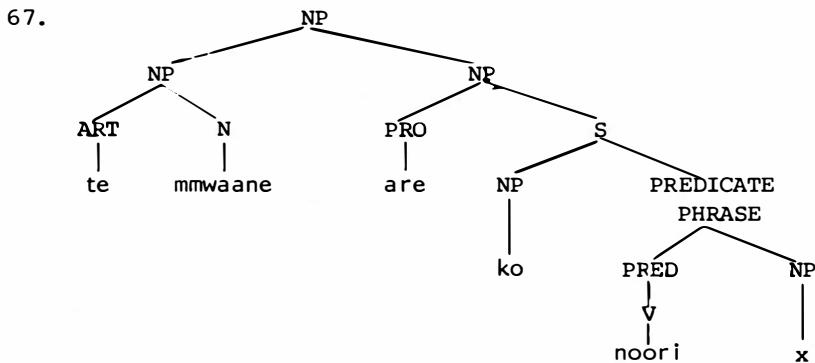
62. *Vice-President was Agnew.

V. RELATIVISATION

We have already discussed data indicating that relative clauses in KIR are noun phrases. At first sight relative clause constructions look much like their Eng. counterparts:

63. te mmwaane are ko-noori-a ngkoananoa
    ART *man   that you-see-him yesterday*

    the man that you saw yesterday

64. te mmwaane are e- ka -mate-aki
    ART *man   that he-CAUSE-die-PASV*

    the man that was killed

65. te   kai-n -tekateka are   ko-tekateka i- ao -na
    ART *stick-of-sit   that you-sit   on-surface-its*

    the chair that you sat on

66. te umwa ane ti-nako iai
    ART *house that we-go   there*

    the house that we went to

Perhaps the most obvious difference is that the relative clause always has a trace proform assumed to be coreferential with the noun phrase head. In (63) the proform is the object suffix, in (64) the subject copy, in (65) the

possessive suffix on the nominal preposition, in (66) the locative pronoun iai.
We assume that the head noun phrase forms a single noun phrase along with the
relative noun phrase:

67.

```
                              NP
                  _____/ _____
                 NP                        NP
              __/  \__               ___/   \___
            ART      N             PRO          S
             |       |              |        __/  \__
            te    mmwaane          are     NP        PREDICATE
                                            |          PHRASE
                                                     __/     \__
                                           ko      PRED        NP
                                                    |           |
                                                    V
                                                    |
                                                  noori         x
```

The relation between the head noun phrase and the relative noun phrase is the
'presupposed' equivalent of the equative relation of (68) and its unextraposed
counterpart (69):

    68.   Bon   te   mmwaane are   ko-noori-a
        ASSERT ART   *man*   *that you-see-him*

        It's the MAN that you saw.

    69.   Are   ko-noori-a bon   te mmwaane.
        that you-saw-him ASSERT ART   *man*

        The one that you saw was the man.

    Such relative noun phrases can be subjects as in (69) above, and objects
as in (70):

    70.   I-a   tia-n   noora are   ko-uoti-a
        I-REALIS COMPLETIVE *see that you-bring-it*

        I have seen what you brought.

    71.   I-a   tia-n   noora ake   ko-uoti-ia
        I-REALIS COMPLETIVE *see those you-bring-them*

        I've seen the things you brought.

    In all these cases the so-called coreferential proform, we claim, is simply
an entity specified, like the one/ones, for number and, in KIR, for certain
other dimensions marked on the introducing proform (are etc.). It is the
construction itself that asserts (in equatives) or presupposes (in relative
constructions) the equative relation referred to as coreference.

