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Arawakan (Brazil) Morphosyntax

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ARAWAKAN (BRAZIL) MORPHOSYNTAX

Desmond C. Derbyshire

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0. Introduction

The purpose of this study is to present some of the major morphosyntactic characteristics of eight Arawakan languages spoken in Brazil. All eight languages have been subjected to intensive study by members of the Summer Institute of Linguistics during the past twenty years. Papers have been published on specific aspects of each language, mainly in Portuguese versions that have appeared in *Série Lingüística* (SIL, Brazil) and other Brazilian publications. So far as I know, however, no major syntactic description has yet appeared for any one of the languages, and no cross-linguistic study of the morphology and syntax of Brazilian Arawakan languages has been previously attempted. The present study is only possible because of the fairly large amount of unpublished material made available to me from the SIL archives in Brasília, and through personal communications received from individual SIL fieldworkers. A list of all the relevant papers, published and unpublished, is given in the Bibliography at the end, and I will not repeat each individual's name here. I acknowledge my thanks to all of them, and trust that I have not seriously misrepresented their analyses, descriptions, and data.

The five areas of morphosyntax which are treated in turn in the following sections are: word order, case marking, verb morphology, coordination, and subordination. As will be seen in section 3, much of the morphosyntactic complexity of these languages is found in the verb, and certain phenomena that in other languages would be dealt with in other parts of the syntax are treated in that section, including: valence-changing devices such as causatives, passives and reflexives; negation; and gender agreement; for each of these, the discussion is extended to cover related aspects of the syntax, wherever the sources provide material for this. The sources vary considerably in the topics they cover and in the detail they provide on any particular topic, and it needs to be emphasized that, for any language, absence of a statement pertaining to a category or characteristic found in some of the other languages is no guarantee that it does not also occur in that language. This serves to show how incomplete this study is, even in the five selected areas, and I hope it will also serve to challenge my colleagues, who have the specialist knowledge in these languages, to publish more adequate descriptions than I am providing here. One other deficiency in my presentation that will no doubt irk some readers is that I have not attempted to harmonize the orthographic representations, but have presented the data as I found them in the sources (some of the sources contain footnote summaries of the basic phonology that underlies the orthographic symbols used).

The eight languages are: Apurinã (A), Dení (D), Jamamadí (J), Palikur (PL), Parecis (PR), Paumarí (PM), Terêna (T), and Waurá (W). In section 6, I will discuss their relationships to each other in a little more detail, based on the evidence of this study. Here, I simply present the sub-groupings within the family, following Voegelin & Voegelin (1977), and include also, in parentheses, the Arawakan languages of Peru, but following in this case the classification of Wise (forthcoming), since I make frequent reference to that work in this study:

Andean-Equatorial (phylum): Equatorial (stock): Arawakan (family):
 Arauan: Dení, Jamamadí, Paumarí, (Culina)
 Maipuran:
 Southern: Terêna
 Eastern: Palikur, Waurá
 Paressi-Saraveca: Parecis
 Pre-Andine: (1) (Amuesha)
 (2) Apurinã, (Piro)
 (3) (Campa: Ashaninca, Asheninca, Caquinte, Machiguenga,
 Nomatsiguenga, Pajonal Campa)

Some other facts concerning locations and populations of the groups who speak the eight Brazilian languages are:
 Apurinã (Ipurinã): about 1000, scattered along 1500 kilometers of the river Purus in the state of Amazonas;
 Dení: 250-300, northeast of the river Cunhuá, between the rivers Purus and Juruá, state of Amazonas;
 Jamamadí: about 100 located above the town of Lábrea, and an unknown number along the river Purus, state of Amazonas;
 Palikur: about 600, on the river Urucaúá, Territory of Amapá, and on the Oiapoque river in French Guiana; about 20% bilingual in French Creole, and about 5% bilingual in Portuguese;
 Parecis: about 450, on a reserve in the state of Mato Grosso, on the plateau that divides the Amazon and Paraguay river basins;
 Paumarí: about 400, semi-nomadic, in the Purus and Tapauá river basins, state of Amazonas; fairly bilingual in Portuguese;
 Terêna: about 12,000, in the southeast of the state of Mato Grosso, principally in the towns of Aquidauana and Miranda, and a small number at the Araribá Post in the state of São Paulo;
 Waurá: about 100, mostly monolingual, in a village on one of the tributaries of the river Batovi, in the Parque Nacional de Xingú, state of Mato Grosso.

In Derbyshire (1979b:197) with respect to languages of the Amazon area, I drew attention to the urgent need for research in two directions: synchronic description; and historical and comparative studies. I submit this study as a small contribution relating to one language family in that Amazon area. In a concluding section (6), I summarize the evidence it affords toward a better understanding of (i) sub-groupings within the Arawakan family; (ii) the direction of diachronic change in word order in Arawakan; and (iii) cross-genetic areal characteristics of Amazon languages.

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1. Word order. The study of the eight Brazilian languages in the subsections that follow reveals that in transitive clauses four of the six logically possible orders are found as the basic pattern: SVO: Palikur, Paumarí, Waurá, Parecis (?); SOV: Dení, Parecis (?); OSV: Apurinã, Jamamadí; and VOS: Terêna. It is of interest, in the light of recent discussion (Pullum, 1981), that in three of the languages the object precedes the subject.

One other word order type, VSO, is found in Arawakan languages of Peru, in Amuesha and the Campa languages. The only other type reported from Peru is SOV, which is the basic pattern in Piro and Culina, the latter being geographically close to, and mutually intelligible with, Dení. The SVO order, however, is common as an alternative order in both SOV and VSO languages in Peru (Wise, forthcoming, 32-33). The Bolivian Arawakan language Baure is reported to be VOS, like Terêna, to which it is relatively close geographically (Keenan (1978.284-85) tentatively considers it VOS; cf. Baptista & Wallin (1967.33-41) for clause formulae and data which generally support a VOS basic order; Pickering considers Baure to be a close relative of Apurinã - see 6.1).

This leaves only OVS that is not claimed as the basic order for any Arawakan language. Paumarí would have to be considered OVS if one possible analysis of the case markers were accepted, but I believe the other interpretation is to be preferred, and this leaves SVO as the basic order (see 2.2). This agrees with Chapman's analytical and intuitive understanding of the language, in which she has considerable experience.

In intransitive clauses the most common order is SV, but there are three languages where VS is found as a basic order: Terêna and Paumarí, in both of which it applies to all intransitives; and Waurá, in which it applies to one of the two major classes of intransitive, that in which the semantics of the verb does not call for volitionality or control on the part of the subject, and where the subject has more of a passive or "absolute" role. In Paumarí it is, along with the O of SVO, in the absolute case, so it is actually in harmony with that transitive word order. Wise (forthcoming, 39) refers to "absolute clauses" in the Campa languages in relation to a set of intransitive clauses in which the VS order is more rigid than in non-absolute clauses.

Any statement about word order in Arawakan languages needs to emphasize the fact that in many types of discourse most clauses do not have subject and object noun phrases. In all the languages discussed in this paper, the person and number of the subject is indicated by a verb affix, and in most of them there is also some way of signalling the object (i.e. its person, number, or

gender) in the verb affix system. Wise (forthcoming, 33) notes the same characteristic of Peruvian Arawakan languages:

In all of the languages, however, occurrences of two or more noun phrases in a single clause are fairly infrequent in oral discourse. Swift ... noted that in 112 lines of Caquinte text there is a noun or free pronoun subject in only thirteen clauses ... much of what would normally be included under syntax has already been discussed in the morphology section, since a single verb often has as much information as would be encoded by a fairly long sentence in some languages.

The strongly verbal nature of clauses is more generally true of languages in the Amazon area, irrespective of genetic divisions. It is a significant feature of Carib (Derbyshire, 1979a.85) and Tupi-Guaraní (Harrison, forthcoming) languages. It is so prevalent in Yagua (an isolate in northeastern Peru) that Doris Payne (p.c.) has suggested the possibility of a new word order type: V-only, for Yagua and possibly other languages (see s.1.6 for Chapman's "V-clause" type in Paumarí).

Notwithstanding the variety of word order types, including a more or less equal number of VO and OV languages, the ordering patterns relative to noun and adpositional phrases are remarkably alike in seven of the eight languages: Postp, Gen-N, N-Adj. These orders are consistent with OV, rather than VO, and this is one argument for regarding SOV as the likely basic order in Proto-Arawakan (see s.6). Terêna is the one exception, and this shows patterns that are generally consistent with its verb-initial character: Prep, N-Gen, N-RelCl. The Adj-N order in Terêna may be considered inconsistent, but it is not so inconsistent when it is looked at in the context of Amazon area languages, which are usually OV and N-Adj. Although N-Adj is not regarded by some as consistent with OV (e.g. Lehmann, 1978.19-20), it is, in fact, found in a substantial number of languages outside of South America - see, for example, Greenberg's (1966) Group 24: OV, Postp, GN, NA - the Basque type. It appears to be even more prevalent in South America, being a central feature of a proposed "Central Brazil" type, which is also distinguished by "ergatively organized verb prefixes and no case marking" and which is associated primarily with Gê and Tupi-Guaraní languages (Harrison, forthcoming). Elsewhere I have noted the same four ordering patterns as characteristic of an "Amazon area" type, referring primarily to Carib, but including also some non-Carib, languages (Derbyshire, 1979b.194-196). The evidence from Arawakan languages (including those in Peru, (Wise...35)) supports a view that N-Adj is just as consistent with OV as is Adj-N, and that it is probably to be associated more with languages that have a complex verb morphology which includes subject and object markers.

1.1. Apurinã. The facts are based on two papers by Pickering (1973a, 1973b) and have already been reported (Derbyshire & Pullum 1981, where the sources are mistakenly referred to as Pickering 1974a, 1974b; cf. Mallinson & Blake 1981). Some further evidence from another unpublished paper by Pickering (undated) is

included here for the first time. This contains a statement indicating the highly verbal nature of Apurinã sentences (15):

Most sentences are simple, containing few words - often only one, the predicate.

Where noun phrases occur, the normal order of nuclear clause constituents is shown in chart form as: (Object) - Subject - Verb for transitive and intransitive clauses (10); other orders which occur in transitive clauses are OVS, SVO, and VOS; marginal constituents, consisting of adverbial and postpositional phrases, "tend to occur before the Subject" (12).

The evidence showing OSV to be the basic order is given in Pickering (1973b.3-5) and may be summarized as follows: if both S and O nominals either precede or follow V, their order must be (*SOV, *VSO); cross-referencing affixes in the verb agree with S and O, but they occur only when the order is something other than OSV (the affixes also occur in the absence of S and O nominals), so that this is the order which is least marked morphologically; the obligatory order for ditransitive sentences is OSV-o, where O is a nominal representing the direct object, and -o is a verbal suffix referring to the indirect object, which is also optionally represented by a noun phrase which follows the verb; the subject, in some form, "almost invariably precedes V". Pickering concludes: "Both motivation and evidence point to OSV (as the basic order)".

