Configurationality in the Languages of New Guinea

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This article argues that phrase structure configurations play a more significant role in the organization of the syntax of many Papuan languages than has hitherto been acknowledged. Much of what has been described in the literature as '(free) variation' in the order of constituents (and treated in the same spirit of the analysis of free nominals versus bound pronominals by Jelinek and Demers 1994) can in fact be ascribed to a well-defined set of phrase structure rules that are sensitive to pragmatic as well as syntactic information, such as is well-attested in other languages (see, for instance, Aissen 1992, Kiss 1994). Evidence, from clauses with inherently pragmatically marked nominals and adjunct nominal constructions, is presented to support the phrase-structural analysis. Adopting this analytical tool in turn leads to a structurally-based, rather than functionally-based, account of the switch-reference system in many languages, and insights into the behaviour of NV complex predicates.

1. Phrase structure in Papuan languages

It has been claimed that phrase structure plays little or no role in the grammar of Papuan languages. Foley (1986: 171) discusses the 'dominance of morphology over syntax as the basic organizing parameter of the grammar is true of Papuan languages as a whole', and claims that 'in only a minority of Papuan languages does the word-order of nominals in clauses play a major role in their interpretation' and that 'word order is not generally significant for indicating semantic functions in Papuan

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languages.' (1986: 168).[1] Later, however, Foley (1999), describing Watam, a non-Trans New Guinea language, makes a strong claim for a much more complex phrase structure.

I shall present data from basic clause types in Lani, a highlands (Trans New Guinea) language of Papua (formerly Irian Jaya), Indonesia.[2] Following an account of the basic sentence variation found in that language data from pragmatically marked clause types such as questions will be considered, with a description of the interaction of these sentence types with topic structures. The more complex NV predicates that have been termed 'adjunct nominal' or 'involuntary state' constructions in the Papuanist literature will then be examined to see how well the proposed model manages to account for them, along with a survey in outline of similar phenomena in various other languages (drawing on data from Tauya, Kirikiri, Alamblak, Kanum, Apaḻ, and Koromu), incorporating amendments or additions into the model. Following this, the switch reference phenomenon is shown to be amenable to a discourse-configurational analysis such as is proposed; switch reference systems, often cited as evidence for grammatical relations, are shown to not encode a choice between same and different 'subject' or otherwise, but rather to represent the confluence of two systems, monitoring on the one hand certain argument structure configurations (prominence within a semantic hierarchy, the 'a-subject'), and on the other hand a pragmatic function such similar to 'topic', which is at best loosely grammaticized.

2. Case marking and word order

In many languages of New Guinea there is a complex interaction between case marking and word order, which has been described as being strongly influenced by the animacy of the two arguments. This can be seen in the following four sentences, all intended to have the reading 'He hit the dog'. I shall use examples from Lani (Trans New Guinea, Dani family, Papua; also known as 'Western Dani', related to Lower Grand Valley Dani (Bromley 1981)) to illustrate the main points of the discussion. The patterns shown here are typical for many Trans New Guinea languages, especially languages of the highlands. In the first sentence, we can see that there is one grammatical option with APV word order and no case marking; it is possible to add ergative case marking to this clause, as seen in (2), but this is somewhat infelicitous in normal discourse. The ergative case marker is, however, obligatory when the order of

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[1] The label 'Papuan languages' implies only that the languages are not Austronesian, and that they are found in the vicinity of New Guinea. There are many genetic groups in New Guinea. (estimates range from between 20 to 80 separate entities). The languages discussed here mainly represent the highland Trans New Guinea family (Lani, Tauya, Fore, Apaḻ, Koromu, Telefol), or apparently unrelated languages adjacent to the highlands (Kirikiri, Alamblak). Kanum is not obviously related to the Trans New Guinea family languages.

[2] The patterns described here are also found in many non-Trans New Guinea languages of the area, including those with AVP clause order (such as Torricelli languages). It is also true that not all Trans New Guinea languages instantiate all of these patterns. These morphosyntactic traits are especially common in languages of the highlands, such as Lani.

the two nominals is reversed, as in (3). Lani examples are presented in orthography.[3] The verbal morphology has been indicated in the glosses only in summary, with the indication of the S or A preceding the verb root, which is followed by information about any marked P. In addition to tense and aspect, the verb marks subject by suffix: *-i* '1SG.S/A', *-e* '3SG.S/A', *-a* '3PL.S/A', and the object with prefixes *-nap* '1SG.P', *ino-* '3PL.P'. Further details can be found in Crowther (1999). The analysis here differs significantly from that found in Purba and Budi (1995), or Purba et al (1997).[4]

Lani

(1) *At   nggewo   wakerak.*
    3SG   dog   3SG.S/A:hit:3SG.P
    'He hit the dog.'

(2) # *At   nen   nggewo   wakerak*
      3SG   ERG   dog   3SG.S/A:hit:3SG.P
      'He hit the dog.'

(3) *Nggewo   at   nen   wakerak.*
    dog   3SG   ERG   3SG.S/A:hit:3SG.P
    'He hit the dog.'

(4) * *nggewo   at   wakerak*
     dog   3SG   3SG.S/A:hit:3SG.P

This last sentence is conceivably grammatical, but pragmatically unlikely, with the interpretation 'The dog hit him', but not as 'He hit the dog.' Sentences with this structure and a PAV interpretation are reported as grammatical in Fore (Scott 1978, 1986), though no textual examples are recorded in Scott's works, including Scott (1973) a collection of ± 80 pages of texts. This difference will be discussed in Section 2.1.

These three grammatical alternatives for the sentence share several morphosyntactic features in common: they all have a preverbal A and a preverbal P; this is an absolute

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[3] The phonology of Lani is described in Bromley (1961), and consists of nine consonants, *p t kʷ q m n w l y*, five vowels *i e a o u*, and a high or low pitch-accent which can be realized anywhere on the word (similar to the Kaure system described in Dommel and Dommel [1991] and Donohue [1997]). Examples are presented in Lani orthography.

[4] The following abbreviations have been used extensively in the following discussion: SR, DR: 'same referent' and 'different referent', respectively, in a switch reference system. Following original sources, the labels SS and DS have the same function. The letters A, S and P represent the most agentive argument of a bivalent clause, the single argument of a monovalent clause, and the most patient-like argument in a bivalent clause, respectively (adapted from Comrie 1978). In the glossing of largely portmanteau inflectional forms the abbreviations SG: singular, PL: plural, SUBJ: subject, OBJ: object, OBL: oblique, 1, 2, 3: first, second, and third person, respectively, have been used. Additionally, the following other grammatical abbreviations are found: ABL: ablative, ACC: accusative, ADJN: adjunct nominal, CONJ: conjunct, DAT: dative, DEF: definite, DEM: demonstrative, ERG: ergative, F: feminine, FEM: feminine, FOC: focus, FP: far past, FUT: future, GEN: genitive, HAB: habitual, IND: indicative, IRR: irrealis, LOC: locative, M: masculine, NEG: negative, NFEM: non-feminine, NOM: nominative, PAST: past, PRAG: pragmatic salience, Q: question marker, R.PST: remote past, RES/PURP: resultative/purposive, T.PAST: today's past, TOP: topic; V: verb.

restriction in most Trans New Guinea languages, Lani included; sentences with postverbal arguments such as * *At wakerak nggewo*, * *Nggewo wakerak at*, * *Wakerak at nggewo* and * *Wakerak nggewo at* are all unhesitatingly judged ungrammatical. At best, they represent the broken speech of non-native speakers. Additionally, we can see that ergative case is obligatory when the subject follows the object, and optional when it precedes it. The optionality largely correlates with the relative animacy of the two arguments of the clause: when the subject is higher on the animacy scale than the object, an APV order is unlikely to be found with ergative case, reflecting the greater likelihood of the higher animate argument being coded as topical.

If we reverse the roles of the two participants in the sentences above, and so have a subject with a lower animacy than the object, then we find a situation in which ergative case is quite natural on the subject, even in APV clauses. This is shown with the verb *kege* '(3SG.S/A) see (3SG.P)', and sentences with the intended reading 'The dog saw him.' APV clauses are felicitous, and pragmatically unmarked, with or without ergative case but, again, with PAV order the ergative is obligatory.

Lani

(5) *Nggewo at kege.*
'The dog saw him.'

(6) *Nggewo nen at kege.*
'The dog saw him.'

(7) *At nggewo nen kege.*
'The dog saw him.'

(8) * *At nggewo kege*
(grammatical for 'He saw the dog', but not for 'The dog saw him.')

We can summarize the variation shown in (1)–(8) above in Table 1, which shows the conditions (in terms of word order) under which ergative case is found.

With clauses involving a local participant (first or second person), the presence of verbal agreement that makes clear the person and number licenses even more possibilities:

Lani

(9) *An   nggewo   wakirak.*
1SG   dog   1SG.S/A:hit:3SG.P
'I hit the dog.'

Table 1 Case marking and word order patterns in Lani

	ERG	no case
APV	√	√
PAV	√	*

(10) *An   nen   nggewo wakirak.*
      1SG   ERG   dog   1SG.S/A:hit:3SG.P
      'I hit the dog.'

(11) *Nggewo   an   nen   wakirak.*
      dog   1SG   ERG   1SG.S/A:hit:3SG.P
      'I hit the dog.'

(12) *Nggewo   an   wakirak.*
      dog   1SG   1SG.S/A:hit:3SG.P
      'I hit the dog.'

Sentence (12) cannot be interpreted as 'The dog hit me' since, firstly, *an* is a more topical participant than *nggewo* simply because of its position on the animacy hierarchy, and so is more likely to appear with the ergative, and, secondly, a first person singular object would be registered on the verb with the 1SG.P prefix *no-*. While (12) is grammatical, a less literal translation of 'The dog hit me' into Lani would be *An nggewo nen nokerak*, with a topical 1SG.P, or conceivably *Nggewo nen an nokerak*; crucially, the disparity in animacy between the two arguments will in most contexts call for a coding choice that is different to (12).

We shall be concerned with the cases that show the most restrictions, those involving two non-local participants. In these it is clear that there is no one-to-one correspondence between case marking and word order, nor any one-to-one correspondence between verbal agreement and either case marking or word order. There are three parameters operating, not completely independently but with all connections of a many-to-one nature.

2.1. Accounts of word order, case and agreement in New Guinea

Facts similar to those described here for Lani have been discussed for many languages in New Guinea. Foley, discussing the system in Fore, notes that these patterns provide evidence for "[the] dominance of morphology over syntax as the basic organizing parameter of the grammar" (1986: 171). Foley's set of ranked principles for determining grammatical function assignment in the clause in Fore starts with the differentiation shown by verbal morphology and is as follows (Foley 1986: 173; see also Donohue and Donohue 1997):

(13) 1 verbal morphology; if that fails, then (2)
      2 nominal case marking; if that fails, then (3)
      3 animacy differences; if that fails, then (4)
      4 interpretation convention; first potential actor is actor, if everything else is equal.

Principle (3) above only applies when the animacy differences are fairly great; sentence (8) in the previous section would be grammatical with a first person actor,

following the structure seen in (14), where the verbal agreement signals this actor's reference unambiguously.

Note also that these interpretation conventions are exactly that: interpretative guidelines, and not generative. As the examples at the end of this section show, there are some specific predictions that can be made with a phrase-structural model (such as will be developed below) for which we do not have access with Foley's conventions, but which easily fall out of the model presented here.

On the basis of these facts, we can come up with a simple model for the structures we have seen so far: Lani assigns an ergative case to transitive subjects, but there is an extra-clausal pragmatically prominent position (Yokoyama 1986; Aissen 1992; Holloway King 1995; Choi 1999).[5] Unlike the clause-internal positions which code a particular syntactic role or roles, either subject or object (or, indeed, an adjunct nominal (Section 3) or the stimulus in an involuntary state predicate (Section 5), or another, non-subcategorized-for participant) may appear in this pragmatically salient position.[6] This position is not within the scope of clausally-assigned case marking (see Brown (1997) and Donohue (1999) for a similar account of case marking variation in pragmatic contexts, and Marantz (1984) for such an approach to morphological realizations in general), and so a subject in this phrase-structural position does not receive ergative case. Independent evidence for the extra-clausal nature of this foremost position can be taken from prosodic behaviour: there is often an intonational break between the pragmatically prominent position and the rest of the sentence, and a pause is possible in this position in ways that are not inside the clause. This model would make the following predictions about possible variants of word order and case marking in transitive clauses; ungrammatical false predictions are explained following Table 2.