    The proforms 'linking' relative sentences to their heads are quite differ-
ent from those in other nuclear MC languages. The actual forms are

    72.   SINGULAR   PLURAL

	SINGULAR	PLURAL
1.	ae	aika
2.	ane	akana
3.	are	ake

These forms express differences in time, location, or discourse perspective
which we need to investigate further. The (1) forms are the here and now forms,

often introducing entities or qualities not referred to before or perhaps
generally true. They are the forms most often used in intransitive adjectival
verbs:

73. te   waa   ae   (e-) uraura
     the boat that (it) red

     The red boat

The parentheses around e- indicate here that the vowel is elided because of the
preceding e. The same elision occurs for the plural a-, *they*. However this
elision occurs only when the proform would be prefixed to the final word in the
clause, normally an intransitive verbal. The forms marked (2) are typically
discourse-oriented, introducing material previously referred to in the discourse,
often by the addressee. Hence there is also a connection with second-person
forms.

     The (3) forms often refer to past time outside the discourse and are the
most common introducers of longer relative clauses.

     Parallel with these proforms are the set of independent demonstratives:

74.   SINGULAR   PLURAL

     1.   aei   *this*   aikai   *these*
     2.   anne   *that (by hearer)* akanne   *those (by hearer)*
     3.   arei   *that*   akekei   *those*

with very similar temporal, locative, and discourse functions. Except for the
(2) forms and some minor morphological processes we cannot go into here, the
suffix -i indicates that no further delimitation of the noun phrase will follow.
Absence of the -i requires the occurrence of a subsequent relative clause
sentence. In this connection it is interesting that if one adds an -i to the
complementiser bwa *that* the resulting form bwai is identical with the word for
thing, fact.

     We will see that the relative proforms also play an interesting role marking
sentences embedded as noun phrase complements.

     These forms also occur in a special type of equative used for the counter-
part of some WH questions in English:

75. Te-raa   ae   ko-a   tia-n   noori-a?
     ART-*what that you*-REALIS COMPLETIVE *see-it*

     What did you see?

76. Antai are e-ka-uka   te   mataroa?
      who that he-CAUSE-*open* ART *door*

     Who opened the door?

77. Ningai ae   e-a   mate?
      when that he-REALIS *die*

     When did he die?

In these sentences the ae/are clauses are given information, the subject noun
phrases. The question word is a predicate noun phrase. We might thus translate
(76) more literally as *Is who, the one that opened the door?*

VI. SOME PROBLEMS CONCERNING COMPLEMENTATION WITH BWA

As mentioned just above, KIR has a complementiser bwa, translated as *that* because it introduces embedded clauses. So, we can replace the object noun phrase te koaua *the truth* in (78):

78.   I ata-a   te   koaua
      I-know-TRANSITIVE ART *true*

      I know the truth.

with a sentential noun phrase:

79.   I-atai-a   bwa ko-na   roko ningabong.
      I-know-it that you-IRREALIS *come tomorrow*

      I know you'll come tomorrow.

But *that* is not always a good translation. For example the question (76) above can be embedded after bwa, as in (80):

80.   E-a   tia-ni   kaoti-a   bwa antai are   e-ka-uka
      he-REALIS COMPLETIVE *point-out-it that who   that he-cause-open*

      te   mataroa
      ART *door*

      He has pointed out who opened the door.

But that could not be used for bwa here. Bwa has also been translated as because, just as Trukic pwe, *that*, often is too, along with the corresponding forms in other MC languages. We will consider this special role later in our discussion. There is one other apparently special role with the verb riki *become, come about, happen*:

81.   E-na   riki bwa te tia-moti
      he-IRREALIS *become that* ART *judge*

      He'll become judge.

The complementiser bwa appears to be followed by a simple noun phrase rather than an embedded sentence. It is possible to specify the subject more fully and the specified form occurs in extraposed position

82.   E-na   riki bwa te tia-moti Nakaa
      he-IRREALIS *become that* ART *judge*

      Nakaa will be the judge.