Data in support of the above statements are taken from the 1973a and 1973b papers:

- (1) anana nota apa (OSV)
pineapple I fetch
- (2) anana n-apa (O s-V)
pineapple I-fetch
- (3) anana n-apa nota (O s-V S)
pineapple I-fetch I
- (4) nota apa- ry anana (S V-o O)
I fetch-it pineapple
- (5) n-apa- ry anana (s-V-o O)
- (6) n-apa-ry anana nota (s-V-o O S)
- (7) anana nota syka-i (pite) (O S V-io IO)
give-you (you)

With regard to constituent ordering in constructions other than the clause, Pickering specifically reports postpositions (undated, 12) and "an inflected auxiliary (my 'dummy' verb) [which] always follows the main verb" (1973b.2). He is less clear on the ordering of noun phrase constituents. He distinguishes a genitive construction (8) from another type of noun modification (9) (undated, 12):

- (8) *ɪmata ãkiti*
 skin jaguar *'the jaguar's skin'*
- (9) *ãkiti mata* *'a jaguar skin'*

He does not give a morpheme breakdown for these examples, but there is evidence elsewhere in the paper suggesting that in (8) the *ɪ* of *ɪmata* is a prefix meaning '3SG.MASC.', so that the more precise glossing would be 'its skin jaguar'. By analogy with what happens in clauses with respect to free forms and bound forms, a plausible hypothesis would be that (9) represents the more basic ordering in genitive constructions, i.e. Gen-N, in which case the prefix does not occur; the alternative ordering N-Gen (8) requires the noun to have a possessor prefix.

Pickering (1977a) states that relative clauses are always nominalized clauses, and they always appear to follow the noun phrase which they modify, although they are not necessarily contiguous to it:

- (10) *kyky, ma- ereka-ty, apopeka*
 man, NEG-good -NOMLZR, arrive-PERF
'The man who is bad has arrived'

- (11) *kyky apopeka, ma-ereka-ty*

Modifying adjectives in noun phrases, however, may occur before or after the noun head (1977a.139-140):

- (12) *kyky ma-ereka-ty apopeka (or) ma-ereka-ty kyky apopeka*
'A/the bad man has arrived'

These adjectives are also nominalized forms, the only difference from their function as relative clauses being the absence of the phonological break, signalled by the comma in exs. (10) and (11). Adjective stems also function as verbal predicates. There is also a small set of noun suffixes with the adjectival modifying meaning.

Apurinã thus has patterns which are consistent with its basic O ... V ordering in the clause: Postp, V-Aux, Gen-N, A-N/N-A. (See introduction to s.1 for N and A ordering.)

1.2. Dení. The evidence is found in papers by Gordon and Lois Koop. The introduction to G. Koop (1980) indicates the strongly verbal character of Dení sentences: "A huge chunk of Dení communication is included in the verb complex" (1), and examples show that many sentences do not have S and O nominals. None of the papers specifically discuss word order, but they contain a considerable amount of data which show that in those sentences where S and O nominals do occur, Dení is strongly SOV (transitive sentences) and SV (intransitive sentences). Some examples are:

- (13) u-kharipene Hataruni aba mavavi khazama-ru
 1-younger sister Hataruni fish (species) cook- NONFOC, FEM.
'My younger sister Hataruni cooked "mavavi" fish' (LK 1980.12)
- (14) Vaha-'a u Shunavi Aburu na- zukhe-ta'u
 Vaha-FOC oh no Shunavi Aburu CAUS-kill- CONTRA-DESIDERATIVE
'Vaha said, "Oh no, Shunavi has caused Aburu to be killed"' (GK 1980.63)
- (15) ukha da'u pu- riza-ri
 1 son lie down-upon-NONFOC, MASC.
'My son is lying down' (LK 1980.10)
- (16) Timazuri ide tei- kana-bakhiza-za ...
 Timazuri back shoot-INCL-upright-SEQUENTIAL ...
'When (i.e. after) Timazuri shot him in the back ...'

The SOV order appears to be normal in both main (13) and subordinate (16) clauses. The closely related Culina language in Peru is also reported to have SOV and SV basic orders (Patsy Adams, p.c.).

The only other order that is common is OSV, but in all the examples of that order S is always mede 'they':

- (17) niza u-mahubishari mede hishi-tu- na- 'a
 later 1-scent they smell-STATE-VbCLASS-VbMGN
'Later they smelled my scent' (GF 1977.46)

I have not noted any exceptions to the SV order in intransitive sentences, nor any examples of transitive sentences where S follows V, and cases where O follows V (VO, SVO) are rare.

The strongly preferred position for peripheral clause constituents, such as time and location phrases, is clause-initial (GK 1977).

Constituent orders found in other constructions are consistent with the OV order in clauses: Postp and Gen-N:

- (18) Taiza uni'i; Zuazi-kha uza
 Taiza sister Jorge-poss. house
 '*Taiza's sister*' '*Jorge's house*' (LK 1980.16,21)

- (19) uza- za; Zatina-mani
 house-by Zatina-with
 '*by the house*' '*with Zatina*' (GK 1977.18,29)

Adjectives follow the noun they modify:

- (20) adami ime'eni; isha'isha bedi
 hill big arrow small
 '*big hill*' '*small arrow*' (LK 1980.16-17)

There is what appears to be a finite auxiliary verb (called "dummy verb" in GK 1976.10,26), and it always follows the main verb. It has the forms na-/ni-, which are homophonous with a main verb meaning 'say' or 'do' (cf. GK 1977.34). In some occurrences, G. Koop analyzes these forms as suffixes of the main verb, glossing them as 'verb class' markers (GK 1976.3), but in view of the fact that they are immediately preceded by the person marker and take normal verb endings, I re-analyze them here as finite auxiliaries, preceded by a nonfinite form of the main verb (GK 1980.101, re-glossed):

- (21) zama phiri-zape bani tei 'u-na- phiri-zape zei 'u-ni- meri
 thing NEG- COND game shoot 1- AUX-NEG- COND run 1- AUX-downstream
 mita- tivaha
 ITERATIVE-INTENTION

'If there is nothing, if I do not shoot any game, I will run back downstream'

1.3. Jamamadí. R. Campbell (1977b.8) gives a concise statement of word order patterns in transitive clauses:

The normal order is OSV, but the subject can be made the topic of the paragraph by changing the word order to SOV. This can only be done when both the subject and the object are nouns. When either one or both are pronouns the order is fixed and cannot be changed. When either one is a noun and the other a pronoun the order is noun-pronoun-verb regardless of which is noun and which is pronoun. When both are pronouns the order is OSV and cannot be changed.

The same paper provides examples illustrating most of the above facts (22-25); ex. (26), where both S and O are free pronouns, is from B. Campbell (1973.10).

- (22) badi-ra yome na- boe-nao- ra
 son- OBJ dog CAUS-die-VERIFIED,MASC-PERSPECTIVE
 '(Their) dog bit his son' (p.15-16)
- (23) di Yowaho bani me- ra amo- ni- mata- maka
 the João animal PLUR-OBJ sleep-STEM CLOSURE-SUPPOSITION-PERSPECTIVE
 'John put the wild pigs to sleep' (p.5; di Yowaho is newly introduced paragraph topic)
- (24) wafa me ati oda mita-maros- m
 monkey PLUR voice we hear-EYEWITNESS-PERSPECTIVE
 'We heard the monkeys' (p.8)
- (25) yome oda-ra kiyoa- maro- ni
 jaguar us-OBJ follow-EYEWITNESS-COMMENT
 'The jaguar followed us' (p.1-2)
- (26) oda me saka- na- waha- maro- a
 us they shoot-STEM CL-first-EYEWITNESS-PERSPECTIVE
 'They shot us first'

Subject frequently occurs only as a pronominal verbal affix, when the order is O s-V. The paper provides one example of a post-verbal subject in what is

elsewhere (R. Campbell 1969.1-2) described as an "explanation slot", giving the order OVS:

- (27) oda-ra waka- na- ne- mete yomahi
us- OBJ break-STEM CLOS-SUBJUNCTIVE-SUPPOSITION jaguar

'The jaguar would have eaten us' (p.1)

The different morphological form of yomahi 'jaguar' (cf. yome in (25) above), and also the discourse context in which this sentence occurs, support the conclusion that the final subject constituent is highly marked as some kind of 'afterthought' (and probably phonologically dislocated) element. (R.Campbell 1977b.17 notes that some nouns have two forms, one of which is -hV final; this only occurs when the noun is in isolation or in sentence-final position). Except where this clarification position occurs, the language seems to be strictly verb-final. Quotative sentences are also OSV (RC, 1969.6):

- (28) yoi tao- ti- ka- na- hi Bendito ati- ne- mari-m
monkey shoot-you-INSTR-STEM CLOS- THEME Bendito say- STEM CLOS-TIME-THEME

'Bendito said, "Go shoot a monkey"'

The order in intransitive clauses is SV. Oblique objects, such as time and locative phrases, usually occur before O and S (RC, 1966.5).

There are few examples of subordinate clauses, but in the only case where both S and O are noun phrases, the order is OSV (RC, 1977b.3):

- (29) kabikana ra di Nene haa- ne- mona kabikana hina-kaso
fish hook OBJ the Nene call for-STEM CLOS-REPORTED fish hook his- aunt
kanika-bone- in, Bowatimaha
buy- PURPOSE-COMMENT, Bowatimaha

'Nene asked his aunt to get him some fish hooks'

Constituent orders found in other constructions are consistent with the O ... V order in clauses: Postp, Gen-N, and, in line with most other Arawakan languages, N-A :

- (30) yima kote- ya
knife short-INSTR *'with a short knife'* (RC, 1969.7-8)

- (31) wafa yoto
 monkey intestines 'monkey's intestines' (BC, 1973.29)

1.4. Palikur. Basic word orders are: intransitive SV and transitive SVO (H & D Green, 1972.3-6):

- (32) ne yit sirise
 that deer ran 'That deer ran'
- (33) ir ax im
 he eats fish 'He eats fish'
- (34) João iké ri- t paho mahk
 John gave him-to one mango 'John gave him one mango'
- (35) Pol sakah-kis im ta-ru-t Ap
 Paul cook- CAUS fish her- by Ap 'Paul caused Ap to cook the fish'

The same SVO order occurs in quotative sentences, with the direct speech functioning as the complement of the main verb; (36) is from Wise & Green (1971.261):

- (36) ir awna kumpera yit ba pi ay
 he said co-father deer Q-PART you here
 'He said, "Co-father deer, are you here?"'