The forms marked as acceptable in Table 2 (that is, those without an asterisk) are in fact the possibilities that are grammatical. We need to stipulatively declare that all occurrences of non-case marked subjects appear in the extra-clausal position in order to exclude certain possibilities. We find that the second listed arrangement is ungrammatical because of the ban on case marking on arguments in the pragmatic position; the third possibility is ungrammatical because, although the subject appears in the normal subject position, it has not been assigned case; a subject is exempted

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[5] Since there is a large and growing literature on the various notion of 'pragmatic salience', it is not explored here in anything resembling the depth that it requires; for just a small selection of recent functionalist views on the matter, see Lambrecht (1994) and the references therein. I use the term to refer to the supra-syntactic functions of emphasis and constraints on cohesion in discourse that apply, in many languages, to alter the unmarked assignment of case, word order, or indeed grammatical functions to the nominals in a clause. For instance, the selection of the passive in English would be viewed (to simplify) as an over-riding of the typical assignment of agent to subject and patient to object by the desire to code extra salience on the patient. The use of a passive construction then allows the patient to be coded as subject (and usually as a topic as well), at the expense of the agent being marked as an oblique.

[6] This is an analysis suggested at, but not conclusively argued for, by Davies for Kobon (1985: 37).

Table 2 Case marking and word order patterns in Lani

Position:	PRAGMATIC	SUBJECT	OBJECT	VERB
1.	A	–	P	V
2.	* A-erg	–	P	V
3.		* A	P	V
4.		A-ERG	P	V
5.	P	A-ERG	–	V
6.	* P	A	–	V
7.	* P	–	A	V
8.	* P	–	* A-ERG	
9.	* A	P	–	V
10.	* A-ERG	P	–	V

from receiving ergative case only if it is in the extra-clausal position. The sixth option is ungrammatical for the same reason, though in this case the PAV word order makes it clear that the subject cannot be in the extra-clausal position, and so can only be located in the normal subject position, where it must receive ergative case. The variants in 7–10 show strings that would be grammatical if the elements of those strings appeared in different positions.

We can assume a fairly uncontroversial set of phrase structure rules for this model, as is shown informally in (14) (see Aissen (1992), Bresnan (2001), Horvath (1986, 1997) and Kiss (1994) for discussion of the variable placement of arguments of different pragmatic statuses in phrase structure, in different theoretical models). The grammatical functions of the different NPs have been indicated for ease of reading and evaluating the presentation, not to imply that grammatical functions are assigned on the basis of structure. If an argument appears in the pragmatic position, it is not found in its sentence-internal position.[7]

(14) CP → (NP$_{PRAG}$) IP
      IP → (NP$_{SUBJ}$) VP
      VP → (NP$_{OBJ}$) V
      Case principle: assign ERG to an A argument; sister of VP, if verb is transitive

The rather minimalist set of phrase-structure levels has been used in the exposition, not to challenge conventional X' theory, but simply to avoid propagating structural levels where they do not add to the explanatory power of the argument. The relative configuration of the nodes, rather than the number of intermediary nodes, is what is at issue here. These rules generate the phrase-structure diagrams in (15)a–d to model sentences (1)–(3), and predict the ungrammaticality of (4), respectively.

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[7] As with many languages of New Guinea, there is little compelling evidence for the presence of VPs in Lani; the structure in (15)b might just as well be represented with IP → NP$_{SUBJ}$ NP$_{OBJ}$ V. The presence or absence of a VP is not essential to my argument here.

Lani

(15) a.

```
              CP
         ┌────┴────┐
     NP_PRAG       IP
        │       ┌──┴──┐
       at      Ø      VP
      'he'        ┌───┴───┐
               NP_OBJ     V
                  │        │
               nggewo   wakerak
                'dog'    'hit'
```

b.

```
              CP
         ┌────┴────┐
        Ø          IP
               ┌───┴───┐
            NP_SUBJ    VP
               │    ┌───┴───┐
           at nen NP_OBJ    V
            'he'    │        │
                 nggewo   wakerak
                  'dog'    'hit'
```

c.

```
              CP
         ┌────┴────┐
     NP_PRAG       IP
        │       ┌───┴───┐
     nggewo  NP_SUBJ    VP
      'dog'     │     ┌──┴──┐
             at nen  Ø      V
            'he.ERG'         │
                          wakerak
                           'hit'
```

d.

```
            * CP
         ┌────┴────┐
     NP_PRAG       IP
        │       ┌───┴───┐
  nggewo / at  Ø        VP
   dog / he          ┌──┴──┐
                    Ø      V
                           │
                        wakerak
                         'hit'
```
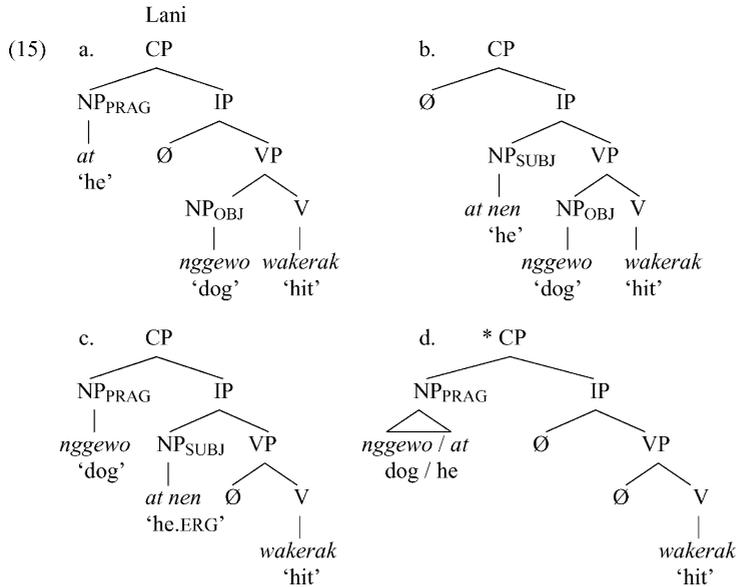
This partly begs the question of the notion of 'transitive' (or, more properly, in the sense that we are using the term here, *bivalent*, meaning a verbal predicate with two core arguments) in the languages in question. For the purposes of this exposition we may define this morphologically: a clause counts as bivalent, for the purposes of the obligatory assignment of ergative case to subject, if the verb is one that allows the object to appear indexed on the verb (see the discussion in Section 2) (the same approach has been applied by Margetts (1999) to the study of transitivity and valence in Saliba). This means that sentences headed by verbs without this morphological parameter may appear in PAV word order configurations without ergative case on the A, as can be seen in (16).

Lani

(16) Mbi   an nengge.
  sweet.potato 1SG SG.S/A:eat
  'I (often) eat *sweet potatoes*.'

The fact that the clause above may also be rendered with ergative case (*Mbi an nen nengge*, *An nen mbi nengge*) implies that there is also a separate position for the subjects of these verbs (and presumably unproblematic verbs as well). This shall not be examined in this paper, because we are only dealing with the prototypically, fully transitive/bivalent clause types.

The same model will also account for languages with an optional nominative case, such as Fore (Donohue & Donohue 1997). Additionally, the high frequency of high-animate subjects (in APV clauses) appearing without ergative (or nominative) case is explained by their increased likelihood of appearing in the pragmatically more salient position: they are more topical (in the sense employed by, e.g. Chafe 1980), and so are

more likely to be coded as pragmatically salient. The fact that APV sentences are more acceptable without case marking when the subject is less animate than the object can be explained by the tendency in discourse of coding less animate arguments in pragmatically less salient positions, thus avoiding the extra-clausal pragmatic position, and leaving the subject as sister of VP, where it receives ergative case.

All this argumentation merely shows that the model with a pre-clausal topic is adequate to describe the data that we have discussed. The functional assumptions of, say, Foley, also serve as an adequate model, and so the fact that the structural model is capable of accounting for the data does not support our consideration of it to be the preferred model. Strong supporting evidence for this phrase structure configuration can, however, be found in the variants of sentences that are found with contrastively focussed animate subjects. Examine the following sentence, to be compared with (1)–(4):
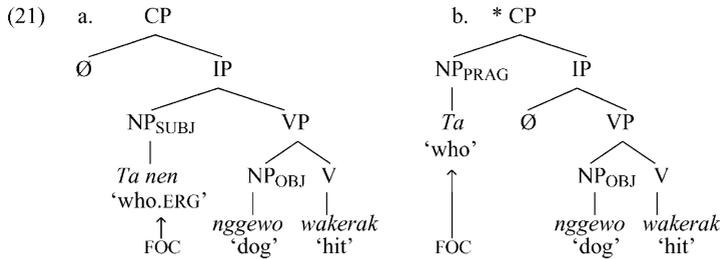
Lani

(17)   * *Ta*   *nggewo*   *wakerak.*
       who   dog   3SG.S/A:hit:3SG.P
       'Who hit the dog?'

(18)   *Ta*   *nen*   *nggewo*   *wakerak.*
       who   ERG   dog   3SG.S/A:hit:3SG.P
       'Who hit the dog?'

(19)   *Nggewo*   *ta*   *nen*   *wakerak.*
       dog   who   ERG   3SG.S/A:hit:3SG.P
       'Who hit the dog.'

(20)   * *Nggewo*   *ta*   *wakerak*
       dog   who   3SG.S/A:hit:3SG.P

Sentence (20) is not ungrammatical because of a violation of word order requirements involving focussed question words; a sentence questioning the P, 'Who did the dog bite?', would code the focussed, questioned P in pre-verbal position: *Nggewo ta eyak wakerak?* (dog who tooth 3SG.S/A:hit:3SG.P) – see section 3 for a discussion of the role of *eyak* in this sentence.

These data can be accounted for in the current model by assuming that the focussed subject element, *ta*, must appear in the sister-of-VP position, where ergative case marking is obligatory. Lexically focussed elements such as *ta* cannot be coded in the apparently topical extra-clausal position: the clash of the two pragmatic roles, topic which is called for by the structural position and focus, lexically stipulated for this word, prevents the appearance in the pre-clausal position, and so we can explain the obligatory use of ergative case in transitive clauses with questioned subjects.[8] The

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[8] Alternatively the ungrammaticality of (17) could be explained by *ta* appearing in the correct, clause-internal, position, but failing to take obligatory case marking. The two analyses have the same predictions, and the same explanatory power, though the purely morphological stipulation of this second account lacks any predictive power. Note, in passing, that while there is good evidence for a clause-external topic position, clause-internally focus seems to be coded *in situ*.

structure of the grammatical sentence in (18) is shown in (21)a, and that of the ungrammatical (17) in (21)b.

(21)   a.   CP   b.   * CP
           Ø   IP   NP_PRAG   IP
      NP_SUBJ   VP   Ta   Ø   VP
       Ta nen   NP_OBJ   V   'who'   NP_OBJ   V
      'who.ERG'   ↑
         ↑   nggewo   wakerak   FOC   nggewo   wakerak
        FOC   'dog'   'hit'   'dog'   'hit'

Other languages mark case not only on the subject NP when it is in its normal position but also have a special case used to mark pragmatically salient arguments. For these languages, we can propose an identical phrase-structure model, except that the principles that assign case are different. This can be illustrated with data from Tauya. Macdonald (1990: 7) states that 'topics in Tauya generally occur clause-initially . . . topics are marked by the topic suffix -ra.' An example of such a topic is shown in (22) (Macdonald 1990: 303). The topic NP is coded with leftmost position in the sentence, and the pragmatic marker -ra (Macdonald glosses this morpheme as TOP, but I shall use prag for reasons that will become apparent) appears marking it.