There is however an alternative analysis which can save our analysis of bwa as always an introducer of embedded sentences. We have seen that te tia-moti can be a predicate noun phrase. Under such an analysis Nakaa is the specified extraposed subject of the embedded sentence:
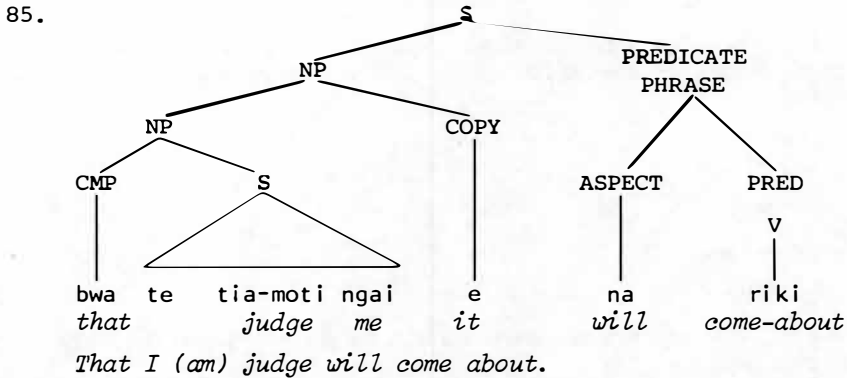
83.   Te tia-moti Nakaa.

      Nakaa is the judge.

So in (82) Nakaa may not have been extraposed from subject position in the higher clause. This will be clearer from the following example:

84.   E-na riki bwa te tia-moti ngai
                                  me

      I will become the judge.

The first-person independent pronoun cannot have come from the higher clause because the subject marker left behind in the higher clause is third-person singular. The forms after bwa clearly constitute an embedded equative sentence. This also accounts for the 'new information' assertive status of te tia-moti.

But what then does the subject copy e- refer to in (84)? Our answer is that riki is more accurately translated as *come about* here and that e- is the predictable third-person copy. It is the trace of an extraposed third-person subject noun phrase, the entire clause bwa te tia-moti ngai. Prior to EXTRA-POSITION but subsequent to SUBJECT COPYING, the constituent structure for (84) would have been (85) below:

85.

```
                              S
                    _____|_____
                   NP                  PREDICATE
              _____|_____               PHRASE
             NP        COPY          _____|_____
          ___|___        |          ASPECT    PRED
         CMP     S       |            |         |
          |     /\       |            |         V
          |    /  \      |            |         |
         bwa te tia-moti ngai   e     na       riki
        that    judge   me      it    will   come-about
```

That I (am) judge will come about.

The fact that there is a paraphrase of (84) with a first-person subject copy in the higher clause indicates that there may be a RAISING much like the Eng. one converting the unextraposed version of

86.   It happened that I was nearby.

into

87.   I happened to be nearby.

A precise formulation of RAISING awaits more detailed investigation. One type of RAISING, that involved here, is not raising in a literal sense. A copy of the lower subject replaces the original third-person subject copy of the higher clause. The bwa clause can remain intact with a possible condition that it not be a subject or object. Raising from lower subject to higher object position applies to structures underlying sentences like (88):

88.   I-tangiri-a   bwa   ko-na   nakomai
      *I-want-it   that you-*IRREALIS *come-here*

      I want you to come here.

to generate

89.   I-tangiri-ko bwa   ko-na   nakomai
      *I-want-you   that you-*IRREALIS *come-here*

      I want you to come here.

We will return to RAISING in our discussion of the verbal auxiliaries in KIR.

It was noted above that bwa clauses, unlike that clauses in English, can remain intact after raising. If this kind of raising is merely a copying rule, such a phenomenon is hardly unexpected. But the condition that it not be a surface subject or object is surprising. Part of the evidence for this claim,

moreover, is shaky. Is it in fact true that extraposed subject noun phrases
cease to be subjects? We cannot be sure at present since there is as yet no
detailed study of subject and object properties in this language, nor of
processes affecting them. What about object complements?