The same basic order of subject-predicate occurs in non-verbal clauses, where the predicate is an adjective phrase, a noun phrase, or a prepositional phrase. Peripheral constituents normally follow the object, but time phrases may precede the subject or verb; the indirect object may precede or follow the object (7-8).

Constituents other than subject may be placed sentence-initial for emphasis; this includes the verb when the sentence is in response to a question (38):

- (37) datka ir ax
 water snake he eats 'He eats water snakes'
- (38) danuh ir
 arrived he 'He arrived' (in answer to: 'Did he arrive?') (p.20).

(47) ner ku- pagiye kehne inin hawkitnene ka- hiyerima
 that one EMB.CLITIC-who does this evil NEG-person
'That one who does this evil is not a person'

(48) nepnik kawokwine pi- umepten
 come jaguar you-one who kills
'A jaguar who will be your killer is coming' (Wise & Green, 1971.274)

The adjective sometimes occurs before the head noun:

(49) ner kibeyne awayr
 that one good man *'That one is a good man'*

Quantifiers precede the noun, and demonstratives precede both quantifier and noun (see inin 'this' in (47)), or may occur as head of the noun phrase (see ner 'that one' in (47)).

In genitive constructions the order is Gen-N; N is a possessed noun having a possessor prefix:

(50) Wagamwi r- ahina
 Wagamwi his-path *'Wagamwi's path'* (H & D Green, 1972.26)

Palikur is thus VO in clauses, but other basic orders are the same as in OV Arawakan languages: Postp, Gen-N, and N-A. There is, however, evidence of a transition to patterns that are more consistent with VO, noticeably the common occurrence of adposition followed by noun. In the South American context, and especially in view of the noun phrase pattern in more rigidly VO Terêna, the occurrence of adjective before the noun in some noun phrases may also signal this transition.

1.5. Parecis. In transitive clauses, the orders SOV and SVO appear to be almost equally preferred (Rowan & Burgess, 1979.34-45). In an earlier paper it is stated that OV is more frequent than VO "by about a 3-2 ratio" (Rowan, 1966.16). Where the object is a free pronoun, however, it follows the verb (Rowan and Burgess, 1979.44-45; Rowan, 1966.16); from the examples, this seems to apply only to first and second person pronouns, third person object being a verb suffix. Examples are from Rowan and Burgess (1979):

(51) baba olo axikaheta haisani- ana
 father money he-sends his child-to
'Father sends money to his son'

- (52) Tiwaxalo tyolohe tyomita
 Tiwaxalo she-makes flour
'Tiwaxalo is making flour'
- (53) kawalo-kakoa Rabio ahalakoatya natyo
 horse- with Rabio he meet me
'Rabio met me with the horse'

In quotative sentences, where the direct speech functions as the object, OVS is by far the most common order; this applies to both direct quotation (54) and indirect quotation (55) (Rowan & Burgess, 1979.36-37):

- (54) alitehena xiso, xahahena, nexa ihiye toto Majiye
 here you , you work, he said to them Dr. Maciel
'"You stay here and work," Dr. Maciel said to them'

- (55) wakolatene aoka
 we took it he says
'He says we took it'

All orders, other than VS0, are said to occur (Rowan, 1966.16). When OSV occurs, it seems from the examples that the O is fronted for highlighting; in (56) this is suggested by the presence of the modifier taita.

- (56) kawalo taita Carlo iya
 horse only Carlos he-buy
'Carlos bought only a horse'

I have not seen examples of VOS discussed in the paper, but there is an occurrence in the texts (Rowan & Burgess, 1979.110-132); S is a complex paratactic construction, and O is a free pronoun (and therefore obligatorily postverbal - see above):

- (57) i- hola- tya wiso koloho Ø- waikate, Generoxa
 3S-rail at-VERIF. us forest 4S-owner, Generoso
'The forest owner Generoso railed at us' (p. 110)

There is very little discussion of subordinate clauses, and the only evidence of constituent order in such clauses comes from scattered examples of "embedded", "temporalized" and "locativized" clauses in Rowan & Burgess. These show that not more than one noun phrase normally occurs in subordinate clauses, that it may be either subject or object, and that it usually precedes the verb; in (61) it follows the verb and is the object:

- (58) awa-atyo, sekore haliti kaokehena, bala hisa
 don't, far people they arrive, bullets you give
 'When people from far away arrive, don't give them bullets' (p.26)
- (59) ekoiya atyo caminhão iyare, kalikini-ya atyo Habo wabajiyaita
 CONTRAFACT THEME truck he buy, today-COND THEME Habo we drive by
 'If he had bought a truck, today we would have driven to Habo' (p.29)
- (60) xotyare wiyaitere nali
 deer our seeing there
 'There where we saw the deer'
- (61) alabaxola, mayaseta alabaxola, kanakaira aokowita
 rapadura, he likes rapadura, he eats he wants
 'He wants to eat 'rapadura', which he likes'

The evidence is somewhat contradictory for the order in which peripheral clause constituents occur. Statements and examples agree about indirect objects and benefactives, which follow the verb. It is stated that 'Accessory' and 'Instrument' phrases also more often follow the verb, but in the examples these, along with time, location and manner phrases, usually precede the verb and often occur clause-initial (R&B, 1979.45-47).

A verb prefix marks the person of the subject, and a suffix signals third person object. The texts show that many clauses do not have subject and object nominals:

- (62) kalikini notene
 today I-remember-him *'I remember him today'*
- (63) xi-xak- en- ite hoka xi-meho xi-tyote-hena-ite Ø- nexa
 2P-shoot-OBJ-FUT then 2P-wipe out 2P-all- PROG-FUT 3S-say
 '"If you shoot him, you will all be wiped out," he said'

In intransitive clauses the usual order is SV, though VS sometimes occurs:

- (64) Maixai halaisoahena
 Maixai he-jumped-up *'Maixai jumped up'*
- (65) balaxoko hoka
 bottle it-broke *'The bottle broke'*
- (66) mairita kawalo
 he-fears horse *'The horse is afraid'*

Other constituent orders are consistent with Amazon area OV languages: Postp, Gen-N, N-A:

- (67) nohinai ana
 my-companion to *'to my companion'*
- (68) baba masene
 father field *'father's field'*
- (69) kahare xotyare kalore
 many deer big *'many big deer'*

Numerals and quantifiers occur before or after the noun. An adjective sometimes occurs before a noun, especially in a discontinuous sequence:

- (70) kolotya xaka xotyare
 fat he-shoot deer *'He shot a fat deer'*

1.6. Paumarí. Basic word order in transitive clauses is complicated by the case-marking system. If the analysis of two co-existing systems, one ergative, the other accusative, is accepted, then the basic word order is SVO, and Chapman (1979.4) certainly regards this as the unmarked order. If the 'passive' analysis is preferred to the ergative analysis, then the basic order is OVS, an order which has not been proposed for any other Arawakan language (see 2.2 for further discussion). I shall assume here the correctness of the ergative analysis and, therefore, the SVO basic order.

There does not appear to be any question about the basic order of intransitive clauses; it is VS (Chapman, 1979.5):

- (71) soko-a- ki hida mamai
 wash-DETRANSTVZR-NONTHEM DEMON, FEM mother *'Mother is washing'*
- (72) poꞤoꞤo-ha ada bahi
 black- THEME DEMON,MASC rain *'The rain was black'*

The subject can be fronted for what Chapman calls "informational prominence" (p.6), which includes newly introduced topics and contrastive focus, always pragmatically marked elements, and frequently also morphologically marked by means of postposed particles. The fact that VS is the unmarked order in intransitive clauses might seem to be an argument in favor of the OVS order being basic in transitive clauses. The matter is not so easily resolved, however, since the ergative analysis presupposes that (intransitive) S and (transitive) O are alike, at least for some morphosyntactic properties, and the postverbal position could well be one of these, so that under this analysis also SVO and VS are compatible basic orders.

In transitive clauses, SOV (74) and OVS (75) are fairly common, in addition to SVO (73), which is the basic order and most common of all:

- (73) jomahi-a bi-khori-ki hida nami
 dog- ERG he-dig- NONTHEM DEMON,FEM earth
'The dog is digging the earth'
- (74) makha bana hada haria ananaha-ra
 snake WARNING DEMON us bite- IMMED
'It is a snake that is going to bite us'
- (75) i'oa- ra na- hado- ha ada kodi-abi'i
 tambaqui-OBJ CAUS-knife-THEME DEMON,MASC my- father
'My father cut the tambaqui fish'

Chapman (1979) explains the SOV order as always signalling some kind of prominence of S (see above), and this is reflected in her glossing of (74). Her explanation for OVS is:

Removal from prominence is shown by a backward shift or deletion ...
 The subject of a transitive verb may be backward shifted to the
 post-verb position (1979.5-6).

In fact, most examples of SOV and OVS in the two papers from which the data comes (Chapman, 1978, 1979) have pronominal objects (see (74)); (75) is an

exception), and Chapman (1979.26) notes:

When an object pronoun occurs it is obligatorily placed immediately preceding the verb ... When the third person object is plural, va'ora must occur [as a preverbal pronoun], even though the object is overtly stated [that is, as a noun phrase].

The orders VSO and VOS are virtually never found, and OSV only occurs with the O in a left-dislocated position (see 2.2 for an example), again for purpose of giving prominence to that element (Chapman, 1979.7-8).

All the evidence thus points to SV0 as the basic order, and wherever S occurs in the immediately pre-verbal position it is marked by the clitic -a 'ergative'. The only other position in which S is marked by this clitic is when it is right-dislocated, in an 'afterthought' clarification function.

Verb prefixes mark the person and number of the subject. The gender of third person objects is distinguished in some verbal suffixes under certain conditions (see 3.14). Many clauses do not have subject and object nominals, and constitute what Chapman (1979.4) calls a "V clause":

(75a) va- nako'di- ha

3PL-seek for-THEME, MASC SG.OBJ. *'They searched for it'*

In (75a) the discourse context supplies the information as to the referents of the subject and object; the object refers to ada baroro 'species of leaf', which is masculine and singular, both of which categories are signalled by the form of the suffix -ha.