Tauya
(22) [TOP Fomitiya   yate-a-na   fanu-ra]   wate   yau-ene-ʔa.
           yesterday   go-3SG-GEN   man-PRAG   NEG   see-1/2PL.S/A-IND
      'We didn't see the man who went yesterday.'

Appearing in topic position allows the normal APV word order to be abandoned; the overt marking on the topic NP marks it as potentially not the A of the clause. Furthermore, when an NP is coded in the topic position, it may optionally be copied by a pronoun inside the clause; if the NP is an A, the copy pronoun will take ergative case marking appropriate to its role (Macdonald 1990: 322).

Tauya
(23) ʔe   fanu-ra   ʔe-ni   fenaʔa   yau-a-ʔa.
      DEM   man-PRAG   DEM-ERG   woman   see-3SG.S/A-IND
      'That man, he saw the woman.'

Some objections to the structural analysis presented here have been raised. Foley (1996) observes that

> It is important to note that in many of these languages, with a TOPIC/Domain suffix the position of the NPs marked with it is not restricted to leftmost. . . . This reflects a lack of constituent structure, non-configurationality, so that domain is not identifiable positionally and so marked à la case in non-configurational languages.

I would argue that the instances of non-leftmost 'topics' that Foley identifies are in fact contrastive focus, not topic. The example he quotes is from Macdonald (1990: 321).

Tauya

(24) ʔe   fanu-ni-(*-ra)   fenaʔa-ra   yau-a-ʔa.
    DEM   man-ERG -PRAG   woman-TOP   see-3SG.S/A-IND
    'The man got a wife and …'

Evidence that NPs marked with -*ra* may be interpreted as non-topics at least some of the time comes from examples such as the following, in which the questioned element cannot, by definition of the pragmatic functions, be interpreted as a topic (Macdonald 1990: 168).

Tauya

(25) *Mafo*   *pai-ra*   *na-pi-e.*
    which   pig-PRAG   2SG-GEN-Q
    'Which pig is yours?'

Clearly the marking of discourse functions is not completely iconic with morphological coding in at least some of the languages for which we have information.[9] Assuming that marking with -*ra* in Tauya is not exclusively restricted to marking a pragmatic topic, the most likely interpretation of the -*ra* case marker on *fenaʔa-ra* in (24) is as a marker of focus (preverbal focus positions are not unusual in languages with APV word order), and it would not be unreasonable to suppose that there is an independent morphological constraint disallowing two instances of the same case marker on adjacent constituents (see Mohanan 1994) for just this constraint in Hindi).

In the next section we shall examine some data from complex predicates that will force a change on both the models seen so far.

3. Adjunct nominals: NV complex predicates

In addition to the putative functions 'subject' and 'object' another obligatory nominal is found in some clauses, when the clause is headed by an NV complex predicates. An example of a sentence containing a predicate that consists of a nominal plus an inflected verb can be seen in example (26).

Lani

SUBJECT	OBJECT	COMPLEX	PREDICATE		
(26) *Nggewo*	*nen*	*aap*	*ti*	*eyak*	*wakerak*
dog	ERG	person	that	tooth	3SG.S/A:hit:3SG.P

'The dog bit that man.'

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[9] Pesetsky (1987) suggests that an element of 'discourse-linking' applies to certain Wh-expressions, such as *which* phrases. This reflects the fact that in order for a *which* question to be felicitous, the domain of reference must be given knowledge between the speech act participants. This is not the same thing as topicality, but is certainly an element of topicality. No other examples of question words with -*ra* are to be found in MacDonald's work, leaving this question open. It is clear, though, that -*ra* does not serve as a topic marking in the prototypical sense, with no qualifying statements.

In (26) we can see that, in addition to the 'normal' syntactic relations A ('subject') and P ('object'), an additional nominal is present.[10] It is not an oblique argument; this can be shown firstly by the fact that obliques are marked by case, as in the following examples.[11] (The only exception to the rule of overtly case-marking oblique arguments involves proper names when they are goals of motion verbs. Compare (28) with *At Karubaga negerak* 'He went to Karubaga.' It should be noted that a large number of place names are compounds with *-paga* or *-me* as the second element, such as *karu* 'grassy plateau' (an accurate description of the site) and the case marker *paga*. This suggests that a fossilized case marker is present in these examples as well.)

Lani

(27) *At*   *purom*   *me*   *pagi*   *kege.*
3SG   mountain   OBL   cuscus   3SG.S/A:saw:3SG.P
'He saw a cuscus on the mountain.'

(28) *At*   *purom*   *paga*   *nen*   *wagarak.*
3SG   mountain   ABL   ERG   3SG.S/A:came
'He came from the mountain.'

Obliques may also appear following the verb in pragmatically salient cases (though the normal position is preverbal). In this position the obliques have a somewhat contrastive feel.

Lani

(29) *At*   *pagi*   *kege*   **purom**   **me**.
3SG   cuscus   3SG.S/A:saw:3SG.P   mountain   OBL
'He saw a cuscus, on the mountain.'

(30) *At*   *wagarak*   **purom**   **paga**   **nen**.
3SG   3SG.S/A:came   mountain   ABL   ERG
'He came, from the mountain.'

Appearing postverbally is absolutely not allowed for subjects, objects, or this additional immediately preverbal relation.

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[10] This may in fact be a full NP, or at least an augmented phrasal unit greater than a simple N, as in the following sentence which uses the N+ ('greater than N') constituent 'sharp tooth', to refer to the particular part of the known dog's mouth that affected the patient:

(i) *At*   *nggewo*   *nen*   *aap*   *ti*   [N+ *eyak*   *nggabunik*]   *wakerak*.
3SG   dog   ERG   person   that   tooth   sharp   3SG.S/A:hit:3SG.P
'That dog big that man with that sharp tooth.'

[11] I use the term 'oblique' to cover all non-core arguments, subcategorized for or not (that is, both non-core arguments, and adjuncts). The syntax of the languages in this area usually treats these similarly. Note that source obliques require, in addition to the oblique *paga*, the otherwise ergative/instrumental case marker *nen* as well. This accords with Foley's (1986: 106–108) discussion of the grammaticalization of core case markers.

Lani

(31)	* *Purom*	*me*	*pagi*	*kege*		*at*	*(nen)* (etc.)
	mountain	OBL	cuscus	3SG.S/A:saw:3SG.P		3SG	ERG

(32)	* *At*	*(nen)*	*purom*	*me*		*kege*		*pagi* (etc.)
	3SG	ERG	mountain	OBL		3SG.S/A:saw:3SG.P		cuscus

(33)	* *Nggewo*	*(nen)*	*aap*	*ti*		*wakerak*	*eyak* (etc.)
	dog	ERG	person	that		3SG.S/A:hit:3SG.P	tooth

Although we can show that this new relation is not oblique, neither is it subject nor object, as these are the only core arguments that may appear in the extra-clausal position:

Lani

Extra-clausal subject: grammatical

(34)	*Nggewo*	*aap*	*ti*	*eyak*	*wakerak*
	dog	person	that	tooth	3SG.S/A:hit:3SG.P

Extra-clausal object: grammatical

(35)	*Aap*	*ti*	*nggewo*	*nen*	*eyak*	*wakerak*
	person	that	dog	ERG	tooth	3SG.S/A:hit:3SG.P

Extra-clausal *eyak*: ungrammatical

(36)	* *Eyak*	*nggewo*	*nen*	*aap*	*ti*	*wakerak*
	tooth	dog	ERG	person	that	3SG.S/A:hit:3SG.P

Furthermore, we can note that the function of *eyak* in (26) is to specify the meaning of the rather general verb *wake* 'hit': indeed, *wake* is found with a wide range of uses, both in the perhaps expected (for a language in the New Guinea region) range of 'hit, kill, strike' to the more semantically distant, or abstract, such as 'pick (certain vegetables)', as in *At nggilu wakerak* 'He picked a cucumber.' It can also occur with a number of semantically more specialized uses, all involving an 'adjunct nominal' (following Foley 1986: 117)[12] that behaves morphosyntactically in the same way as does *eyak* in the sentences above. Some examples of the nominals that can be found with *wake*, and the specialized senses that they have when used together, are given in Table 3.

In the light of the fact that the two words show certain combinatorial and also non-combinatorial semantics, and the fact that they cannot be separated in the sentence, yet are phonologically separate words (as judged by pitch-accent assignment, the presences of word-final allophones of consonants, speakers' intuitions, and the appearance of the adjunct nominals outside any verbal inflection), I propose that they can be included in the phrase structural model as a sister to V underneath a V' node

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[12] Ross (1980: 90) calls these constructions 'complement + verb combinations' in his description of Dumo, which is perhaps a better term, given that, from their behaviour, they are anything but adjuncts. Butt and Lahiri (nd) present arguments for the historical stability of these constructions.

Table 3 *wake* and some of its extensions

Specialized use	Meaning	independent meaning of adjunct
akwe wake	'marry a woman'	woman, wife
apuluk wake	'have a child'	child
iniki wake	'act wisely'	heart, feelings, inner self
keyage wake	'thank'	appreciation, welcome
ndawi wake	'sing'	song
nggumu wake	'bathe'	bath
pelan wake	'finish a roof'	rafter
pulu wake	'use a chisel'	chisel
wiya wake	'wind blows'	wind

(see Section 5 for more discussion of this phrasal unit). An example of this is shown in (37), which models (26):
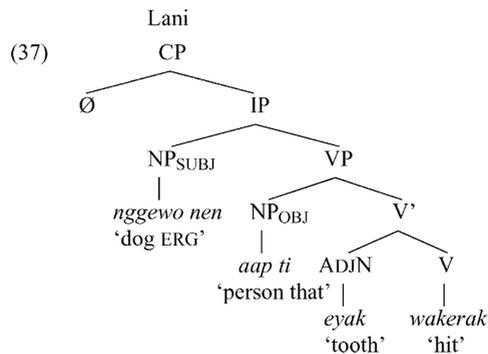
While some verbs in English, such as *bear*, show a range of meaning depending on the noun that they occur with (such as *bear a grudge*, *bear a heavy load*, *bear down on the foe*, *bear the pain*, etc.), the position of these so-called 'adjunct nominals' is different, in that, when occurring with a transitive verb, they do not prevent it from occurring with an unbound object. In this way they are also very different from cognate objects in languages such as English. For a recent analysis of a very similar construction in Tamil, with discussion of why previous analyses are inappropriate, see Vijayakrishnan (1994). The difference between Vijayakrishnan's analysis and that sketched here can probably be attributed to the lack of prefixal verbal morphology in Tamil, and the occurrence of modified Ns in the adjunct nominal position in New Guinea languages.[13] Similar comments apply to the richer typology provided by Mohanan (1995, 1997). The phrase-structure rules that are required to generate the tree above are as follows:

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[13] Some languages of New Guinea are reported as showing full NPs in this position (Foley pers. comm.), though I have not seen this data.

Lani

(38)
CP	→	(NPTOP)	IP	
IP	→	(NPSUBJ)	VP	
VP	→	(NPOBJ)	V'	
V'	→	(ADJN)	V	

Case principle: assign ERG to sister of VP *iff* NPOBJ is instantiated

> (Obliques have not been included in the phrase structure rules listed. They may be generated by right or left adjunction to IP, VP or V', but may not be left-adjoined to V, as nothing may intervene between the verb and an adjunct nominal. The 'AdjN' in the rules above refers not to any adjunct NP, but to the semantically restricted expressions seen in (26) and Table 3.)

Evidence that the noun assigned to the sister-of-V' position is indeed the object can be gauged by examining the agreement patterns on the verb when the person or number of this argument change, as in (39). Here we have a plural patient, *komologwe* 'women', and the verb shows agreement for plural. Plural agreement on the verb is not possible without a plural subject argument or a plural object argument.

Lani

	SUBJECT		OBJECT	ADJN		VERB
(39)	*Nggewo*	*nen*	*komologwe*	*ti*	*eyak*	*inokerak*
	dog	ERG	women	that	tooth	3SG.S/A:hit:3PL.P
	'The dog bit those women.'					