In KIR, many transitive verbs have a special object suffix when a singular
object noun phrase is not specified. This suffix can refer to an animate being
or to a proposition. Thus (90) has three renderings:

90. I-atai-a
    I-know-it/him/her

    I know it/him/her.

provided that the *it* refers to some previously mentioned proposition. If a
singular object noun phrase is specified, then the ordinary transitive thematic
suffix -a occurs:

91. I-ata-a te koaua
    I-know ART truth

    I know the truth.

92. I-ata-a te mwaane

    I know the man.

But when a bwa clause appears in what should be object position, the verb
has the unspecified object suffix:

93. I-atai-a bwa   ko-na   roko ningabong
    *I-know-it that you-*IRREALIS *come tomorrow*

    I know you'll come tomorrow.

The homophony of the two -a suffixes seems synchronically irrelevant, especially
as they occur in different positions on the verb stem. One explanation of the
fact that bwa complements are not treated as objects in surface structure is
that, in fact, they are not surface objects. They may be like deep subject
complements in that they are always extraposed. As in Eng., extraposition from
object is far less obvious than extraposition from subject and this earlier
caused some doubt as to its existence. The evidence for it in KIR seems
stronger.

Bwa followed by an ordinary embedded sentence can never appear in sentence-
initial position, e.g. as topic. Thus while complex topics like the following
are not uncommon in traditional texts:

94. Ao te uea   ae (e-) korakora ae Auriaria, e- karaui nano-ia
    and ART *king that (he) great   that   he- comfort mind-their*

    aomata
    people

    Then the great king Auriaria comforted the hearts of the people.

a bwa clause cannot occur sentence-initially:

95. *Bwa   a-na   maeka ma-ngaiira, e-a   kakukureia-i
    *that-they-*IRREALIS *live with-us   it-*IRREALIS *pleased-me*

    That they would live with us pleased me.

Various syntactic processes serve to prevent initial bwa.[2] The adverbial predicate noun phrase ibuki-n te-raa, *because of what, why,* precedes the extraposed bwa subject in the question:

96. Ibuki-n   te-raa bwa   e-a   ngongo?
     *because-of what   that he-*REALIS *itch*

     Why is he itching?

But the sentence following bwa can remain in initial position provided that it is de-subordinated by lowering the adverbial predicate:

97. E-a   ngongo ibuki-n te-raa
     *he-*REALIS *itch because of what*

     Why is he itching?

Passive structures are also a means of avoiding initial bwa. Thus the passive (98) corresponds to an active sentence with bwa as its subject, but the bwa S is extraposed, as in (99):

98. I-ka-kukurei-aki   bwa   a-na   maeka ma-ngaiira
     *I-*CAUSE-*happy-*PASV *that they-*IRREALIS *live with-us*

     I was pleased that they were going to live with us.

99. E-a   ka-kukurei-a-i bwa   a-na   maeka ma-ngaiira
     *it-*REALIS *cause-happy-me   that they-*IRREALIS *live with-us*

     It made me happy that they lived with us.

The bwa clause, no longer a subject, seems to be an oblique noun phrase bearing no major grammatical relation, much as adverbs. In fact, the clumsy (99) is likely to be phrased more simply as (100):

100. I-a   kukurei bwa a-na   maeka ma-ngaiira
     *I-*REALIS *happy that they-*IRREALIS *live with-us*

     I'm happy that they're going to live with us.

where the 'cause' relation is pragmatically inferrable from the combination of the emotional state and the prospect to which the state is a reaction. This kind of pragmatic relation has led grammarians of several MC languages to describe the bwa counterparts as 'because' conjunctions distinct from the complementiser. The same kind of reasoning would identify that in the Eng. version of (100) as a causal conjunction. Like that clauses in Eng. bwa clauses cannot be preceded by a preposition that would otherwise mark them clearly as oblique noun phrases.