Other constituent orders follow the predominant Arawakan pattern, consistent with OV rather than VO language: Postp, Gen-N, N-A:

(76)	kodi moni	(77)	Maria jora-ni	(78)	ida	jomahi doro -ni
	me for		Mary mat- FEM		DEMON.FEM	jaguar young-FEM
	<i>'for me'</i>		<i>'Mary's mat'</i>			<i>'the young jaguar'</i>

1.7. Terêna. The most common order of constituents in intransitive clauses is VS (Bendor-Samuel, 1961.3; Butler, 1977.94; Ekdahl & Butler, 1979.54). In transitive clauses it appears to be VOS (Ekdahl & Butler, 1979.83):

(79)	nikôti ne	Maria	
	eat	DEMON Mary	<i>'Mary is eating'</i>
(80)	oye'écoti xúpu	ne	Maria
	cook	manioc	DEMON Mary <i>'Mary is cooking manioc'</i>

Bendor-Samuel (1961.4) reports that SVO is also common, but Butler (idem) and Ekdahl & Butler (1979.84) regard the preverbal position of S as pragmatically marked, giving emphasis to the subject ("agent focus" in Butler's terms):

(81) Maria nikô

Mary eat *'It is Mary who ate'*

(82) Maria oye'éco xúpu (or) Maria, ene oye'éco xúpu

Mary cook manioc Mary, she cook manioc

'Mary, she is the one who cooked the manioc'

The addition of the pronoun (ene above) gives additional emphasis. The object can also be fronted for emphasis, giving OV and OVS orders, and this is accompanied by a change of stress placement in the verb:

(83) xúpu oyé'eco ne Maria (or) xúpu ene oyé'eco ne Maria

manioc cook DEMON Mary it

'Manioc is what Mary is cooking'

(84) xúpu níko *'It is manioc that she is eating'*

Bendor-Samuel (1961.8-9) discusses various possibilities where one or more noun phrases (subject, object, indirect object) precede the verb and concludes that "there is some emphasis on the [noun phrase] which immediately precedes the [verb]".

VSO also appears to be a fairly frequent order. It is distinguished from VOS by morphological marking involving the presence or absence of (1) a third person object suffix in the verb, and/or (2) a demonstrative in the first noun phrase after the verb. VSO requires either the suffix or the demonstrative, but does not permit both; VOS requires either the absence of both suffix and demonstrative, or the presence of both (Bendor-Samuel, 1961.43-44; Ekdahl & Butler, 1979.54, 94):

(85) VSO: a. ohyonoko-a koesoe tapi'i b. ohyonoko ne koesoe tapi'i
bite OBJ snake chicken bite DEMON snake chicken

VOS: c. ohyonoko tapi'i koesoe d. ohyonoko-a ne tapi'i koesoe

'The snake bit the chicken'

Whichever of the above orders occurs, a demonstrative is optional in the second noun phrase, whether it is subject or object. Referring specifically

to the object noun phrase, Ekdahl & Butler (1979.95) state that the use of the demonstrative indicates that the referent is definite and specific, and that where it is not used the focus is on the activity and not on the object referent:

- (86) a. yuvócoti tîpe
 he-shoot deer *'He is shooting deer'*
- b. yuvóco- a ne tîpe
 he shoot-OBJ DEMON deer *'He is shooting/has shot the deer'*

The evidence for constituent order in subordinate clauses is restricted to a few examples, in which there is never more than one noun phrase, which may be S or O, and which always follows the verb.

The person and number of the subject is marked in the verb phrase in a variety of ways, including verb prefix, vowel change and nasalization; optional clitics mark plural of second and third person; third person singular is unmarked (Ekdahl & Grimes, 1964.266). In addition to the third person object suffix, there are suffixes which mark indirect object or benefactive (*idem*). The use of these person-marking affixes means that subject and object nominals need not be specified in a particular clause. In his taxonomy of verbal clause types Bendor-Samuel (1961.7-8) includes one in which the verb is the only nuclear constituent, but says that such clauses are infrequent "except as part of a multiple clause sentence type, ... or when functioning as a single word command or question".

The language is basically prepositional. Bendor-Samuel (1961.64; cf. 54-55) gives an exhaustive list of six prepositions: *ihyai* 'from'; *vo'oku* 'on account of'; *sanena* 'with'; *sapa* 'among'; *soko* 'to' (E&B, 115 show these last two as *xapa/xoco* 'with, in/at, to, from'); and *ya* (*yaa* in E&B, 165) 'at, in, on, to':

- (87) *ya ovoku*
 to house *'to the house'*

There is at least one form which occurs as a postposition or suffix and which has a function and meaning similar to some of the prepositions: *-ke* (*que* in E&B, 43) 'in, from, to'. The form *yaa* (see above) can also occur with the meaning 'there', either preceding or following a noun, or following a verb (E&B, 60).

The order in genitive constructions is N-Gen, obligatorily according to B-S (40):

- (88) enepo-ne hanaiti ovoku-ne Hele
 DEMON large house Hele 'that large house of Hele's'

In noun phrases the adjective precedes the noun, but a relative clause follows it (E&B, 207):

- (89) enepo ne xúnati hoyeno
 DEMON strong man 'that strong man'
- (90) enepo ne hóyeno imócoti
 DEMON man one-who-is-sleeping 'that man who is sleeping'

Demonstratives occur initially in the phrase, so that the complete noun phrase ordering is: Dem-Adj-N-RelCl, and N includes genitive constructions (B-S, 37-42).

The basic constituent orders in these three constructions are, therefore, consistent with the VO order in the clause (Prep, N-Gen, N-RelCl); it is true that adjective precedes noun, but even this is consistent in the context of OV Amazon languages, nearly all of which have N-A order in the noun phrase.

1.8. Waurá. The preferred order in transitive clauses is SVO (Richards, 1972.1; 1977.143-150):

- (91) kata kuhupíža típe aitya- pai ui
 these hawks all they eat- STATIVE snakes
 'All these hawks ate the snakes'

The subject is always indicated by means of a verb prefix, and there may also be a noun phrase; the object may be implicit, but is usually indicated by a verb suffix or noun phrase (rarely, both free form and suffix cooccur) (1977.144). Many clauses in a narrative discourse lack subject and object noun phrases: "participants are identified only when the narrator feels this is essential to avoid ambiguity" (Richards, 1979.31; cf. 1977.142-143).

The object may be fronted for emphasis, yielding OSV order (1972.1). The normal order in quotative sentences is OVS, the O in this case representing the direct speech, which may be a whole clause (1977.147, 149):

- (92) áitsu páta yanumáka unúka-pai sekúyiu
 us only jaguar harm- STAT long ago
 'Long ago the jaguar killed only us'

- (93) yetsipía p- íya nu-malañáitsa íma- pai í- pitsi í- neži
 soon you-go me-after he say-STAT him-to his-father
"You will follow me soon," said his father to him'

Indirect object is marked by a postposition and usually precedes or follows the direct object. In quotatives, as in (93), the addressee indirect object normally occurs between the main verb ('say') and the subject.

The order in intransitive clauses may be SV or VS. SV is normal where the semantics of the verb requires volitionality on the part of the subject, and VS is normal elsewhere (1977.151-152):

- (94) wekíhí katumala- pai
 owner he worked-STAT *'The owner worked'*
- (95) usitya ikítsii
 it burn sapé *'The 'sapé' grass caught fire'*

The language is postpositional, and the postposition always has a person-marking prefix, even when it is preceded by a noun:

- (96) awáulu í- u- tsa
 fox him-BEN-from *'from the fox'* (1972.10)
- (97) í- pitsi
 him-to *'to him'*
- I have not seen any descriptive statements about noun phrase constituent order, but examination of the data suggests that the orders are: Gen-N; N-A:
- (98) p- ínu í- tíwí-hã
 your-mother her-head-? *'your mother's head'* (1972.8)
- (99) tinéžu pawã-žikũ
 woman one- hand *'five women'* (1977.172)
- (100) áta kehížukáa
 wood strong *'strong wood'* (Jackson, 1975.8)

Like Paumarí, therefore, Waurá is a VO language which has other constituent orders that are more consistent with OV Amazon languages: Postp, Gen-N, N-A.

2. Case marking. Only two of the Arawakan languages in Brazil have case marking of subject or object nominals: Jamamadí and Paumarí. None of the Peruvian languages appear to have case marking.

Both Jamamadí and Paumarí have an object marker of the same form: -ra, although the conditions under which it occurs are different in the two languages. Paumarí also has an ergative marker; -a, which occurs under conditions in which the object marker is absent.

2.1. The Jamamadí object marker is not specifically discussed in any of the papers by R. Campbell and B. Campbell. Apart from the gloss in examples, the only reference to it is a statement that -ra has a variant form -a when it follows the syllable ri, as in atori-a 'skin-OBJ' (BC, 1973.2). Elsewhere in the papers there are many examples of clauses where ra occurs:

(101) Hara fadi-ra tofa- to- ka- ne- mata- mona- ne
 Hara wife-OBJ stuff-away-INSTR-STEM CLOS-SUPPOS-REPORT-COMMENT
 'Hara stuffed his wife (in a log in the jungle)' (RC, 1977b.2-3)

(102) ha katoso kara- to- na- mani yome oda-ra kaba-
 that shell misfire-STATE-STEM CLOS-if jaguar us- OBJ eat-
 ne- mete- ra
 SUBJUNCT-SUPPOS-CONTRAFACT

'If that shell had misfired, the jaguar would have eaten us'
 (BC, 1973.11)

There are also, however, scattered examples of transitive clauses in which object nominals are not marked by -ra. No explanation is offered, and it is difficult to know the exact conditions, but at least two seem to hold good in all the data seen: -ra does not occur in subordinate clauses, at least in purpose clauses marked by the verbal suffix -bona/-bone 'PURPOSE', of which there are a good number of examples (there are few examples of other subordinate clause types, and it is difficult to know in some cases whether or not a particular clause is subordinate); and -ra does not occur in imperative clauses:

(103) kabikana- ra di Nene haa- ne- mona, kabikana hina
 fish hook-OBJ the Nene call for-STEM CLOS-REPORT, fish hook his
 kaso kanika-bone-in, Bowatimaha
 aunt buy- PURP-COMMENT, Bowatimaha

'Nene asked for fish hooks, so that his aunt Bowatimaha would get fish hooks' (RC, 1977b.3)

- (104) yoi tao- ti- ka- na- hi
 monkey shoot-you-INSTR-STEM CLOS-IMPER
 'You shoot the monkey' (BC, 1973.24)

There is a tendency for the -ra marker not to occur when the subject is first or second person. This appears to be without exception in the case of imperatives; in declarative clauses it is generally the case, though there are a few exceptions:

- (105) wafa me fora- o-na- bone, sere rodi-o-na
 monkey PLUR shoot-I-STEM CLOS-PURP, dart roll-I-STEM CLOS
 'So that I could shoot the monkeys, I rolled a dart' (RC, 1977b.8)
- (106) di Ahadere noko-ra kosi- o-ne- ba- maka
 the André face-OBJ spank-I-STEM CLOS-FUT-after
 'After Andre (returns), I will spank his (not Andre) face'
 (RC, 1977b.14-15)

These conditions under which -ra does or does not occur suggest that the principal function of the case marker for Jamamadí is to distinguish the subject and object nominals, especially where ambiguity may arise. Unlike Paumarí (see below), the marker occurs irrespective of the position of the object in the clause. It is used with both OSV (103) and SOV (101) orders, and may also occur post-verbally, in what appears to be a clarification function (107); it also occurs in a phonologically dislocated noun phrase that is frequent discourse-initially to establish the topic of the discourse (108) (this may be restricted to noun phrases which are immediately repeated as the object of the first full clause of the discourse):

- (107) yosori- ra yose- mari- m, Tobi-ra
 younger brother-OBJ he-sent-EYEWITNESS-PERSPECT, Tobi-OB
 'He sent his younger brother, Toby' (RC, 1977b.9)
- (108) yobe-ra. yobe- ra me ati sari-na- na-mone
 house-OB. house-OB they say burn-STEM CLOS-do-REPORTED
 'House. They say they are going to burn the house' (RC, 1977b.4)

The use of -ra in Jamamadí does not seem to be restricted to definite

direct objects - see the main clause of (103), where 'fish hooks' is a newly introduced item (and there are even clearer examples). It is also found with negative, as well as positive declarative, clauses, and therefore does not seem to be an indicator of "high transitivity", as claimed by Hopper & Thompson (1980) for object case markers in general.