Additionally, in languages, such as Kalam (Pawley 1966) and Kobon (Davies 1981, 1985), that assign an accusative case (at least to pronouns) and not an ergative case, this case is still found on the argument that I am claiming is the object; language with a nominative case (such as Fore; Donohue and Donohue 1997) have the same case principle as seen in (38) except for the condition on the instantiation of an NP_{OBJ}. In these languages, too, the adjunct nominal remains tightly bound to the verb.

4. Other accounts of subject case in Papuan languages

Previous accounts of the appearance of case marking in the languages of New Guinea have focussed on the functional role that these case markers serve. We have already seen an example of this in the set of criteria that Foley listed for describing the appearance of case in Fore, seen here as (13).

These accounts, while functionally justified, allow not for the role of pragmatics as a deciding factor in the variability that Foley's model does not account for, rather than not allowing for the lack of variability with certain pragmatically-determined items (namely question words and their responses) (see (17)–(18) and the discussion associated with those examples). Some other problems with the Scott/Foley account of Fore case marking are discussed in Donohue and Donohue (1997).

An interesting twist on the patterns that we have described above is found in Kirikiri (Clouse and Clouse, pers. comm.). In this language the overwhelming majority of sentences can be described with a subset of the schema shown in Table 2, A P V and P A-ERG V; the order A-ERG P V is very unusual (see below), and PAV is (predictably) ungrammatical: these strings are interpreted as APV.

Kirikiri

(40)   *Té*   *siji*   *na.*
       child   pig   ate
       'The child ate (some) pork.'

(41)   *Siji*   *té*   *na.*
       pig   child   ate
       'The pig bit the child.'

(42)   *Siji*   *té-i*   *na.*
       pig   child-ERG   ate
       'It was pork that the child ate.'

The Kirikiri facts can be quite simply accounted for by assuming the model that has been proposed above, with the addition of a requirement that the pre-clausal 'pragmatic' position must be filled: the structural position that has been assigned to topic is now (almost) obligatorily filled, and so has lost its pragmatic status, becoming merely a complication in the phrase structure. Thus in contradistinction to the 'regular' pattern in which the pragmatically neutral order is A P V and the marked position is pre-clausal, in Kirikiri (and other languages of the Lakes Plains family) the pragmatically marked coding option is to have a case-marked A-ERG precede the P and the V.

Although this is an increase in complexity of the model proposed, it shows how integrated the pragmatic positions are in the grammar of some of the languages in the area. The following section will clarify some additional reasons why this is a necessary step.

5. Involuntary state predicates

The model we have developed is able empirically to account for a wide range of data from the languages that we are considering. It cannot, however, adequately model an extremely common clause type that is found in the languages of New Guinea. In many languages of this area, involuntary state predicates are coded with a root transitive verb, rather than the intransitive option that is found in English.[14] In the

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[14] Though both options are present for some predicates in English: compare the normal intransitive *I've got a headache* with the more emphatic, and transitive, *My head's killing me*. The second of these sentences represents the normal New Guinea coding strategy in terms of coding of participants, and indeed the construal of participants in terms of the grammatical functions.

transitive clause the experiencer is the morphological 'object' of the verb and the stimulus is the 'subject'. Consider the following sentence:[15]

Lani

(43) *At   andi   ekerak.*
      3SG   sickness   3SG.S/A:did:3SG.P
      'He was sick.'

In this sentence there are two non-case marked nominals, and a verb apparently marked with third person singular agreement (or lack thereof) for both subject and object. According to the model we have developed so far we would have to assume that *at* is the topicalized subject, and that *andi* is the object. Consider, however, the following sentence, identical except for the identity of the sick person:

Lani

(44) *An   andi   e'nakerak.*   (<*et-nap-q-e-taq*)
      1SG   sickness   3SG.S/A:did:1SG.P   do-1SG.P-R-'3SG'-PAST
      'I was sick.'
      That is, 'Sickness did me.'

The verbal morphology in this example makes it clear that *andi* is not the argument morphologically coded as object on the verb, but rather that *an* is. Further evidence relevant to determining the best way to model sentences of this type involves word order possibilities and case marking. Firstly, note that in (43) and (44) the object (as judged by verbal morphology) appears initially in the sentence; this implies (based on our current model) a PAV word order which, according to the model developed in Section 2, should be due to the structural object appearing in the extra-clausal position, with a structure something like [CP *An* [IP *andi* [VP Ø [V *e'nakerak*]]]]. *Andi* in (43), however, does not appear with ergative case, nor is that case possible on either argument in this construction.

Lani

(45) * *At andi nen ekerak*
       3SG sick ERG 3SG.S/A:did:3SG.P

(46) * *At nen andi ekerak*
       3SG ERG sick 3SG.S/A:did:3SG.P

Possible word orders that place the involuntary state *andi* preceding the (verbally-marked) object are also ungrammatical, with or without case marking:

Lani

(47) * *Andi at ekerak*
       sick 3SG 3SG.S/A:did:3SG.P

---

[15] The construction described here resembles some of the [X' V] constructions of Malayalam (Mohanan 1982: 541ff), though note that the experiencer in Lani is not *dative*, as is commonly the case in South Asian languages, but accusative (as seen in the agreement marking on the verb; a separate set of dative verbal prefixes exists). A similar construction is discussed in Kiss (1994), Butt (1995), and in T. Mohanan (1995, 1997).

(48) *   *Andi nen at ekerak*
      sick ERG 3SG 3SG.S/A:did:3SG.P

Assuming for the sake of argument that *andi* in these sentences corresponds to the A, as the complement of the P, we may informally plot the differences between predicates of this sort and the 'normal' predicates (seen in the preceding sections) in Table 2. Here we can see clearly that the involuntary state predicates do not match the patterns described for normal predicates at all.

In addition to not receiving the ergative case, the putative subjects of involuntary state predicates such as *eke* cannot be separated from their verbs. This is very reminiscent of the behaviour of 'adjunct nominals' outlined in Section 2, and in fact these predicates show many of the characteristics of these predicate types: a semantically broad 'light' verb which is associated with a more specific nominal. A non-exhaustive list of the sorts of nominals that may combine with *eke* is given in Table 5 (largely from Barclay nd).

This suggests that the best structural position for these nominals is that of the adjunct nominal, a sister to V underneath V'. The correct phrase-structure tree for (43) is that shown in (49), in which the sufferer is not the topicalized subject of the sentence but, rather, is structurally in the VP, making it analogous positionally to the object of more typical transitive clauses. The stimulus is not the object, nor indeed the subject, but is coded as sister of V. (See Section 8 for arguments against their being any syntactic 'subject raising' out of the VP at the IP level; topicalization at the CP level is still possible, as hypothesized in (80) below.)

Lani: the structure of (43)

(49)

```
                        CP
                       /  \
                      Ø    IP
                          /  \
                         Ø    VP
                             /  \
                         NP_OBJ  V'
                           |    /  \
                           at  ADJN  V
                          'he'  |    |
                              andi  ekerak
                             'sick'  'did'
```
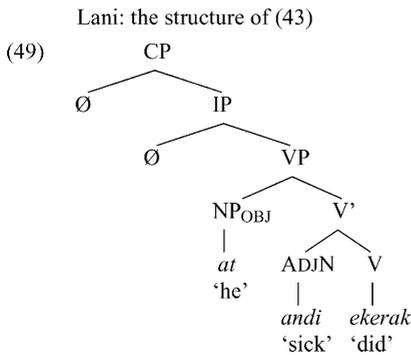
Table 4 The clausal morphosyntax of 'normal' vs. involuntary state predicates

	'normal'	involuntary state
A P V	√	*
A-ERG P V	√	*
P A V	*	√
P A-ERG V	√	*

Table 5 *eke* and some of its extensions

Specialized use	Meaning	independent meaning of nominal
-agabiti eke	'feel fear'	fear
-amiya eke	'bleed'	blood
ame'met eke	'feel itchy'	–
awoligi eke	'spit'	spittle
engga'li eke	'feel embarrassed'	shame
iniki me eke	'tempt'	heart+LOC
kerek eke	'flash (of lightning)'	flash
kom eke	'clean dirt off taro'	taro
kuwak eke	'gather'	–
liigak eke	'sweat (v.)'	sweat (n.)
lu'ngget eke	'play a mouth-harp'	mouth-harp
mbingga eke	'gather vegetables'	vegetable(s)
mi eke	'have an earthquake'	earthquake
nalok kalok eke	'be disordered'	–
nggurubu eke	'sound thunder'	thunder
nggut eke	'impure'	–
nuknuk eke	'shake'	–
ogogun eke	'become angry'	gall bladder
pu eke	'blow'	–
tonggok eke	'cough'	cough
tugum eke	'feel pins and needles'	–
wiya wake	'wind blows'	wind
yabu me eke	'work in the garden'	garden+LOC
yimun namun eke	'feel dizzy'	–

This position successfully predicts that not all subject properties accrue to *andi* and other nominals in this position. For instance, although these nominals appear to be indexed on the verb, these verbs may not show plural agreement and still have the basic interpretation described above, indicating that the apparent agreement might in fact be a pleonastic agreement, not agreeing with the adjunct nominal, but simply filling a morphological slot with the smallest and least innocuous amount of material available in the paradigm. Compare the translations of (43) with (50), which are identical other than (50) showing plural marking for subject on the verb.

Lani

(50) *At   andi   ekarak.*
      3SG   sickness   3PL.S/A:did:3SG.P
     * 'He was sick many times over.' (that is, * 'Sicknesses affected him')
      Acceptable for: '(They) caused him to be sick.'

In addition to its wide range of uses with various semantically specifying nominals, the verb *eke* is also used for causativization of basic stative predicates, and the only interpretation of (50) that is grammatical is the causative one. This is a variant of the following sentence, shown with an overt causative subject in initial position (optionally pre-clausal, in which case no ergative marking will be present).
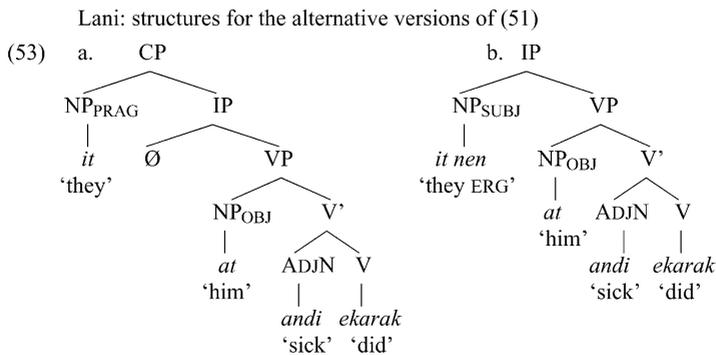
Lani

(51) *It*   *(nen)*   *at*   *andi*   *ekarak.*
      3PL   ERG   3SG   sickness   3PL.S/A:did:3SG.P
      'They caused him to be sick.'

It should be noted that it is not the plurality itself which is responsible for the change in interpretation. Rather, plurality and the change that comes when it is marked on the verb is merely symptomatic of the restrictions that are placed on verbal agreement for a nominal in this position. Other persons or numbers for either subject or object are possible with the causative interpretation, as in

Lani

(52) *At*   *an*   *andi*   *e'nakerak*
      3SG   1SG   sickness   3SG.S/a:did:1SG.P
      'He made me sick (by sorcery).'

Indeed, a sentence such as *at andi ekerak*, while unmarkedly interpreted as 'He was sick', is also a grammatical version of '(3sg) made him sick', analogous to (51) but with overt free pronominal reference to the subject omitted. Sentence (51) has the following possible phrase structures, depending on the position of the subject (compare with (49), where no arguments external to the VP are present).

Lani: structures for the alternative versions of (51)

(53) a.

We do not require any changes to the phrase-structure rules to account for the word orders seen in these sentences. The ergative case marking principle in Lani (see (14)) is similarly unaffected, since it only applies to an A argument which is the sister of VP, and not to an argument which is the sister of V itself.