However, bwa complements do occasionally have head noun phrases:

101. Ngkai ti-a   bon ataa te koaua bwa   bon   akea
     *now   we-*REALIS ASSERT *know* ART *truth*   ASSERT *not-exist*

     Nei Nibarara iaon namwakaina.
                  on   moon

     Now we are really sure of the fact that there is no Nei Nibarara on the moon.

though they are frequently extraposed away from their heads:

102.   E-a   boni ka-nako-a naba ana taeka te   nati-ni-uea
        she-REALIS ASSERT *cause-go also her word* ART *daughter-of-king*

        bwa   e-na   katietie-aki iroun te tei-ni-mmwaane arei
        that she-IRREALIS *swing*-PASV *by* ART *boy*   *that*

        *The princess sent the message that she wished to be swung by
        that boy.*

One final phenomenon involving bwa is puzzling at first sight. Bwa is
sometimes followed by are, which we identified earlier as a relative clause
marker. Sometimes the are serves as a head for a referential entity while the
bwa perhaps just marks embedding:

103.   I-a   noora bwa are ko-uoti-a
        I-REALIS *see that that you-bring-it*

        I saw what you brought.

which also involves the non-referential meaning, *I saw that you brought
something*, hence, possibly, the bwa are co-occurrence. But this explanation
will not work for (104) which has no referential entity to be marked with are:

104.   Ti-kakoaua raoi bwa are   a-bon   tia-n   roko
        we-believe firmly that that they-ASSERT COMPLETIVE *come*

        i-namwakaina i-Amerika
        at-moon   Americans

        We are convinved that the Americans have already arrived on the moon.

The bwa are constructions occur in our data where either reference is
intended or where a factive sense seems to reside. If the latter observation
holds, the function of are as marking an assumed or 'given' relationship between
a head noun phrase and its relative has made it eligible to mark presupposed
truth, i.e. fact, for complement sentences.

VI. EQUI DELETION IN KIR

Some verbs which take bwa sentential complements also occur with a different
construction which appears to paraphrase the bwa clauses. For example, in the
sentence

105.   A-bon   aki tangiri-a bwa a-na   kautia te unnaine
        they-ASSERT *not   want-it that they*-IRREALIS *awake* ART *old-woman*

        They didn't want to wake up the old woman.

the subjects of the higher and lower clauses have the same referent. The verb
tangira does not require that this be so, but, when such coreference occurs,
an alternative structure is available as in (106):

106.   A-bon   aki tangiri-a ni kautia te unnaine
        they-ASSERT *not   want-it   awake* ART *old-woman*

        They didn't want to wake up the old woman.

Sentence (106) has ni instead of bwa and what follows ni is not a clause with
subject copy, aspect, and the rest of the predicate phrase but simply the
predicate phrase starting with the verb. Nevertheless, KIR speakers know that

the persons referred to in the higher clause are also the persons involved in the possible waking of the old woman.

We therefore assume that EQUI NOUN PHRASE DELETION can apply to structures like that underlying (105), deleting the coreferential lower subject noun phrase. Such reduced clauses in Eng. may be marked for aspect and voice, though not tense. In KIR, aspectual marking cannot occur in such constructions but passive voice marking on the verb (with -aki) is very common. The EQUI process can apply to intransitive verbs like nako *go*, so that

107.   E-a   nako Ribwa bwa   e-na   kooni taian reemon
        she-REALIS go   *that she-IRREALIS squeeze   some lemons*

        Ribwa went to squeeze some lemons.

can become:

108.   E-a   nako Ribwa <u>ni</u> kooni taian reemon.
        she-REALIS go   <u>to</u> *squeeze   some lemons*

with the same basic meaning.