2.2. The Paumarí object marker -ra occurs only when the object is in the immediately preverbal position, in both SOV (109) and OVS (110) clauses, or when it occurs in a right-dislocated clause-final position with an "after-thought" or "clarification" function (111). Chapman (1979) regards -ra as marking "topicalized object":

- (109) bano pa'isi 'o-sa'a- ra anani-hi
 piranha small my-finger-OBJ bite- THEME
'A small piranha bit my finger'
- (110) i'oa- ra na- hado- ha ada kodi-abi'i
 tambaqui-OBJ CAUS-knife-THEME DEMON my- father
'My father cut the tambaqui fish'
- (111) vi- 'bai-maina-'a- ha siri amabokhoni-ra
 they-eat- next- ASPECT-THEME turtle elbow- OBJ
'They ate next, turtle elbow'

This accusative case-marking system, signalled by -ra, coexists alongside another, the ergative system. The ergative marker is -a, and it occurs when the subject of a transitive clause is in the immediately preverbal position, either SVO (112), which is the most common order of all, or O, SV (113), where O is always left-dislocated, or in a right-dislocated postverbal position (114):

- (112) Dono-a bi-ko'diraha-'a- ha ada isai hoariha
 Dono-ERG he-pinch- ASPECT-THEME DEMON child other
'Dono pinched the other boy'
- (113) 'akadi-prato, jara radahaki-a bi-na- roiroi-mai-
 our- plates, non-Paumarí passing- ERG he-CAUS-row- side by side-

-ribani-vini

-line- DEPEND

*'Our plates, a passing Brazilian having stood them up side by side
in a line ...'*

(114) bi-oga- ki, 'ovari Parajairo-a
he-know-NONTHEME, SUBJ-FOC-PRO Parajairo-ERG

'He knew it, that is Parajairo (knew)'

Other signals of the ergative system are: the verb prefix bi- '3SG.' marks transitive subject only when the -ra object marker does not occur (elsewhere, including intransitive, '3SG' is not overtly expressed in the verb); the postverbal position of intransitive subject (see 1.6) is the same as that of the object in the basic word order patterns; the demonstrative occurs only with intransitive S and transitive O in the basic patterns, never with transitive S when it is marked by -a.

The only alternative to an ergative system to explain these facts is to analyze sentences like (112) - (113) as passive constructions. In (112), Dono-a would then be an agentive phrase, 'by Dono' and the postverbal noun phrase ada isai hoariha 'the other child' would be the subject, the whole sentence being more appropriately glossed as 'The other boy was pinched by Dono'. This would yield an intransitive sentence, with normal unmarked word order for intransitives (VS), and the bi- '3SG.' verb prefix would presumably have to be reinterpreted as a third person marker that occurred only with this one type of intransitive, i.e. it would function as a passive marker as well as a third person marker. This would leave one of the -ra 'OBJ' sentence types as the unmarked word order for active clauses, probably the OVS, as in (110), since in SOV sentences (109) the subject is said by Chapman (1979.5) to be pragmatically marked for informational prominence. There are several arguments against this passive analysis: the NP-a V NP order is much more common than other orders, and if NP-a is interpreted as an agentive phrase and NP as subject, this would yield a highly unusual word order pattern for passive constructions, with the agentive phrase occurring in the same position as the object in the (then) unmarked type OVS, (so far as I am aware it is not reported for any other S. American language); and there are other passive constructions in Paumarí where bi- does not occur as a verb prefix and where agentive phrases do not appear to occur either (Chapman, p.c.; these constructions are similar to passives found in some other Arawakan languages, see 3.1). But probably the strongest argument against the passive analysis can be seen in (113); the verb suffix -vini 'DEPEND' is found only in transitive clauses; there is a corresponding form for intransitives: -ni/-na (Chapman, 1979.26, and for fuller discussion, Chapman, 1973). This means that sentences like (113) must be regarded as transitive, with both a

subject and an object, and the -a marked noun phrase is then the only candidate for subject. This also fits the most satisfactory interpretation of bi- '3SG.', which Chapman has always considered to be marking a transitive subject. The ergative analysis is, therefore, the only viable one, and this leaves Paumarĩ with two coexisting case-marking systems, one ergative and one accusative (see Derbyshire (forthcoming) for fuller discussion). Apart from their occurrences in right-dislocated constructions, both the subject and object markers occur when their respective noun phrases are in the immediately preverbal position. This probably argues for SOV and OSV as the most frequent orders at an earlier stage of the language, as is still the case for Jamamadĩ (see s.6). Compared with Jamamadĩ, there is redundancy in the double case marking of Paumarĩ, but the same distinguishing function appears to be the best explanation for the phenomenon.

There is one other type of case marker in Paumarĩ. It occurs with demoted direct objects (2-chômeurs in Relational Grammar terms, see Perlmutter, 1980). The marker is a postpositional clitic of the same form as the ergative marker: -a (this is also a locative/time/instrument marker (Chapman, 1969.43), and thus follows a pattern that is frequent across languages, where one of the oblique object markers is also used to mark ergative and/or chômeur relations). This 'demoted object' marker only occurs in ditransitive clauses. In (115), which is an SVO clause, the direct object 'the clothes' is postverbal and unmarked, and is followed by an indirect object/benefactive, marked by moni; in (116), an SOV clause, that indirect object has been promoted to direct object, evidenced by the preverbal position and occurrence of -ra 'OBJ', and the former direct object is still in the postverbal position but is now marked by -a 'DEMOTED OBJ' (a demoted object does not have to be postverbal; it can precede the direct object in sentence-initial position, but it is always marked by -a):

(115) Maria-a bi- soko-hi ida makari kodi-moni

Maria-ERG she-wash-THEME DEMON clothes me- for

'Mary washed the clothes for me'

(116) Maria ho-ra ko- soko-hi- vini hi- ki

Maria me-OBJ DITRANSTVZR-wash-DITRANSTVZR-DEP,TRANS PRO-VERB-NONTHEME

kodi-makari- a

my- clothes-DEMOTED OBJ

'Mary washed my clothes for me' (Chapman, 1978.58)

The construction in (116) appears to be much more common in the language than that in (115).

3. Verb morphology, with extended discussion of valence change, negation, and gender agreement to take account of other parts of the syntax which are affected. It has already been noted (s.1) that the verb is often the only nuclear constituent in clauses and sentences of these languages. It is not surprising therefore that there is the potential for a considerable degree of morphological and semantic complexity in a single verb form. The principal morphosyntactic categories that keep recurring in most, if not all, of the languages are: category or valence changing affixes; classifiers and modifiers; stem closure; subject and object agreement for person and number; aspectual distinctions; negation; verification/ modal distinctions. Others, reported for not more than two or three languages, are: thematic/perspective verb endings that relate to discourse features; noun class markers (other than gender); the actual v. potential mood dichotomy; tense; and registration of oblique relations in the clause. Gender agreement, except in T, is marked on one or more of the categories, usually with complex rules regarding which noun phrase governs the agreement. The following are typical examples of the complex verb forms:

(117) D: shava-tu- -na- mura- mita- nava ...

feel- 3,away- VB.CLASS-uphill-ITERATIVE-ADVERSATIVE ...

'Although he felt around up on the bank for it, ...'

(118) J: tofa- to- ka- ne- mata- mona- ne

stuff-away-INSTR-STEM CLOS-SUPPOSITION-REPORTED-COMMENT

'(He) must have stuffed away (his wife) inside (a hollow log)'

(119) PL: su- sukuh-bet- as- ape- p- ka

REPET-wash- particle shape-CAUS-SIMULT/GROUP-COMPLET- PASS

'(The clothes) were all caused to be repeatedly washed all over'

(120) PM: 'o-ka- va- gahina- i- fia- 'i- hi

1- DITRANS-COMIT-benefit-DITRANS-across- COMPLET-THEME/FEM/REMOTE

'I benefitted (someone) with (the tartaruga meat)'

(121) T: Ø- yutó- x- op- in- o- no- a

he-write-STEM CLOS-PURPOSIVE-DITRANS-ACTUAL MOOD-1SG.OBJ-3 OBJ

'He went to write it for me'

- (122) W: aw-á- yúku- t- úa- wi
 we-CAUS- urucu-CAUS-REFLEX-PERFECTIVE
'We painted ourselves with urucu'

This study focusses on main declarative verb forms, but we note in passing that other forms may be derived by the addition of appropriate suffixes to the verb stems. These include imperative, interrogative, subordinate verbs, nominals, adjectives, and gerunds. Suffixing is the principal means of deriving such forms in four of the languages: A, D, J, and PM; in the other four, free form particles and intonation are used for some of the derivations, and suffixing for others.

Affixing is the principal means by which the categories are encoded in verb stems and in the inflections of main declarative verbs. Suffixes predominate, but there are inflectional prefixes in all the languages and stem derivational prefixes in all except Palikur. A few of the categories are represented in some of the languages by affixes and in others by clitics and free forms, which are not restricted to occurrence in the verb phrase, although this is where they are usually found; these will also be briefly described.