6. Other accounts of uncontrolled predicates in Papuan languages

Foley (1986) discusses the difference between controlled 'normal' and uncontrolled predicates in a range of languages from New Guinea. He argues that the pattern described above is one that, in some ways, reflects the semantics of the situation more closely than does the pattern found in languages such as English, in that the

undergoer is explicitly coded as such by the verbal semantics, whereas in English there is a coding clash in a sentence such as 'I'm sick': the proto-typical subject is a controlling actor, yet this position is used here to code an undergoer. This coding conflict is even more apparent in transitive clauses such as 'I've cut my finger', where the non-agentive reading allowed in English is highly marked, and often requires the mediation of derivational morphology or an alternative structure, in which 'I' is not coded as a (normally agentive) A. This account leans towards the view, presented at the beginning of this article, that there is a greater role for the semantic identity of the argument in determining the coding it receives on the verb in these languages than in European languages, which have a strongly grammaticalized notion of 'subject' and 'object'. It is worth noting that transitive verbs without agentive arguments, such as 'receive', are usually not present in Papuan languages, and that distinctions of agency in perception verbs such as 'look at' versus 'see', 'listen to' versus 'hear', are not lexically coded. The prototype notion, of an agentive A and a patientive P, is strongly enforced in Papuan languages (see the discussion of the notion 'primary transitive verb' in Andrews 1985: 68).

The test for this notion would be to examine the agreement behaviour of a language for which the core/oblique distinction was not so heavily grammaticalized. Alamblak is such a language (Bruce 1984). While not a Trans New Guinea language (it belongs to the Sepik Hills group, part of the Sepik family), it has been documented as showing strong influence from the highlands languages with which it is in contact. In this language there are two agreement positions on the verb, as seen in the following sentences (taken from Bruce 1984: 132, 138, 6):

Alamblak

(54) *Yi-më-r.*
go-R.PST-3SG.M
'He went.'

(55) *Fiñji   noh-r-më-r.*
NEG   die-IRR-R.PST-3SG.M
'He did not die.'

(56) *Yawy-t   fëh-r   was-më-t-r.*
dog-3SG.F   pig-3SG.F   pierce-R.PST-3SG.F-3SG.M
'A dog bit a pig.'

While it might be thought that the language marks agreement on the verb according to a V-SUBJ-OBJ template (to simplify), the following sentences show that this is not the case (Bruce 1984: 220, 225):

Alamblak

(57) *Yima-r   ɨnd   kmi-t   dbëhna-më-r-t.*
person-3SG.M   DEM   village-3SG.F   sick-R.PST-3SG.M-3SG.F
'A man was sick at the village.'

(58)   *Na*   *ɨndar*   *kuñ-t*   *gënngtay-an-t.*
       1SG   DEM   house-3SG.F   cold-1SG-3SG.F
       'I am cold in this house.'

In (57) and (58) the first agreement marker displays agreement with the subject, as expected, but the second agreement marker (there are maximally two agreement markers per verb) marks something else, a location (Bruce (1984: 221–222) discusses the principles behind eligibility for coding on the verb). Alamblak, then, is a language that clearly marks the most prominent argument on a hierarchy of semantic roles and another prominent argument in the clause, selected for whatever pragmatic reasons dominate the discourse at that point. Crucially, the language selects pragmatic prominence as the defining factor in determining eligibility for agreement on the verb, rather than grammatical function. This is analogous in principle to the 'locative inversion' strategy found in many Bantu languages, or the optional treatment of instrumentals in some Quechua varieties (Wunderlich and Lakämper 2001).[16]

The phrase-structural account argued for here analyses the variation in terms of strict phrase structure constraints, with a complication in the presence of core nominals other than subject or object, following Mohanan (1997). Evidence that this structural position is independently required in the analysis of at least some New Guinea languages comes from the south coast, where there are productive alternations between regular objects and semantically restricted and phrasally bound alternants.

7. The 'verb +' constituent

Kanum, a language of south-west New Guinea, provides interesting supporting data for this analysis of a V' unit in the constituent structure. The same sort of adjunct nominal constructions are found in Kanum as in many other languages of the region, as can be seen in (59). (These examples are, because of their productivity, most strikingly similar to the Malayalam [X' V] data involving *aanɨ* 'be', described in Mohanan 1982). (The lack of any explicit third person pronouns means that the demonstratives *ngki* 'this' and *pi* 'that' are used for this function.)[17]

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[16] A particularly nice example in Alamblak, showing the range of uses that the second set of suffixes can be used for, is the following (Bruce 1984: 225).

(ii)   *Na*   *rahoy-t*   *korhëy-w-t-a.*
       1SG   post-3SG.F   heavy-IMPF-3SG.F-1SG
       'The post is heavy for me now.'

Foley (pers. comm.) reports that some Lower Sepik languages (other than Yimas) have a verbal agreement system in which the subject is coded on the verb, and then one more pragmatically salient argument. This system is less free (less dynamic) than the Alamblak one, but it is noteworthy that these geographically contiguous languages show a similar typologically unusual system of verbal agreement.

[17] There are no phonemic high vowels, *i* and *u*, in Kanum. The graphemes <*i*> and <*u*> stand for the glide phonemes *y* and *w* in a syllabified context (roughly CC → CᵊC, with assimilation). The digraph *ao* represents a low back rounded vowel, [ɒ].

Kanum

(59) *Pi*   *mpaorao*   *t-ao.*
      that   deafness   3FEM.FUT.P-be
      'She's going deaf.'

In Kanum a normal transitive clause appears with ergative case on the subject, agreement for subject and object on the verb, and free word order. In addition to (60), the other five variants in (61) are equally grammatical. Note the lack of number marking on the nominal *mao* 'wallaby', or on the verbal prefix for the P.

Kanum

(60) *Mao*   *py-engku*   *s-r-rwenten-nt.*
      wallaby   that-ERG   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase a wallaby.'

(61) *Mao srrwentennt pyengku, Srrwentennt mao pyengku, Srrwentennt pyengku mao,*
      Pyengku srrwentennt mao, Pyengku mao srrwentennt.

When no overt object is specified the verb must appear with a lexically determined 'nominal' immediately preceding it (each verb has at least one lexically assigned, unique, nominal that appears in this construction; some verbs allow a limited and culturally specific, but still more open, set of nouns in this position). The A is not case marked; ergative case is not possible. The only grammatical work orders are those that keep the generic, non-referential 'nominal' in an immediately preverbal position. Other word orders are ungrammatical.[18]

Kanum

(62) *Pi*   *kawi*   *s-r-rwenten-nt.*
      that   chasing   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase (something).'

(63) * *Py-engku*   *kawi*   *s-r-rwenten-nt.*
      that-erg   chasing   NFEM.P-1/3FUT.S/A-chase-FUT

(64) *Kawi srrwentennt pi;* * *Srrwentennt kawi pi,* * *Srrwentennt pi kawi,*
      * *Pi srrwentennt kawi,* * *Kawi pi srrwentennt.*

Unlike languages such as Lani (see Section 3), there are no clauses with a subject, an object, and an adjunct nominal. The adjunct nominal+verb construction is used

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[18] For some predicates an incorporation analysis is tempting, whereby the caseless nominal is incorporated (into a V'-level structure). This is especially appealing in cases where the nominal is a regular lexical noun, such as *mao -rwenten-* wallaby chase 'hunt wallabies', or *tr -wr-* tooth bite 'bite', or an abstract noun clearly derived from the verb, such as *angkaray -angkar-* swim(n.) swim(v.) 'swim'. Other cases the nominal is not attested except in this construction, such as examples like *mpyay -ao* ?? be 'is', making a productive incorporation analysis hard to sustain, though not entirely implausible. Other analyses that appeal to V'-level incorporation can be found in Donohue (1997, 1998) and Massam (2001).

only when a transitive verb appears with no lexical object, in order to satisfy a constraint in the language requiring morphosyntactic expression of transitivity.[19]

This construction with the A in absolute case is also available for clauses with full nominal objects, and again the word order is invariably, and inseparably, object-verb. The following sentences show that *mao* and *srrwentennt* must appear in that order, and must be contiguous, in a clause in which the A is not marked with ergative case.

Kanum

(65) *Pi   mao   s-r-rwenten-nt.*
      that   wallaby   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase wallabies.'

(66) *Mao srrwentennt pi; * Srrwentennt mao pi, * Srrwentennt pi mao,*
      * * Pi srrwentennt mao, * Mao pi srrwentennt*

The nominal in the [$_{V'}$ X+V] unit must be a bare nominal: any modification of the plain, generic nominal is ungrammatical; all these sentences are grammatical (and, moreover, the order of the verb and both NPs is free) if the A is marked as ergative.

Kanum

(67) * *Pi   mpu-ne   mao   s-r-rwenten-nt.*
      that   2SG-DAT   wallaby   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase your wallabies.'

(67)' *Pyengku mpune mao srrwentennt.*
(68) * *Pi   yuaw   mao   s-r-rwenten-nt.*
      that   three   wallaby   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase three wallabies.'

(68)' *Pyengku yuaw mao srrwentennt.*

(69) * *Pi   ntaop   mao   s-r-rwenten-nt.*
      that   big   wallaby   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase big wallabies.'

(69)' *Pyengku ntaop mao srrwentennt.*
(70) * *Pi   mao   pi   s-r-rwenten-nt.*
      that   wallaby   that   NFEM.P-1/3FUT.S/A-chase-FUT
      'He's going to chase those wallabies.'

(70)' *Pyengku mao pi srrwentennt.*

These data are suggestive that the best analysis of Kanum is that it is a language with scrambled clausal word order, but with a non-scrambling V' constituent which is home to the generic object (lexically specified for each verb and present in the absence of a referential object), or to a contextually-selected nominal when it is used

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[19] The data are in fact somewhat more complex than this, but do not contradict this summation.

with a generic meaning. Support for this position comes from resultative constructions, in which the clause appears with an overtly marked nominal following the verb, as in (71). (72) shows that not only are *yuri* and *naymamt* bound as an inseparable unit but that they must occur in this order.

Kanum

(71)   *Kery-u*   *y-ur-i*   *naymam-t*   *pi.*

           crocodile-ERG   NFEM.P-bite-T.PAST.SG.S/A   die-RES/PURP   that

           'The crocodile bit him (so that he was) dead.'

(72)   *Keryu pi **yuri naymamt**; Pi keryu **yuri naymamt**; Pi **yuri naymamt** keryu;*
           Yuri naymamt** keryu pi; **Yuri naymamt** pi keryu; * Keryu **yuri** pi **naymamt**, * Pi **yuri
           *keryu **naymamt**, * **Yuri** keryu **naymamt** pi, * Keryu **naymamt** yuri pi, etc.*

The relevant phrase-structure rules, in outline, are shown in (73). The lack of any second-position phenomenon, as well as the presence of fixed word order in NPs, suggests that there are discrete NP units which are not ordered inside the clause with respect to either each other or to the verb. There is also a unit comprised of the verb and another element, a nominal used with a generic, non-specific interpretation, or the nominal version of a verb marked for being a resulting state.[20]

(73)   IP   →   (DP)*, V'

           V'   →   (AdjN) V   (nom-result)

           Case principle: assign ERG to A *iff* A is sister to P

      (note that the strict [adjunct nominal-verb] order inside the V' mirrors the strict head-final order that is found inside the NP and DP)

Support for the models that have been proposed comes from an examination of the patterns we find in clausal conjunction, and the morphological selection of switch reference.

8. Switch reference

Switch reference (Haiman and Munro 1983; Reesink 1983; Finer 1985; Foley 1985, 1986; Haiman 1987; and others) is a morphological system that indicates on the verb whether or not the reference of the NPs in the two clauses is the same or different, in terms of person/number features (usually of the 'subject'), or temporal scope. The Lani switch reference system is relatively uncomplicated, compared to the elaborations that

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[20] There is good evidence for a DP in Kanum, motivated primarily by agreement in case marking between the head of the NP and the head of the DP, but no elements in the constituent: *yempoka-Ø ntaop-Ø kery-u py-engku* two-Ø big-Ø crocodile-ERG that-ERG 'those two big crocodiles'. Scrambled DPs case-mark the final word in each NP segment, and the D. In other non-Austronesian languages of New Guinea, other than those of the Madang group, the evidence for a DP is less convincing. Note also that, in the light of the lack of internal structure in the IP, we might, employing Bresnan's (2001) distinctions, describe this as an S rather than an IP.

some highlands Trans New Guinea languages have developed (see, for instance, the anticipatory subject marking on verbs in Fore – see, amongst others, Scott 1978).