As in Eng., for verbs like imwanonoa, *force*, which take three noun phrase arguments, the controller for the deletion is not the higher subject but an animate noun phrase object of the higher verb. The shared semantic characteristic of all such EQUI-triggering verbs is that they are all future-oriented — the event represented in their lower S is always future with respect to the time reference of the higher verb. The function of EQUI is to reduce the hierarchical structure by purging the lower clause of constituents whose sense is completely recoverable from the higher clause. This is most obviously the case for verbs which allow only the n/ni[3] construction, i.e. for which EQUI is obligatory. This kind of verb requires the deep subject of its lower sentence to be coreferential with its own subject. This is in contrast to verbs like tangira *want*, noora *see*, nako *go* for which such coreference is optional, and for which EQUI need not apply even if the structural description is met. Verbs like kataia *try*, kona *be able, can*, moana *begin*, tataneia *used to*, which occur only with n(i) seem more like modal auxiliaries, and, for some of them, some process other than EQUI may be involved. We will discuss some of these cases shortly.
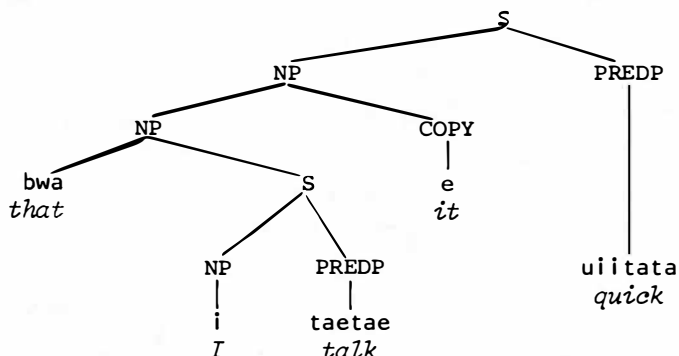
Just as interesting from a cross-linguistic point of view is the fact that some verbs we might expect to allow, if not require, EQUI may perhaps occur only with full bwa complements. These include tuanga *order, tell* and kataua and kariaia *allow*. However this, perhaps understandably, appears to vary among speakers and it requires further study.

According to Cowell, the particle n(i) is really four particles — an infinitive marker also used to form adverbial phrases, a genitive proposition (te umwa n roronga *the house OF young men*), an agent preposition with inanimate agents (e-karaoaki n te atibu *it was done by the rock*), and a locative preposition (n te umwa, *in the house*). We might say instead that the particle appears to be a general linking element and that the interpretations Cowell assigns arise from their syntactic and pragmatic contexts. The particle allows additional non-nuclear noun phrases to be added to clauses and identifies them as 'circumstances'. Likewise it allows the collapsing of an object clause with the higher clause and, especially where the other clause is not a term (subject or object), it reduces the clause to a n VERB structure that can be translated with an English adverb.

VII. A RAISED CONSTRUCTION WITH N(I)

We now examine one such structure in more detail. Assume an original Topic-Comment underlying structure in which the Topic is ngai, *I*, and the major assertion of the Comment is that my speech is rapid. After whatever processes copy the Topic into subject position and then delete it after SUBJECT COPYING, and after bwa has been introduced before the clause complement, we would have a structure corresponding more or less to (109) below:
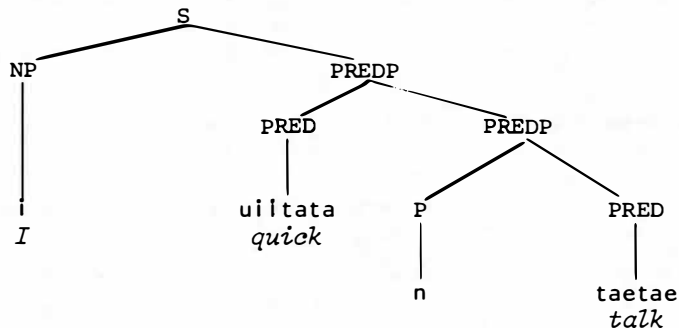
109.

```
                              S
               _____
              NP                         PREDP
        _____                    |
       NP            COPY                   |
   _____          |
  bwa       S          e                 uiitata
  that   _____       it                 quick
        NP   PREDP
         |     |
         i   taetae
         I    talk
```