Before discussing the affixing systems in detail, I will deal with a few other devices which are used to encode some of the categories. Reduplication occurs in PL and PR. In PL, there is reduplication of the initial syllable of the stem to express repetitive aspect; the reduplicated form appears as a prefix (H. and D. Green, 75):

- (123) PL: un ti- tiris-e
 water REPET-drip- COMPLET *'The water dripped repeatedly'*

In PR, there is reduplication of either one or both of two inflectional suffixes, which express progressive aspect and plural of third person subject; the reduplicated forms occur after another suffix, indicating continuative aspect, has intervened, and the reduplication signals that the subject is a large number of people; if only one form is reduplicated, it is the plural suffix (Rowan & Burgess, 92):

- (124) PR: Ø-kaoke- hena- h(a)-ita
 3-arrive-PROGRESS-PLUR-CONTIN *'They were arriving'*

- (125) PR: kaokehenahitaha (or) kaokehenahitahenaha
'The group/crowd was arriving'

In T, some variants of two of the categories are signalled by changes in

vowel features (other variants are expressed by affixes). Subject person markers are either prefixes or (i) stem-initial V --> [+nas] for '1SG.', or (ii) in stems that begin with a consonant or with i, the first vowel that is not i changes according to the following rules: [+back] --> [-back] and [-back] --> [+high] for '2' ; elsewhere the prefix y- signals '2' (Ekdahl and Grimes, 266):

- (126) T: a. *õtópikoa* 'I chop it'
 otópikoa 'he chops it' (∅-otópikoa)
 yotópikoa 'you chop it' (y-otópikoa)
- b. *pîho* 'he went' (∅-pîho); *pîhe* 'you went'
 yutóxoá 'he wrote it' (∅-yutóxoá); *yitóxoá* 'you wrote it'

In active verbs (in contrast with stative) in T, potential mood is signalled primarily by vowel harmony: all the /o/ segments in the basic (actual) mood form become /a/ in the potential mood; there may or may not also be a suffix, -a, to mark the potential mood; actual mood is normally expressed by the suffix -o; in stative verbs, actual mood is unmarked, and potential mood is expressed by a prefix a-/o- (Ekdahl & Grimes, 263):

- (127) T: (actual, active) *yutóxoá* 'He wrote it'
 (potential, active) *yutáxaa* 'Let him write it'
 (actual, stative) *xúnati* 'He is strong'
 (potential, stative) *ako á-xu-na* 'He is not strong'

In W, a mood distinction is also expressed by a vowel change. Actual mood is unmarked; potential mood is expressed by a change from a to e in the last stem syllable in the absence of suffixes, or in the last suffix with a (Richards, 1976.2, where it is also noted that the majority of verb morphemes end with a):

- (128) W: *a-iyá* (actual); *a-iyé* (potential)
 we-go 'We go' *we-go* 'We will go'

In the following treatment of affixes that express the various categories, derivational and stem-changing affixes are dealt with first (3.1-3.3), followed by the inflectional affixes that relate primarily to main declarative verb forms (3.4 - 3.13). Two final subsections deal with gender (3.14) and auxiliary verbs (3.15).

3.1 Category-changing or valence-changing affixes. There is a lack of data and description for D and J, only causatives being reported. The other languages have a range of these affixes:

verbalizers: not reported for D, J, and PL; the other languages have prefixes and/or suffixes which change nouns, adjectives, and occasionally other word classes into verbs: A has two suffixes, -ta and -ka, the latter being used with only a few forms: tika-ta (dung-VERBALIZER) 'to defecate'; yāō-ta (correct-VERBALIZER) 'to count'; apa-yāō-ka (to fetch-correct-VERBALIZER) 'to learn'; PR has three prefixes a-/e- with noun or adjective stems to form transitive verbs; ka- 'positive' and ma- 'negative' with noun stems to form transitive or intransitive verbs: a- + ijo 'hoe' --> ayo 'to hoe'; a- + watya 'hot' --> awatya 'to heat'; ka- + xa 'liquid' --> kaxa 'to dissolve'; ma- + sabaone 'soap' --> masabaone 'to lack soap'; W has two prefixes that are identical with two of the PR forms, but result only in intransitive verbs: ka- 'have' and ma- 'lack': ka-tai (have-fruit) 'to bear fruit' and ma-tai 'to be without fruit'; W also has another prefix and one suffix, both forming verbs from nouns, but with more specific meanings: pa- 'undo', as in pa-tsitya (undo-tying material) 'to break'; and -yala 'able', as in kapi-yala (wrestling-able) 'to be skilled at wrestling'; T has a prefix ko-/ka- which occurs with noun stems: ko-xe'xa-ti (VERBALIZER-her son-DESCRIPTIVE) 'she has sons'; PM has a prefix that occurs with noun stems, ka-, as in 'o-ka-paha-ki-ho (I-VERBALIZER-water-NONTHEMATIC-I) 'I have water', and another prefix and a suffix which occur with adjective stems: a- and -ha, both of which form process verbs, as in a-'bo'da-ki (VERBALIZER-old-NONTHEMATIC) '(the wood) is enduring/becoming old', and 'o-'bo'da-ha-ki-ho (I-old-VERBALIZER-NONTHEMATIC-I) 'I am becoming old'.

causativizers: these are reported for all the languages and the form is identical for three of them, the prefix na- in D, J, and PM; T also has a prefix, ko-; A has two prefixes and a suffix, ka-, ml- (only with inherently intransitive stems) and -ka; W has one prefix and two suffixes, a-, -ta, and -ka, and in this case the prefix sometimes cooccurs with one or other of the suffixes; PL and PR have only suffixes: (PL) -as(e) and -kis, and (PR) -ki; the A affixes ka- and -ka "usually are affixed to inherently intransitive stems but ... may also be affixed to inherently transitive stems" (Pickering, undated, 17; no examples are supplied); in both D and PM (nothing is specifically stated for J), the prefix na- is reported to occur only with intransitive stems (129) and nothing is said about how transitive stems are causativized; the PL suffixes occur with both intransitive and transitive stems (130 a,b); nothing is specifically reported for T; the PR suffix is not discussed in the source, and the examples show it occurring only with transitive stems; the W prefix and suffixes can occur with both transitive stems (131) and intransitive stems: e-kepeže-te (CAUS-flee-CAUS) 'cause to flee' (there are no examples of full sentences to show how the nominals are affected in the intransitive case); when the transitive is causativized in W, the nominals undergo an unusual kind of change, as can be seen by comparing the two sentences in (131): the subject of the simple transitive, yamukutái, becomes the direct object of the causativized construction, while the direct object of the simple transitive, kupátí, is expressed by a postpositional (instrumental) phrase in the causative (the more normal pattern across

languages for the change in relations of the nominals of a causativized transitive sentence is seen in the PL ex. (130b); lack of data and description in the sources makes it impossible to know what the normal pattern is for the Arawakan languages under discussion here):

(129) PM: 'o-na- vithi-ha ada isai

I- CAUS-sit THEME DEMON boy

'I caused the boy to sit'

(130) PL: a. er himak-kis bakibni

she sleep-CAUS child

'She causes the child to sleep'

b. er padukbet-ase ru- simsa ru- t ru- nar

she sew- CAUS her-dress her-to her-mother

'She caused her mother to sew her dress'

(131) W: n-ãĩtyá-ta- pái yamukutái kupátá i- tsénu

1-eat- CAUS-STATIVE child fish it-with

'I am feeding the child with fish'

(cf. yamukutái Ø-ãĩtyá-pai kupátá)

(child 3-eat- STAT fish)

(*'The child is eating fish'*)

transitivizers: these are reported for three languages, all with prefixes:

PR a-/e- (see also verbalizer), a-+waka 'go out' --> ewaka 'put out (fire)'

PM ra-/ka-, ka-+ihamahi 'be angry' --> kaihamahi 'be angry with (someone)'

ra-+okasi 'go up' --> arakasi 'hand up (something)'

T ko- (see also causativizer - no examples reported)

PM also has a suffix, -'a, which occurs only with the verb ni, which functions mainly as an auxiliary meaning 'do, be', but can also occur as a main verb meaning 'say'; cf. bada 'onina (work - I do) 'I work'; bada 'oni'ana 'I worked (it)'

ditransitivizers: these are reported only for PM and T:

PM has a prefix cooccurring with a suffix, $\left\{ \begin{array}{l} \text{ko-} \\ \text{ka-} \end{array} \right\} \dots \text{-hi}$; in all the examples found in Chapman (1978) there is a further change, in that when these affixes occur the main clause becomes a dependent clause and is followed by the auxiliary verb hi:

(132) PM: a. Maria-a bi-soko-hi ida makari (kodi-moni)

Mary- ERG 3- wash-THEME DEMON clothes (me- for)

'Mary washed the clothes (for me)'

b. Maria ho-ra ko- soko-hi- vini hi-ki

Mary me-OBJ DITRANS-wash-DITRANS- DEP AUX-NON THEM

kodi-makari-a

my- clothes-DEMOTED OBJ

'Mary washed my clothes for me'

T has a suffix, -ino/-in; it is more specifically a benefactive marker, since the clause can be ditransitive, with an indirect object, without this suffix (133c):

(133) T: a. isu-k o- a

hit-STEM CLOS-ACTUAL MOOD-3 OBJ *'He hit him'*

b. isu-k-in- o-no-a

DITRANS- 1 *'He hit him for me'*

c. pore-x- o- no-a

give-STEM CLOS-ACTUAL-1- 3 *'He gave it to me'*

d. pore-x-in o-no-a

DITRANS- *'He gave it for me'*

comitative: this is a particular type of transitivizer and is reported only for PM, a prefix, va-:

(134) PM: a. 'o-adaha-hi

I- journey-THEME, FEM

'I journeyed'

b. 'o-va- adaha-ha ada isai

COMIT- THEME,MASC the boy 'I journeyed with the boy'

detransitivizers: these change a transitive into an intransitive stem in a more general way than the specific detransitivizers such as passive and reflexive; they are reported for A, PR, and PM, and are always suffixes (two prefixal forms, e- and i-, are referred to as "intransitivizers" for T, in an appendix to Ekdañl and Butler, but no details are given):

A -rawa (Picking, undated, 17-18; no examples furnished)

PR -tyoa/-soa , etoli 'lay down (something)' + -soa --> etolisoa 'lie down'
tala 'fence' + tyoa --> talatyoa 'be fenced'

PM -ha/-a, which detransitivizes either by deleting the object or promoting it to subject and deleting the initial subject:

(135) PM: a. mamai- a bi-soko-hi hida makari

mother-ERG 3- wash-THEME these clothes 'Mother washed these clothes'

b. soko-a- hi ida mamai

DETRANS- DEMON mother 'Mother washed'

c. soko-a- hi ida makari

DETRANS- DEMON clothes 'The clothes are washed'