In Lani switch reference functions are found with the conjunctions *mbareegi* and *logonit*. When two clauses with regular verbs are linked in temporal sequence, and the subject is the same in each of them, then one option available to the speaker is to have the nonfinal form of the verb followed by *logonit* 'and then'. This can be seen in (74) (the use of *nege* 'go' in these sentences gives a continuative reading to the clause):

Lani

(74) *At*   *ndawi*   *warik*   *nege*   *logonit,*
    3SG   song   3SG.S/A.hit.and   3SG.S/A.go   and.SR
      pagi   wari   nagarak.
      cuscus   hitting   3SG.S/A:went
    'The boy$_i$ was singing as he$_i$ went hunting for cuscus$_j$.'

When the subjects of the two clauses are not coreferential, *mbareegi*, rather than *logonit*, is used as a linker. This indicates that the subject in the second clause cannot be construed as coreferential with the subject of the first.

Lani

(75) *Kweliga*   *wam*   *inorik*   *nege*   *mbareegi,*
    girl   pig   3SG.S/A.hit.3PL.P.and   3SG.S/A.go   and.DR
    ngganggok   *paga*   *ma nagarak.*
    second.floor   abl   run 3SG.S/A:went
    'The girl$_i$ was hitting the pigs$_j$, and one of them$_j$ ran up to the second floor.'
    * 'The girl$_i$ was hitting the pigs$_j$, and then she$_i$ ran off to the second floor.'

In effect, then, the contrastive use of *logonit* and *mbareegi* as clausal conjunctions serves as a switch reference system. Since, when both clauses consist of regular verbs, the category monitored by *logonit* is same subject in the two clauses, we can refer to the use of *logonit* as being a same-subject construction. In other cases *mbareegi* is used, regardless of coreference between arguments in the two clauses.

With the involuntary state constructions we find apparent mismatches in the monitoring of subjects across clauses, though, as we shall discuss in the following section, this is a nomenclatural problem linked to the term 'subject'. The linker *logonit*, which links clauses that share the same subject, is used when the affected argument in the first clause (marked on the verb as object; see Section 5) is coreferential with the subject in the next clause.

Lani

(76) *An*   *andi*   *e'nake*   *mbake*   *logonit,*
    1SG   sickness   3SG.S/A:did:1SG.P   and   and.SR
    (an)   *nawi*   *paga wanggegirak*
    1SG   my:house   ABL 1SG.S/A:went.down
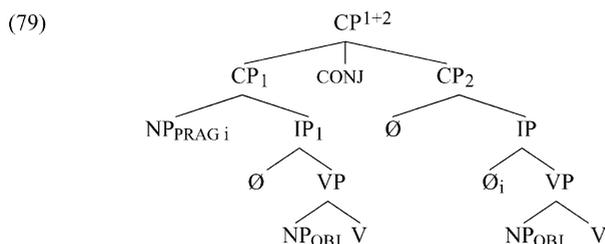   'I$_i$ was sick, and (so) I$_i$ went home.'

(77)　*An andi e'nake logonit, wim　　　　　ekirak.*
　　　　　　　　　　　　　　　arrow　　　　　1SG.S/A:do:3SG.P
　　　　'I$_i$ was sick, and during that time I$_i$ made an arrow.'

The apparent object of the first clause (judged by the agreement suffix on the verb) is not the same as that of the second clause, yet the different-subject linker *mbareegi* may not be used. Compare (76) with the following, identical except for the use of the different-subject linker.
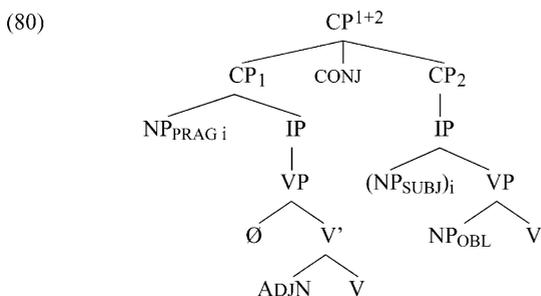
　　　　　Lani

(78)　　* *an andi e'nake mbareegi, wim ekirak*
　　　　　　　　　　and.dr

Clearly the category marked as 'subject' on the verb, the conflation of S and A syntactic roles, is not the same as the putative 'subject' that is monitored by the switch reference system. If we examine the clauses in terms of their structural characteristics, however, some regularity emerges. In (74) the following structure obtains over the two clauses:

(79)

$$CP^{1+2}$$

```
                    CP^{1+2}
                 /      |      \
              CP_1    CONJ     CP_2
             /    \           /    \
       NP_PRAG i   IP_1      Ø       IP
                  /   \             /   \
                 Ø     VP         Ø_i    VP
                      /   \             /   \
                 NP_OBJ    V       NP_OBJ    V
```

Here we have the NP that is sister to IP (or VP) in the first clause deemed coreferential with the NP in a similar sister-to-VP structural position in the second clause. Examining the structure in clauses with involuntary state predicates, such as (76), the following structure shown in (80) obtains:[21]

(80)

```
                    CP^{1+2}
                 /      |      \
              CP_1    CONJ     CP_2
             /    \              |
       NP_PRAG i   IP            IP
                   |            /   \
                   VP      (NP_SUBJ)_i   VP
                  /   \               /   \
                 Ø     V'        NP_OBL    V
                      /   \
                  ADJN      V
```

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[21] I have shown the first clause in this tree as having a pragmatically salient *an*; there is no morphological evidence for it, and indeed the first clause could equally well be represented by the structure [CP [IP [VP *an* [V' *andi e'nake*]]]]. The analysis would be the same in either case, since the pronoun *an* occupies the structurally highest filled position in the clause.

In terms of structural positions, the same configuration holds here as was found with (79): the sister of IP in the first clause is deemed coreferential with the NP that is (elliptically) sister to VP in the second clause. In both cases 'sameness' or 'differentness' refer to the NP occupying the highest position in the structure, not to the marking on the verb. This same analysis will work on sentences such as (75), in which a transitive clause is linked to an intransitive clause.

This analysis suggests that it is topicality, and not the grammaticalized 'subject' (as defined by verbal morphology) that is referred to by the switch-reference system, that in effect the two systems, verbal inflection and switch reference, do not refer to the same grammatical entity. Supporting evidence that this is possible can be found in Apalɨ and Koromu, Trans New Guinea languages of the Madang family.

In Apalɨ, we find an interesting twist on the typical switch-reference system that pervades the Trans New Guinea languages. There is evidence that two separate functions are monitored by the switch reference system, one of which is comparable to the entity marked by the verbal agreement morphemes, one of which is not. Same-subject (ss) is marked by the suffix *-vɨla*, and different subject is shown by a set of person/number inflecting suffixes that are distinct from the sentence final desinences. This can be seen in the following sentences, the first showing the use of same-subject forms with no person marking on the verbs *hɨlana* 'cook' and *viasa* 'hang from head', and the second showing the sentence-medial inflections for different subject on *ve* 'come' and *igɨ* 'see'. In both sentences the final verb carries inflection for both subject and tense.

Apalɨ (Wade 1997: 2)

(81) *Hɨlana-vɨla* *vaŋ* *viasa-vɨla* *cɨhu* *ala* *u-ah-ɨlu,* *uleŋ.*
      cook-ss string.bag hang.from.head-ss again FOC go-FP-1Pl village
      'We$_i$ cooked and Ø$_i$ put our string bags on our heads and again we$_i$ went, to the village that is.'

(82) *Ve-havɨ-ci* *igɨ-lɨŋ* *tane* *aga-dɨ* *hav-alɨ.*
      come-3PL-3.DS see-1SG.DS pumpkin DEF-ACC carry-3.FP
      'They$_i$ came and I$_j$ saw (him)$_k$ and he$_k$ carried the pumpkin.'

In addition to this, the most common, use of switch-reference morphology, Apalɨ also allows medial verbs with both the different-subject medial desinences, and the same-subject suffix. Wade (1997: 9).describes this as follows:

> The most frequent use usage of DS + SS in texts is for topic monitoring. It is frequently used to show that even though there is a switch of grammatical subject, the topic is remaining the same.

An example of this can be seen in the following example, in which the topic of the first clause, 'we', expressed by agreement on the verb *u* from the medial 'different subject' paradigm *-mɨli*, is followed by same subject morphology *-vɨla*. The following clause behaves as would be expected with respect to its reference clause. The explanation for the DS + SS forms both appearing on *u* is that, although the 'subject',

as monitored on the verbs *u* and *lɨ*, changes, the topic of the discourse remains the same, as evidenced by the dropping of the subject of the second clause *hehɨla* 'fish' and the resumption of 'we' as the subject in the third clause.

Apalɨ (Wade 1997: 11)

(83)   ... *idu*   *u-mɨli-vɨla*   *hehɨla maŋ*   *iavɨ-maŋ* *lɨ-ci*
          swamp   go-1PL.DS-SS   fish   NEG   bite-NEG   do-3.DS
          vala   *ve-lu.*
          leave   come-1PL
          '...we$_i$ went to the swamp and the fish$_j$ did not bite and we$_i$ left and came.'

(83)'
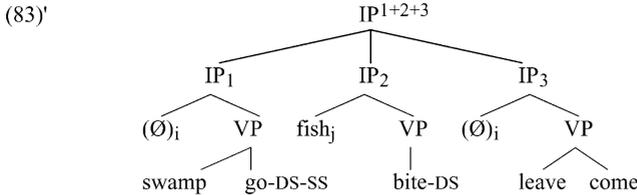
Here the same principles are found as have been described for Lani, except that both highest structural argument and sister of VP (a grammaticalized position: both case marking and verbal agreement refer to this position) can be monitored. The different subject morphemes are selected based on the identity or otherwise of the sister of VP in the two clauses. The so-called 'same subject' suffix *-vɨla*,[22] however, monitors same or different topic, a pragmatic function, and thus appearing at a higher level than the sister of VP, in terms of textual structure. An identical arrangement is found in Koromu, a related Madang-Adelbert language.

In Koromu (Trans New Guinea language of Madang province; data from Priestley 2001), switch reference marks both temporal relation as well as what Priestley glosses as ss 'same subject' VERSUS DS 'different subject'. We can firstly note that conjunction with involuntary state predicates such as have been described in Section 5 show that, whatever is being monitored, it is not the morphologically marked subject. In (84) it is clear that the first person plural argument is coded as a P on the verb *perauru* 'hungry', yet despite this it is linked to the previous clause, in which the first person plural is the S/A argument, with ss morphology.

Koromu: Conjoined clauses with involuntary state predicate

(84)   ... *wa*   *aiye*   *te = re = **pe***   *si*   *perauru-seka-p-a-te* ...
          garden work get = put = SS so   hunger-1PL.P-HAB-3SG.S/A-DS
          '... we$_i$ work in the gardens so we$_i$ get hungry, and ...'

The following example (Priestley 2001: 203–204) has no involuntary state predicate, but it does involve a chain of clauses that clearly establish a topic, a third person plural referent. In the fifth clause, *sene weree-seka-pente*, this argument sees a

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[22] For 1SG subjects there is no overt morpheme marking 'same subject' coordination, but neither is there any sentence medial desinence, such as would be required for a 'different subject' conjunction. Paradigmatically, then, the 1SG fit into the 'same subject' set.

Table 6 A map of inter-clausal relations in (83)

Clause	topic	S/A	status of clause	link to following clause
I	1PL	1PL	foreground	DS+SS
II	(1PL)	3PL	background	DS
III	1PL	1PL	foreground	

first person plural argument which is the S of the following clause; despite this change in grammatical reference, the switch reference marking continues to monitor the topicality of the third person plural argument, and indicates that the following clause is a piece of background information. In this way it is functionally similar to the morphologically more complex Apalɨ example seen in (85), in which *u-mɨli-vɨla* shows the continuity of the same topic with *-v⌐la*, and the change in S/A with the use of ds morphology. In Koromu only one set of switch reference markers may be used, and by preference the language monitors the topic, rather than the clausal 'subject'.