EXTRAPOSITION can now be applied to shift the bwa clause to the position after the predicate uiitata:

110.   E-uiitata bwa i-taetae
        it-quick   that I-talk

        I speak quickly

Alternatively, before the subject copies have been attached to the predicates,[4] we can instead RAISE the lower subject to higher subject position and shift the predicate phrase, minus any aspect marking, into a n(i) phrase at the end:

111.

```
                        S
             _____
            NP                    PREDP
             |              _____
             |            PRED           PREDP
             i             |          _____
             I          uiitata      P        PRED
                         quick       |          |
                                     n        taetae
                                               talk
```

        I-uiitata n taetae
        I-quick   talk

        I speak quickly

It is also possible to lower the higher predicate into a n(i) adjunct:

112.   I-taetae n uiitata.

        I talk quickly.

The n(i) phrase in (112) is the form sometimes described as adverbial.

VIII. SOME AUXILIARY FORMS IN KIR

We can use the following to represent the order and possible constituents of the pre-verb part of a predicate phrase in a predicative sentence. The formula is not quite correct because the positions of the assertive particle, aspectual marker, and negative are somewhat variable and, in the case of auxiliaries, several may co-occur, each followed by a n(i).

113. COPY-(ASSERT) (ASPECT) (NEG) (AUX n(i))

We are concerned here witn the part we have marked as AUX n(i). KIR has a fair number of these auxiliary forms, all of which seem to express primarily modal or aspectual notions. They include tia, which we have labelled 'completive', bwaane, *be all*, riai *can, trust*, tabe and kume, which are used as a kind of progressive/durative markers, kataia, *try*, kan, *want*, kaan *almost*, toki *stop*, taatanei *used to*, and others.

We want to determine more precisely the nature of the relation between the auxiliary forms and the verbs following. Why do just these forms and none of the others — the copy, assertive and aspect markers, or the negative — require a n(i) to follow them? We have seen that combinations of verbs formed as a result of EQUI are separated by n(i). This is certainly likely to be what happens with kataia *try*, which looks like a verb anyway, with its ka-...-a causative marking.
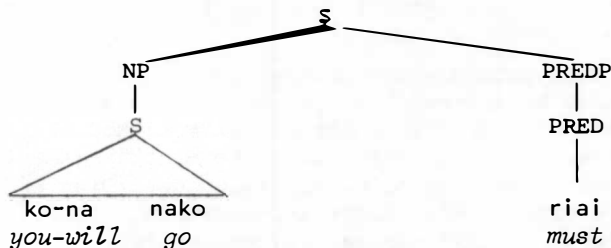
But what of the 'completive' tia, riai *can, must*, and the 'progressive/ durative tabe and kume? If they are verbs, they have no objects in surface structure. Moreover there are some interesting paraphrase relations to account for. Why should (114) and (115) below have almost exactly the same meaning?

114. E-riai bwa ko-na   nako
     *it-must that you-*IRREALIS *go*

115. Ko-riai n nako
     you-must to go

     You must go.

Sentence (114) contains a riai in an environment quite distinct from any suggested by the formula of (113). The form riai has no n(i) following it; nor is a main verb the next major contentive. The bwa sentence complement has obviously been EXTRAPOSED. If this is so, then riai would appear to be a verb which has a sentence complement as subject. A reasonable underlying structure might be (116):

116.


```
                          S
               _____
              NP                      PREDP
              |                         |
              S                        PRED
          ___/__\___                    |
         /          \                  riai
     ko-na         nako                must
   you-will         go
```

Structurally this is just the kind of construction we posited for the uiitata *(quick)* construction earlier. SUBJECT COPYING can apply, followed by EXTRA-POSITION, yielding (114). The bwa complementiser has to be inserted since the clause has retained its integrity as a clause. On the other hand, we could

instead RAISE the subject, ko *you*, of the subject complement sentence into
subject position in the main clause and attach the predicate phrase nako (with-
out its aspectual markers) to the higher predicate phrase by means of n(i).
So riai appears underlyingly to be an intransitive verb. We can check this with
another criterion — is it possible to transitivise riai *must, can* with causative
affixation (ka-...-a for the third person singular)? The form kariaia is indeed
a verb and it means *allow*, a fairly plausible causative for a verb having as
one meaning *can, be able*.