PM has three other suffixes which promote the object to subject and delete the initial subject: -a, and -vaha, which occur with only a few stems and produce a general, descriptive type meaning: bi-ha-ki (3 ERG-eat-NONTHEM) 'he eats (meat)' changes to ∅-ha-vaha-ki (3-eat-DETRANS-NONTHEM) '(the meat) is edible'; the other suffix, -hi, cooccurs with the dependent verb suffix in the examples given, and results in a medio-passive type meaning:

bi-anani-hi (3 ERG-bite-THEME) '(the dog) bit (the child)' changes to ∅-anana-hi-ni (3-bite-DETRANS-DEP) '(the child) got bitten'.

passives (see also reflexives and detransitivizers for medio-passive usages of some of those forms):

PL has an agentive type passive construction, in which there is an optional agentive phrase to express the initial subject; there is a verb suffix -ka/-ki 'passive':

(136) PL: a. ir ik ri- t im

he give him-to fish 'He gave fish to him'

b. im ika- kī ri- t (r- apit João)

fish give-PASS him-to (him-by John)

'The fish was given to him (by John)'

A, T, and W all have nonagentive passives, where the initial subject is obligatorily suppressed, and the passive is signalled by a verb suffix: A: -v̄ka; T: -kono; and W: -kina; the W suffix can also occur with intransitive stems to form an impersonal passive, which does not have any surface subject (Richards, 1976.19):

(137) A: anio Pedro jorotakaro okapeẽ-ka

mosquito Peter one-who-bites kill- PASS

'The mosquito which bit Peter was killed' (Pickering, 1973a.5 - the corresponding active form is not given; cf. Pickering, undated, 17)

(138) T: a. n-gíxo- a ne hoyeno

I-speak to-him DEMON man 'I spoke to the man'

b. ∅- kixó- kono ne hoyeno

he-speak to-PASS 'The man was spoken to'

c. ∅- poréxo-no-a

he-give- me-it 'He gave it to me'

d. ∅-poréxo-kono-a marakáya

3-give- PASS-it cat 'The cat was given it'

(this example shows that in T the passive marker can cooccur with the object suffix, in what was a ditransitive clause in the corresponding active construction)

(139) W: a. n-aipiáka yámukutái

I-scare child 'I scared the child'

b. ∅-aipiáka-kina yámukutái

3-scare- PASS child 'The child was scared'

c. Maakawa Ø- íya-wi

Maakawa 3- go- PERFECTIVE 'Maakawa went'

d. iyá-kína-wi

go- PASS-PERF 'Someone went/There was a going'

PM forms a passive construction by using an inflected form of the auxiliary verb -hi 'be' following an intransitive dependent form of the main verb, which is marked by the suffix -ni(fem)/-na(masc); both the initial subject and direct object are retained in the passive construction, but they evidently cannot be considered to have those grammatical relations, since they are not marked for case (ergative or object), and the surface form is intransitive (the transitive verb prefix bi- '3SG.' does not occur) (see 1.6 and 2.2):

(140) PM: a. 'i'oa- ra saka- ha ada koko

tambaqui(fish)-OBJ harpoon-THEME DEMON uncle

'Uncle harpooned the tambaqui fish'

b. 'i'oa saka- na hi-ha ada koko

tambaqui harpoon-DEP, INTRANS. be-THEME DEMON uncle

'The tambaqui was harpooned by uncle'

No passives are reported for D, J, and PR.

reflexives: no reflexives are reported for D and J: PM does not have a reflexive suffix, but uses a separate word abono 'REFLEX' (it also means 'body', 'spirit', 'whole' in suitable contexts); it is inflected for person with the set of verb prefixes: o-abono (1SG-REFLEX) 'myself'; second person forms and third person singular take the suffix -ni which marks feminine gender: i-abono-ni (2SG-REFLEX-FEM.) 'yourself'; abono 'himself'; abononi 'herself'; ava-abono-ni (2PL-REFLEX-FEM.) 'yourselves'; the third person plural form is not marked for gender: va-abono (3PL-REFLEX) 'themselves'; in the other five languages, similar forms of suffix are found: A: -wa/-awa/-kawa; PL: -wa; PR: -wi; T: -vo/-pu; W: -ua; typical examples are: PL: ihuk-wa (cut-REFLEX) '(he) cut himself'; PR: moko-tyoa-wi (hit-DETRANS-REFLEX) 'he hit himself'; W: aw-á-yúku-t-úa-wi (we-CAUS-urucu-CAUS-REFLEX-PERFECTIVE) 'we painted ourselves with urucu'; Ø-wasity-ua-wi (3-throw-REFLEX-PERFECTIVE) 'it got lost'; the medio-passive usage seen in this last example is reported for T, as well as W;

reciprocals: A: -kaka; PL: -ak/-ek; PR: -kako; PM: ka-...-khama; T: -koko/-kaka; nothing is reported for the other languages; typical examples are: PL: irkis biyuh-ak (they-hit-RECIP) 'they hit each other'; PM: va-abono va-ka-ni-'a-khama-ha (3PL-self 3PL-RECIP-say-TRANSTVZR-RECIP-THEME) 'they said to

each other'; in PM, as seen in this last example, the free form inflected reflexive cooccurs with the reciprocal affixes (Chapman, p.c.).

3.2. Classifiers and modifiers. These terms refer to two distinct semantic groupings of stem suffixes: classifiers are forms which express the shape, or some other characteristic, usually of the object in a transitive clause (but see below); modifiers cover semantic concepts which in other languages would be expressed as locative, temporal, or manner adverbials. Classifiers are reported only for PL, T, and W; modifiers are fairly numerous in A, PM, and W, and a few are found in all the other languages except PL.

Classifiers in PL indicate "the shape of the object" (H & D Green, 81); in W, they are "included in the verb stem when called for by the nature of the patient or of one of the actants of the verb or by the incorporation of a noun or a postposition into the verb stem" and "the majority of verbs occurring with such classifiers are stative" (Richards, 1976.9); in T, they appear usually to be incorporated object nominals, or subject nominals of nonvolitional intransitive verbs (Bendor-Samuel, 98-99; Ekdahl & Butler, 167-168). In all three languages they most frequently refer either to the shape of an object ('flat', 'round', 'long and thin', 'pointed', 'wedge', 'cylindrical', etc.) or to human attributes or body parts ('male person', 'mouth', 'hand', etc.), but they also include other characteristics, such as 'deceased', 'liquid', 'outside/inside of an object', 'pertaining to a tree', etc. In W, some classifiers may immediately follow a verbalizing prefix to form a stem, without any intervening verb root, e.g. ka-tũpa (have-DECEASED) 'mourn'; ma-kitsi (lack-WEDGE SHAPE) 'blunt' (see 3.1 for verbalizers). Other examples of classifiers are: PL, sukuh-kise-ne (wash-POINTED OBJECT-DURATIVE); sukuh-kure-ne (wash-foot-DURATIVE); T, -pu'i 'round object' in alupu'isoti 'he climbed up (a pole)'; -noke 'neck' in tetunokesoti 'his neck is cut'.

Prominent among the modifiers are locationals, positionals, and directionals although none are reported for A and PL (all PL adverbials are separate free forms). Wise (20) says that the "directional category common to all of the PreAndine Arawakan languages is 'arriving' encoded by -ap ... or some variation"; W has a form -pe 'approaching' which "indicates motion back towards the original starting point" (Richards, 1976.15):

(141) W: t- úa- kĩne- pé izz- nãĩ
go-towards-IMP.PASS,POTENTIAL-APPROACH this-place

*'People will come back here/There will be a coming back here
(by people)'*

W also has a suffix -ani 'leaving', which is similar in form and meaning to one which Wise cites for Asheninca. In D, J, and PM, the directionals include

many forms relating to river travel; some examples from PM are:

(142) PM: vada 'o-a- ká- ni- mari- hi

look I-away-canoe-AUX- downriver-THEME,FEM

'I in the canoe looked downriver'

(143) PM: 'ovani 'ada kaasi-a vadi- thimaha-ma'o- ha

EMPH.SUBJ. DEMON beach-at sleep-upriver-ground-THEME,MASC

'That one, he slept on the beach upriver'

A variety of forms is found for other types of adverbial modifying suffixes, but recurring meanings include 'forcefully', 'repeatedly', 'almost', 'still', 'only'.

3.3 Stem closure. Wise (11-13) reports that in the PreAndine Arawakan languages of Peru "a ubiquitous empty or almost empty morph including the consonant t occurs frequently in verbs"; the forms most often found are (V?)t and (V)ta. Apurinã is the only Brazilian language where such a form is reported, and it is -ta: "if any of the optional affix orders is represented, the stem is obligatorily closed by ta" (Pickering, undated, 17; no examples are given).

In T, there is what Ekdahl & Grimes (261) call a "thematic suffix", having the forms -k, -x, and -∅. In that analysis they are treated as verb stem classifiers, but they seem to be devoid of semantic content, and somewhat parallel to the stem closure morpheme found in Apurinã and the Peruvian languages. One difference is that in T the forms always occur immediately after the verb root, before any other suffixes are added, whereas, in the other languages, the t forms can occur following other suffixes (in A only when there are other stem suffixes).

In D there are two forms which are glossed 'verb class marker': -na, -hi, and in J the form -na(FEM)/-ne(MASC.) is glossed 'stem closure'. These, however, seem much more like the PM auxiliary verb forms -ni, -hi, in that they usually occur with person-markers and other prefixes immediately preceding, thus separating them from the uninflected main verb stem which also precedes. Pending a fuller description, I regard them provisionally as inflected auxiliaries, and not as suffixes of the main verb, following Chapman's analysis of the PM forms.

I have not seen any evidence for the "empty morph" in D, J, PL, PR, PM or W.

3.4 Subject agreement. There are pronominal prefixes which agree with the person, and in some cases with the number, of the subject, in all the languages except PL, which has only free form subject pronouns. There is some similarity in forms across the languages, as the following paradigms show, two obvious groupings, based especially on the singular forms, being: A, PR, and W; and D, J, and PM. D has two sets, the 'directed' set being used when one of three semantic components is involved: change of location; short-range goal; or immediate attention (G. Koop, 1976.2). Gender distinctions are found only in the third person forms of A and PL. Elsewhere third person singular is not overtly expressed, except for the ergative form in PM. The J set is not specifically documented in the sources available, and may not be complete. Only the main variants are shown for each person.

	A	D		J	PR	PM	T	W	PL
		regular	directed						free forms
1SG.	ni-	'u-	'a-	o-	no- na-	'o-	(VOWEL NASLZN)	nu- n(V)-	nah
2SG.	pi-	ti-	te-	ti-	hi- ha-	'i-	y- (VOWEL CHANGE)	pi- p(V)-	pis
3SG.	i-) MASC. ∅-) o- FEM.	∅-	∅-	∅-	∅-	∅- bi- 'ERG'	∅-	∅-	ir MASC. er FEM.
1PL.	a-	'i-	'e-		wi- wa-	'a- 'ari-	v- ∅-	ai- aw- a(V)-	wis incl. DUAL wixwi incl. PLUR. usuh EXCL.
2PL.	ĩ- hĩ- (h)V-	ti(V)-	te(V)-		xi- xa-	'ava- 'avi-		yi- y(V)-	yis
3PL.	(3SG. forms)	∅-	ka-			va- vi-		∅-	irkis MASC. erkis FEM.