Koromu

(85)　… *ka-e.*　　*Ka-pente*　　　*ya Kohu*　　*sa*　　*ya*　　*pa*　　*mo*
　　　 come-3PL　come-3PL.LD.SS　water Kohu　LOC　water　LOC　this

　　po　　*ta-pe*　　*era*　　*topi-pe*　　*sene*　　*weree-seka-**pente***
　　cross　end-SS　bank　climb-SS　1PL　see-1PL.P-3PL.LD.SS

　　pe　　*waine*　*pa*　　*pekoro=n-ia-te …*
　　cliff　near　LOC　line.up=stay-1PL.S/A-DS

'…theyᵢ came. Øᵢ Having come, theyᵢ crossed this river, the river Kohu, Øᵢ climbed the bank, and Øᵢ saw usⱼ lined up near the edge of the cliff, …'

The relationship of each clause to the following one, shown with respect to the identity of the core arguments of the clause and the switch reference marking employed and the groundedness of the clause in the discourse, is shown in Table 7.

　Using the Apalɨ, Koromu and Lani cases presented here as illustrative of wider patterns, we can note the following patterns for disruptions of topic. If topic, determined textually, and S/A, determined from verbal morphology, both remain the same, or both change, across the clause boundary then there is no issue that the switch reference marking must be ss or DS, respectively. If, however, the S/A changes, but the pragmatic topic does not, then we must mark with ss morphology. This forces us to conclude that tracking topic is more important than tracking a clause-internal notion such as subject. Given that we would also correctly predict the switch

Table 7 A map of inter-clausal relations in (85)

Clause	S/A	P	status of clause	link to following clause
I	3PL	–	foreground	SS
II	3PL	–	background	SS
III	3PL	–	foreground	SS
IV	3PL	*era*	foreground	SS
V	3PL	1PL	foreground	SS
VI	1PL	–	background	DS

Table 8 Patterns for marking topic discontinuities

Identity across clauses Topic	S/A	Topic in clause 3	link between clause 1 and 2
1 = 2	1 = 2	any	SS
1 = 2	1 ≠ 2	1	SS
1 = 2	1 ≠ 2	≠ 1	DS
1 ≠ 2	1 ≠ 2	any	DS

reference morphology for the other two cases on the basis of switch reference monitoring same or different topic, we must conclude that subject is not a deciding factor in the choice of switch reference morphology. The data is summarized in Table 8.

I am not claiming that the sameness or differentness of the argument identified as subject in two consecutive clauses plays no role at all in determining the switch reference marking in the sentence; this is clearly not the case, and an empirical investigation would of course reveal overwhelmingly strong correlations in this direction (hence the terminology that is common). What I am claiming, however, is that the appearance of switch reference forms that refer to the 'same subject' on clauses which are followed by another clause with the same subject is epiphenomenal. Rather than monitoring same versus different subject, the relevant fact is that these two clauses share the same topic. The correspondence with the notion of 'subject' is due to the fact that, as is common cross-linguistically, the topic is frequently also the most active participant in the discourse – the argument that we might characterize as the S or the A of the clause, or alternatively the argument that is highest on a semantic roles hierarchy.[23] Importantly, the switch reference system typically monitors a category distinct to that which is marked on the verb as 'subject agreement'.

9. Other accounts of Switch reference

The major previous accounts of switch reference can be found in Finer (1985), Foley and Van Valin (1984) Foley (1985, 1986), Haiman (1987) and Haiman and Munro (1983).

Finer argues that the essential difference between same reference and different reference morphology is that the different reference morphology is essentially pronominal, whereas the same reference morphology is an anaphor. He also argues that the relation between the clauses linked by switch reference morphology is one of subordination. Counter arguments to the subordination analysis have been presented extensively in Reesink (1983) and Haiman and Munro (1983), and shall not be repeated here. Foley (1985) argues against Finer's notion of cross-clausal binding, arguing that

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[23] In the absence of a voice system, allowing for what Van Valin and LaPolla term the neutralization of semantic macro-role distinctions in transitive verbs, this is all the characterization that can ever be necessary.

Finer's failure to account for the choice of switch reference morphology that sentences with involuntary state predicates — such as those presented here in Section 5 — are found with, makes his model invalid. (The anticipatory subject marking found on different referent clauses in languages of the Goroka family, such as Fore (Scott 1978) would also be problematic for Finer's analysis.) Foley (1985): 5–6) takes the evidence of involuntary state predicates in switch reference, such as seen in (86), as evidence that 'switch reference effects may not be stated in strictly syntactic terms, but that semantic and . . . pragmatic factors may place a crucial role in its operation.'

Telefol (Healey 1966)

(86) *Tál-nal-a-ta*   *sook*   *ang-ko-ól-u.*
      come-SR-3SG.M-then   rope   wrap-finish-DR-3SG.F
      'He$_i$ came and Ø$_i$ got hanged.'

While not arguing with Foley's claim that semantic features such as volition or control of the predication and pragmatic features such as the speaker's viewpoint are crucially important in the operation of switch reference mechanisms, I suggest that a structural model is equally capable of modelling these factors. We have shown that models allocating a particular structural position to pragmatic functions such as topic and focus are completely compatible with what is known of the behaviour of New Guinea languages and do, in fact, model more accurately the behaviour of these languages in non-declarative sentences than do non-phrase structural models. Given this, the pragmatic factors that Foley describes are equally well modelled by a functionalist model or a structural model. The factors of 'volition' and 'control of the predication' that Foley refers to are reference to the involuntary state predications that have been modelled with the adjunct nominal position and so are also not a problem for the structural account. The switch reference facts such as those seen in Telefol, then, are simply modelled in a continuation of this structural account using the same mechanisms that have already been found necessary to model the clause-internal syntax.[25]

Table 9 Common patterns found conjoining 'normal' clauses and involuntary state clauses (from Reesink 1983:133)

SS only	Waskia, Kesawai[24]
SS or DS	Kewa, Erima, Usan, Barai
DS only	Alamblak,[25] Nobonob

(Various other 'anomalous' switch reference environments are identified by Reesink, and given functional explanations. These are not immediately relevant to the point being made here about the lack of grammaticalization of grammatical functions in most languages in New Guinea.)

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[24] 'Kesawai' is an earlier name for the language that Priestley refers to as Koromu.
[25] There is some doubt as to whether Alamblak has a true switch reference system (Iwamoto 1992).

Reesink notes that many languages, when joining clauses in which the first clause is a 'normal', controlled, predicate and the second one is an involuntary state predicate of the sort described in Section 5, allow a choice of either 'same subject' or 'different subject' morphology on the verb (of course, many languages allow only 'same subject', or, more rarely, only 'different subject' marking).

The account I offer of this variation is as follows: the languages that allow SS marking, just as is the case in Lani, monitor the sameness or difference of the same highest structural role in the clause. The cases where DS marking is used are those that are monitoring the sameness or difference of the same argument that is isolated on the verbal agreement system as 'subject' – that is, in these languages the notion of subject is somewhat more fully grammaticalized, appearing as it does in two separate areas of morphosyntax.[26]

10. Conclusions: discourse configurational languages, and the question of grammatical functions

We have seen that it is at best problematic to try to maintain the notion of 'subject' in the (non-Austronesian) languages of New Guinea. We have seen that a discourse-configurational approach to phrase structure accounts for a lot of the issues raised in the structure of the languages in the area concerning non-constant word-order, and also matches with what we can observe about word-order freezing effects in pragmatically marked clauses. The facts of morphological choice in switch-reference constructions are also predicted from the configurational model proposed here, especially when they concern NV complex predicates. The data presented here also indicate that, far from being impoverished in terms of phrase structure, the languages of New Guinea possess as rich a set of phrase-structure rules as configurational languages elsewhere, with the added complication that in addition to syntactic constraints there are also many pragmatic constraints on the realization of arguments with, in many cases, overt morphological consequences for the sentence. This analysis is better than simply assuming free ordering with functional principles governing the orders, such as those seen in (13).

Furthermore, it seems that to discuss the category of 'subject' as a grammaticalized notion is incorrect, and that the morphosyntactic evidence rather points to two often matching notions which are nevertheless drawn from different paradigms with separate restrictions:

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[26] The Lakes Plains languages such a Kirikiri, in which the position that is given to the structural topic has been more heavily syntacticized to the point that it no longer carries any strong pragmatic markedness (see 3.1), would be ideal on which to test out these ideas but they lack switch reference systems. It seems likely that a similar analysis of Barai to that proposed for Kirikiri might be possible, with a grammaticized 'topic' position in the left-most position, resolving many of the questions about Barai's exceptional behaviour with respect to switch reference (see Foley 1986: 192-194 for a synopsis of the Barai data).

- a purely semantic notion, the most agentive argument in the clause. This is what is sometimes referred to as the 'logical subject' or a-subject;
- a pragmatic notion, the argument that is most topical in a clause and its discourse context, regardless of the semantics of the verb

These two notions are best treated separately, following a long tradition of recognizing a split in 'subject properties' in a range of different frameworks, primarily concerned with Austronesian languages (for instance, see Falk 2000, Guilfoyle, Hung and Travis 1992, Schachter 1977). Most Papuan languages monitor the semantics, the identity of the 'logical subject' (=S,A grouping, or highest semantic role; the grouping identified is the same, even though the descriptions vary), closely on the verb, and the verbal morphology is sometimes quite explicit about its reference. Often, in a language like Lani with two agreement positions on the verb, the 'subject' agreement marking can only be used to index an agent or effector semantic role, and no other. This means that predicates which are conceptualized as being intransitive in English, such as 'be sick', must be coded in such a way as to express two arguments, so that the sickened experiencer role can be coded in the non-agent/effector slot on the verb. The effector, which is inherent in the verbal semantics in English, is coded as the putative 'subject' of the verb. This morphosyntactic strategy is further evidence that the marking characterized as 'subject' agreement is in fact more restricted in its scope, referring not to a 'full' S,A category, but only to a particular range of similar semantic roles.

The S,A grouping is not referred to in the choice of morphology for the switch reference system. While it is true that there is a strong tendency for the categories monitored by the switch reference system to match the agreement system descriptively, this is due to universalist discourse considerations that dictate that a story should consist of a number of clauses with a coreferent highly animate, and preferably agentive, argument as the protagonist. As we saw in Section 5, however, involuntary state predicates often refer to the higher animate argument separately to the (verbally encoded) 'agentive' argument, showing that in fact we are dealing with two different systems. The verbal agreement can be modelled without reference to the notion of 'subject', but rather semantics (either role identity, or more broadly role prominence), and the switch reference system can be better modelled with reference to pragmatic positions and the notion of inter-clausal topicality.[27]

What do we need to observe in order to be able to define the notion of 'subject' as a fully grammaticalized concept in a language? Van Valin and LaPolla (1997) explicitly, and much other literature on pivots and grammatical functions implicitly, suggest that what is needed is a constellation of different phenomena choosing the same restricted grouping of arguments, when there are not any logical reasons for this same grouping to be a necessary part of the description of them all. We have seen that this is not found in the Papuan languages.

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[27] The categories that they define show considerable overlap, for functional reasons, but not complete formal congruence (see Dryer 1996 for a discussion of this notion).