Not all of the forms allow the possibility of EXTRAPOSITION. As with the
English auxiliaries may, can, should, they do not occur in sentence-final
position either. Gundel and Jacobs have claimed this as a general characteristic
of verbs whose primary role is to express modality, since the major assertion
is not in such a verb but in the embedded clause which is its subject noun
phrase; many languages position the most assertive constituents, the newest
information, in sentence-final position. For tia, tabe, and kume, only the
RAISING alternative is available. In fact, these three forms also have
causatives corresponding to them: katiaa *cause to be completed*, katabea *cause
to be busy*, and kakaumea, *bother*, all of which have at least diachronic relation
to the auxiliary verbs. The intransitive verb tia *finished, complete*, is very
common:

117.   E-a   tia   te umwa
        it-REALIS *finish* ART *house*

        The house is finished.

Even if we ignore the connections with causative verbs and intransitives,
it seems economical, in terms of both processes and categories in KIR, to
regard these auxiliary forms as main verbs. We need no special processes to
generate such forms, except perhaps for a crosslinguistic restriction on the
position of non-assertive predicates. And the semantics of these forms seems
more accurately represented in such an analysis.

IX. A FEW CONCLUSIONS

KIR is a very 'verby' language, using verbs where other languages might have
more numerous and specialised categories. It has very few 'genuine' prepositions,
the others being verbs or nominals. Forms translated into Eng. as quantifiers —
all, many etc. are verbs, as are the KIR equivalents of many Eng. adverbs. As
in other Pacific languages, many noun forms can, without modification, be used
as ordinary verbs.

A language with comparatively few categories and many verbs would seem to
be a very hierarchically structured one with many clauses. Presumably such a
language might present problems for memory capacity although its semantics
would be more transparent. Gorbet has pointed to a Hokan (Amerindian) language,
Diegueño, as an extreme example of a 'verby' language. Diegueño makes use of
an elaborate system of case-marking and switch-reference suffixation which
forestalls such problems. In KIR, syntactic complexity is reduced by a few
significant reduction and restructuring processes — EQUI, RAISING, and EXTRA-
POSITION — along with an industrious exploitation of proforms, assertive/
referential contrasts, as in relative and equatives, and by a very productive
morphology. We suspect that the other nuclear MC languages are similar in this
respect.

NOTES

1. It seems likely that such Topic-Comment structuring should be represented in underlying semantic structure along with some kind of marking of the Given-New informational status of the various semantic constituents. Furthermore it may in fact be preferable to posit underlying predicate-initial structuring and thereby avoid having to posit obligatory extraposition for all subjects. Object-marking on predicates is far less regular for plural animate objects and it is possible that the phenomena noted here are in fact synchronic relics of a significant diachronic shift. We are currently exploring these promising possiblities.

2. We have encountered a few cases of sentence-initial bwa but all of them involved a following noun construction buki-n *base of* (literally), the meaning being *because, for the sake of.*

3. The form of the n(i) is phonologically conditioned by the following segment. The particle is ni before labial and velar consonants, including nasals, and before i. Otherwise the form is n.

4. The precise formulation of these processes still requires much investigation. This kind of RAISING appears to require that the raised noun phrase have the same referent as the Topic. It is fairly clear that the SUBJECT COPYING rule will have to apply after RAISING although we have assumed the reverse to keep our exposition fairly simple. Furthermore it may be possible, even desirable, to reformulate this RAISING as a LOWERING rule.

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