Previous accounts of the mismatches in morphology found in some highlands languages have focussed on the different alignments found between case marking on the one hand, and the forms of verbal marking (switch reference categories and verbal agreement) on the other. Much literature on Papuan languages asserts the nominative-accusative alignment for verbal agreement, and the presence of a usually optional ergative case on a core nominal; this is the stance taken in Li and Lang's (1979) discussion of Enga. In their discussion, switch reference is described as following the same nominative-accusative pattern that is found in the agreement system, and so the presence of this grouping confirms the irrelevance of the ergative case marking system. The issues here are three-fold, and concern the proper analysis of all three of the morphological paradigms used in Li and Lang's work. While not commenting directly on Enga, it is important to note that:

- nominative, rather than ergative, case is in fact prevalent in many highlands Trans New Guinea languages. This has been established for Fore (Donohue and Donohue 1997), and Kâte (Suter nd), and is likely to be the case for others as well;
- verbal agreement for an S,A grouping is not disputed (though see the provisos on a perhaps even more restrictive grouping earlier in this section), but there is considerable evidence that in languages such as Alamblak that are peripheral to the highlands, we can see a verbal agreement system that marks, in addition to the S,A grouping, one other pragmatically salient argument. Importantly, this non-S,A argument is not restricted to being the P of a transitive clause;
- the switch reference systems resembles a nominative-accusative split only when examined in its most proto-typical cases. By examining certain non-canonical clause types, such as the involuntary state predicates described in Section 5, and pragmatically marked conjunction,[28] we can see that a better characterization of the switch reference system in at least some languages is as a monitor of pragmatic functions, which are structurally encoded.

Clearly we do not find a constellation of syntactic phenomena each choosing the same grouping as its privileged argument and so lack any reason to postulate a notion of 'subject'.

The existence of languages lacking separate grammaticalized functions has been equally well-documented in the linguistics literature over the last couple of decades – see, for instance, Van Valin (1981) for discussion of Archi, Manning's discussion of Lezgian (1994), based on Haspelmath 1993), and the work of Gil (1999) on Riau Indonesia. The suggestion here is that many Papuan languages fall into this category: there are certainly restrictions on which arguments may participate in certain constructions, both morphological and syntactic, but it is not obvious that there are any configurations of arguments that cannot be accounted for by universal tendencies

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[28] See Comrie (1988) for a discussion of the need to address pragmatically unusual or unlikely conjuncts as well as topically expected ones.

in terms of pragmatic structure and argument structure configurations of semantic roles, and reference to some universally relevant constructional pivots.

References

Aissen JL 1992 *'Topic and focus in Mayan' Language* 68(1): 43–80.

Andrews A 1985 'The major functions of the noun phrase' in T Shopen (ed.) *Language Typology and syntactic description: Volume I, clause structure* Cambridge University Press: 62–154.

Barclay P nd (±1990) *Western Dani Dictionary* RBMU Bokondini.

Bresnan J 2001 *Lexical Functional Syntax* Blackwells Oxford.

Bromley HM 1961 *The phonology of Lower Grand Valley Dani: a comparative structural study of skewed phonemic patterns*. Verhandelingen van het Koninklijk Instituut voor Taal-, Land- en Volkenkunde. Martinus Nijhoff Den Haag.

Bromley HM 1981 *A Grammar of Lower Grand Valley Dani* Pacific Linguistics C-63 Canberra.

Brown L 1997 'Nominal mutation in Nias' in C Odé & W Stokhof (eds) *Proceedings of the Seventh International Conference on Austronesian Linguistics* (Editions) Rodopi B. V Amsterdam: 395–413.

Bruce L 1984 *The Alamblak language of Papua New Guinea (East Sepik)* Pacific Linguistics C-81 Canberra.

Butt M 1995 *The structure of complex predicates in Urdu* CSLI Publications Stanford.

Butt M and Lahiri A nd ±2000 *Historical stability vs. historical change*. Unpublished thesis, University of Konstanz.

Chafe W 1980 'The deployment of consciousness in the production of a narrative' in W Chafe (ed.) *The Pear Stories* Ablex New York: 9–50.

Choi H-W 1999 *Optimizing structure in context: scrambling and information structure* CSLI Publications Stanford.

Comrie B 1978 'Ergativity' in WP Lehmann (ed.) *Syntactic typology: studies in the phenomenology of language* The Harvester Press Sussex: 329–394.

Comrie B 1988 'Coreference and conjunction reduction in grammar and discourse' in JA Hawkins (ed.) *Explaining language universals* Blackwells Oxford: 186–208.

Crowther M 1999 *Subject and object verbal morphology in Lani*. Unpublished thesis, University of Sydney.

Davies HJ 1981 *Kobon*. Lingua descriptiva series No. 3. Croom Helm London.

Davies HJ 1985 *Kobon syntax* PhD thesis, University of Cambridge.

Dommel PR & GE 1991 'Kaure Phonology' in M Hartzler & L Wood (eds) *Workpapers in Indonesian languages and Cultures 9* Summer Institute of Linguistics Jayapura: 1–68.

Donohue M 1997 *Incorporation?* Talk given at McGill University, Montréal, Québec, 6 November 1997.

Donohue M 1998 *Incorporation alternatives*. Talk given at the University of Auckland, New Zealand, 14 September 1998.

Donohue M 1999 *A Grammar of Tukang Besi* Grammar Library series No. 20 Mouton de Gruyter Berlin.

Donohue C & M Donohue 1997 *'Fore case marking' Language and Linguistics in Melanesia* 28(1&2): 69–98.

Dryer MS 1996 *Grammatical Relations in Ktunaxa (Kutenai)*. The Belcourt Lecture delivered before the University of Manitoba on 24 February 1995. *Voices of Rupert's Land*. Winnipeg, Canada.

Falk Y 2000 'Pivots and the theory of grammatical functions' in M Butt & T Holloway King (eds) *Proceedings of the LFG00 conference, University of California at Berkeley* CSLI Publications Stanford: 123–139.

Finer DL 1985 *'The syntax of switch-reference' Linguistic Inquiry* 16(1): 35–55.

Foley WA 1985 *Anaphor and switch reference*. Paper presented to the Linguistics Society of America, 1985.

Foley WA 1986 *The Papuan languages of New Guinea* Cambridge University Press Cambridge.

Foley WA 1996 *Papuan languages* Notes from the Australian Linguistics Institute, Canberra.

Foley WA 1999 'Grammatical relations information structure and constituency in Watam' *Oceanic Linguistics* 38(1): 115–138.

Foley WA & RD Van Valin 1984 *Functional Syntax and Universal Grammar* Cambridge University Press Cambridge.

Gil D 1999 'Riau Indonesian as a Pivotless Language' in EV Rakhilina & YG Testelets (eds) *Tipologija i Teorija Jazyka, ot opisanija k objasneniju, k 60-letiju Aleksandra Evgen'evicha Kibrika (Typology and Linguistic Theory, from description to explanation, for the 60th birthday of Aleksandr E. Kibrik)* Jazyki Russkoj Kul'tury Moscow: 187–211.

Guilfoyle E, H Hung & L Travis 1992 'Spec of IP and Spec of VP: two subjects in Austronesian languages' *Natural Language and Linguistic Theory* 10: 374–414.

Haiman J 1987 'On some origins of medial verb morphology in Papuan languages' *Studies in Language* 11(2): 347–364.

Haiman J and Munro P (eds) 1983 *Switch reference and universal grammar* John Benjamins Amsterdam.

Haspelmath M 1993 *A grammar of Lezgian* Mouton de Gruyter Berlin.

Holloway King T 1995 *Configuring Topic and Focus in Russian* CSLI Publications Stanford.

Horvath J 1986 *Focus in the theory of grammar and the syntax of Hungarian* Foris Dordrecht.

Horvath J 1997 'The status of 'wh-expletives' and the partial wh-movement construction of Hungarian' *Natural Language and Linguistic Theory* 15: 509–572.

Iwamoto E 1992 *Visibility and argument identification: a conceptual semantic approach to Alamblak and Japanese*. PhD thesis, Australian National University.

Jelinek E & RA Demers 1994 'Predicates and pronominal arguments in Straits Salish' *Language* 70(4): 697–736.

Kiss KÉ 1994 'Sentence structure and word order' in F Kiefer & KÉ Kiss (eds) *Syntax and Semantics 27: The syntactic structure of Hungarian* Academic Press New York: 1–90.

Lambrecht K 1994 *Information structure and sentence form: topic, focus, and the mental representation of discourse referents* Cambridge University Press Cambridge.

Li CN & R Lang 1979 'The syntactic irrelevance of an ergative case in Enga and other Papuan languages' in F Plank (ed.) *Ergativity: towards a theory of grammatical relations* Academic Press London: 307–345.

Macdonald L 1990 A grammer of Tauya Mouton de Gruyter Bemin.

Manning C 1994 *Ergativity: Argument Structure and Grammatical Relations*. Doctoral dissertation, Stanford University.

Marantz A 1984 *On the nature of Grammatical Relations*. Linguistic Inquiry Monograph 10 MIT Press Cambridge.

Margetts A 1999 *Valence and transitivity in Saliba, an Oceanic language of Papua New Guinea*. PhD thesis, Katholieke Universiteit Nijmegen. MPI series in Psycholinguistics 12.

Massam D 2001 Pseudo noun incorporation in Niuean *Natural Language and Linguistic Theory* 19: 153–197.

Mohanan KP 1982 'Grammatical relations in Malayalam' in J Bresnan (ed.) *The mental representation of grammatical relations* MIT Press Cambridge.

Mohanan T 1994 'Case OCP: a constraint on word order in Hindi' in M Butt, T Holloway King & G Ramchand (eds) *Theoretical perspectives on word order in South Asian languages* CSLI Publications Stanford: 185–216.

Mohanan T 1995 'Wordhood and lexicality: noun incorporation in Hindi' *Natural Language and Linguistic Theory* 13(1): 75–134.

Mohanan T 1997 'Multidimensionality of representation: NV complex predicates in Hindi' in A Alsina, J Bresnan & P Sells (eds) *Complex predicates* CSLI Publications Stanford: 431–471.

Pawley AK 1966 *The structure of Kalam: a grammar of a New Guinea Highlands language*. PhD thesis, University of Auckland.

Pesetsky D 1987 'Wh-in-Situ: Movement and Unselective Binding' in E Reuland & A ter Meulen (eds) *The Representation of (In)definiteness* MIT Press Cambridge: 98–129.

Priestley C 2001 *The morphosyntax of verbs in Koromu*. MA Thesis, Department of Linguistics (faculties), Australian National University.

Purba T & Budi R 1995 *Formations of Western Dani verbs*. Paper presented at the International conference on New Guinea language and linguistics, Cenderawasih University. Jayapura, Irian Jaya.

Purba T, Paldi Y, Fakihuddin L & Setiawati E 1997 *Sintaksis Bahasa Dani Barat* Pusat Pembinaan dan Pengembangan Bahasa Jakarta.

Reesink G 1983 'Switch reference and topicality hierarchies' *Studies in Language* 7(2): 215–246.

Ross MD 1980 Some elements of Vanimo, a New Guinea tone language. *Papers in New Guinea linguistics* No. 20 Pacific Linguistics A-56 Canberra: 77–109.

Schachter P 1977 'Reference-related and role-related properties of subjects' in P Cole & JM. Sadock (eds) *Syntax and Semantics 8: Grammatical Relations* Academic Press New York: 279–305.

Scott G 1973 *Higher levels of Fore grammar* Pacific Linguistics B-23 Canberra.

Scott G 1978 *The Fore language of Papua New Guinea* Pacific Linguistics B-47 Canberra.

Scott G 1986 'On ergativity in Fore and other Papuan languages' in DC Laycock et al *Papers in New Guinea Linguistics No. 24* Pacific Linguistics A-70 Canberra: 167–175.

Suter E nd ($\pm$1995) *Syntax and analysis of the Kâte language, Morobe province, Papua New Guinea*. PhD thesis in progress, Australian National University.

Van Valin RD 1981 'Grammatical relations in ergative languages' *Studies in Language :* 5: 361–395.

Van Valin RD & RJ LaPolla 1997 *Syntax: structure, meaning and function* Cambridge University Press Cambridge.

Vijayakrishnan KG 1994 'Compound typology in Tamil' in M Butt, T Holloway King & G Ramchand (eds) *Theoretical perspectives on word order in South Asian languages* CSLI Publications Stanford: 263–278.

Wade M 1997 'Switch reference and control in Apalɨ' *Language and linguistics in Melanesia* 28(1–2): 1–16.

Wunderlich D & R Lakämper 2001 'On the interaction of structural and semantic case' *Lingua* 111: 377–418.

Yokoyama OT 1986 *Discourse and Word Order* John Benjamins Amsterdam.