Other markers of number are: in A a suffix -na cooccurs with the '3SG' forms to mark '3PL'; in D there is a free form mede '3PL'; in J there is a free form me '3PL'; in PR there is a suffix -ha '3PL'; in T there are three clitics:

-uti '1PL' cooccurs with \emptyset -; -noe '2PL'; and -hiko '3PL'. See the introduction to s.3 for a fuller account of nasalization and vowel change in T.

There are two person-marking suffixes in PM: -ho '1SG' and -i '2SG'; they cooccur with the subject prefixes and usually mark subject, on both transitive and intransitive verbs; occasionally, under conditions still not clearly understood, they mark object (Chapman, p.c.).

The D forms are stated by G. Koop (1976.3) to occur as suffixes on some verb stems, but in the examples given these occur prefixed to what I regard as probably an auxiliary verb (G. Koop treats it as another suffix of the main verb: -na 'verb class marker'; see 3.3 for my fuller comment). The same situation seems to hold for some J examples, where the person-marker appears as a suffix, but always precedes what looks like an auxiliary verb.

3.5 Object agreement. There are pronominal suffixes which agree with the person and number of the object in A, PL, and T; in PL there is also a set of object agreement prefixes, which cooccur with the 'inceptive' suffix and with a single object suffix form which does not vary for person or number, and which replaces the more normal suffixal paradigm. In PR and W, there are suffixes for signalling third person singular object only and, in the case of PR, only when there is no free form object. Object agreement affixes are not found in D and J, and in PM they are restricted to the first and second person suffixes which usually agree with the subject, but sometimes agree with the object (see 3.4). In A and PL, gender distinctions are marked in third person forms, as is the case with the subject prefixes and pronouns in those two languages. The paradigms for the object-marking affixes are shown below:

	A	PL		PR	T	W
		Prefix cooccurs with IN- CEPTIVE, and with OBJ. suf- fix <u>-ten/</u> <u>-tni</u> or <u>-ka</u>	Suffix			
1SG.	-no	nu-/n-	-un/-an/-en		-nu/-no	
2SG.	-i	pi-	-pi/-ap/-ep		-pi	
3SG.	-ri MASC. -ro FEM.	ri- ru- a-/ag-	-ri/-ir MASC. -ru/-ir FEM. -ni/-in INAN.	-ene (when no free form 0 occurs)	-a	-wi ACTUAL MOOD -i POTENTIAL MOOD
1PL.	-wa	u-/wo-	-wi/-aw/-ew		-Vri	
2PL.	-waka	yi-	-yi/-ay/-iy			
3PL.	-(wa)(ka)na	(suffix -kis with 3SG. ANI- MATE FORMS)	-rikis/-irkis MASC. -rukis/-irkis FEM.			

T can have two object suffixes in sequence, the first referring to indirect object or beneficiary, and the second to direct object: pore-x-o-no-a (give-STEM CLOS.-ACTUAL-1 OBJ.-3 OBJ.) 'He gave it to me'. The options in PL with regard to use of prefix or suffix object markers are: (1) 0 prefix, inceptive, -ten/-tni 'OBJ.': ir ri-uhm-ep-ten (he him-kill-INCEPTIVE-OBJ.) 'He began to kill him'; (2) abilitative modal clitic -hiya, 0 prefix, inceptive, -ka 'OBJ.': (ir (he) ka-hiya (not able) ri-uhm-ep-ka (him-kill-INCEPTIVE-OBJ.)) 'He is not able to begin to kill him'; and (3) 0 suffix with other aspect forms: ir bi-bi-ptih-eh-p-ir (he repeatedly-hit-a little bit-while moving-COMPLETIVE ASPECT-him) 'He hit him a little bit while moving'. For the mood distinctions in W, see introduction to s.3.

3.6 Aspect. Apart from J, for which the sources do not discuss aspect at all, and PM, for which there is reference only to a single aspect, -'a/-'i 'COMPLETIVE', several aspectual distinctions are reported for each language, and they always take the form of the presence or absence of particular suffixes. The terms used are not always defined, and it is likely that some sources use different terms for the same basic category, and possibly (although less likely in my judgement) the same term may sometimes refer to different categories. Aspect suffixes can, and frequently do, occur verb-final, but they are usually followed by object suffixes (A, PL, PR, and W), verification suffixes/clitics (D), or thematic/perspective suffixes (PM); only in T, where there is just the one overt form -ti 'DURATIVE, PROGRESSIVE', does it appear to be always verb-final, and even here it can be followed by a clitic -mo 'FUTURE'.

There is a three-way distinction found in most of the languages, and I shall refer to the three aspects here by the terms most commonly used in the sources: completive; progressive; habitual. 'Completive' for these languages includes one or more of the notions 'perfective' (looking at the situation as a complete whole), 'punctiliar' (action taking place at a moment of time), and 'telic' (where the focus is on a well-defined completion point). 'Progressive' (or 'durative') seems to be used consistently in the sources to signify an action as being in progress, without regard to any particular point during that progression. 'Habitual' appears to be used primarily to indicate an action that is habitually performed, without reference to any specific act or to the duration or end points of an act.

The completive aspect forms are: A: -pe; D: -ni(FEM)/-vi(MASC); PR: -heta; PL: -e/-i/-wi/-pi/-ep; PM: -'i/-'a; T: -∅, specifically the absence of -ti 'DURATIVE, PROGRESSIVE'; and W: -wi 'PERFECTIVE' and -ehene 'PUNCTILIAR'. There are two groupings of similar forms: A, PL, PR -pe/-pi (the change from p to h in PR seems fairly regular, cf. the '2SG.' forms in 3.4); and PL, W -wi. Examples of full verb forms are: D: ka-'u-ni-masha-ni (chop-1SG.-VB.CLASS-forcefully-COMPLETIVE) 'I chopped hard'; PL: ir ayap-ep-ri (he-help-COMPL.-him) 'He helped him'; PR: mo-het(a)-ene (put in place-COMPLETIVE-3SG.) 'He put it in place'; PM: va-a-kaira-ha-'a-ha (3PL.-VBLZR-guava-DISTANCE-COMPLETIVE-THEME) 'They went to get guava'; T: ∅-isú-k-o-a-∅

(he-hit-STEM CLOS.-ACTUAL-3 OBJ.-NONDURATIVE) 'He hit him'; W: ∅-īya-wi
(he-go-PERFECTIVE) 'He went'.

The progressive aspect forms are: A: -na; D: -nava; PL: -n/-ne(ne)
(MASC)/-(na)no(FEM); PR: -hena; T: -ti. There is no reference to
progressive aspect forms in the J, PM and W sources. There is evident
similarity of form in the languages where a form is found, other than T.
The form in T indicates 'progressive' with active verbs, and 'durative'
("a state during a given period of time") in stative verbs. The D form -nava
also has an adversative meaning; the PR form -hena appears to occur often
with a purposive meaning, and it can cooccur with the 'completive' suffix.
Examples of full verb forms are: D: u-kha-thimi-nava (1SG.-MOTION VB.-
upstream-PROGRESSIVE) 'I was going upstream'; PL: ir sūkh-kise-ne (he wash-
pointed-DURATIVE) 'He was washing (something pointed)'; PR: n-ixa-hena
(1SG.-shoot-PROGRESSIVE) 'I am going to shoot (something)'; T: ∅-pih-ō-ti
(3SG.-go-ACTUAL-PROGRESSIVE) 'He is going'.

The habitual aspect forms are: A: -pi; PL: -∅; PR: -tya/-ka/-sa;
T: -∅; W: -pai; the unmarked form in PL is part of the paradigm in which
it contrasts with completive, progressive, and inceptive aspects, is found
in negative constructions, and is obligatory with certain verbs, including
those meaning 'die' and 'know'; the unmarked form in T also indicates com-
pletive aspect, and contrasts only with the progressive suffix -ti; the W
form -pai may also indicate a state, or an action that "takes a while to
perform", but the most common meaning is an action that is habitually per-
formed (Richards, 1976.16); the PR form is mutually exclusive with the
completive suffix, and may include a meaning of 'present' in completed action.
This aspect is not reported in the D, J, and PM sources. Examples:
PL: ir himak (he sleep) 'He sleeps'; PR: ∅-xawa-tya (3SG.-throw-HABITUAL)
'He throws'; T: ∅-tetú-k-o-a-∅ (3SG.-cut-STEM CLOS.-ACTUAL-3SG.0-HABITUAL/
COMPLETIVE) 'He harvests/harvested (rice)'; W: n-āitya-pāi (1SG.-eat-
HABITUAL/STATE) 'I eat/am eating'.

Other categories referred to as "aspect" in individual languages include:
desiderative (A); simultaneous (D, PL); distributive (D); inceptive (PL);
imminent (T, W, and a VP clitic in PL); and "unmarked" aspect (D). Only the D
categories, the A 'desiderative', the PL 'inceptive', and the W 'imminent'
occur in paradigms in which they contrast with any of the three main aspect
categories reported above.

3.7 Negation. Sentence negation in these languages is by verbal suffix,
phrasal clitic, free form, or a combination of these forms. In three of the
languages, the primary means appears to be by verbal suffix (some doubt exists,
since there is not a full treatment of negation in the sources, and the evi-
dence comes mainly from irregular occurrences in the data): D: -ra/-ri;
J: -ra; and PM: -ri:

(144) D: u-zavi- ri- hi
 I-scold-NEG-DISTRIB,FEM. 'I don't scold them'

(145) J: me o-wa- ra- ro-
 them I-see-NEG-recently-NONTHEMATIC 'I didn't see them'

(146) PM: i- nofi-ri- hi
 you-want-NEG-THEME 'Don't you want it?'

Proclitics are the primary means in A and PL, and there is a proclitic in PM which is frequent in negative constructions, but never cooccurs with the suffix -ri (see above). In all three languages, these proclitics occur with nominal, as well as verbal, phrases, functioning as constituent, as well as sentence, negation. The forms are: A: na- ; PL: ka-; PM: ni-:

(147) A: a. na- ny-keta- ry kema
 NEG- I- shoot at-it tapir 'I didn't shoot at the tapir'

b. na- kakamare-no
 NEG-doer- I 'I am not a doer' / 'I am not doing anything'

(148) PL: a. ir ka- ax hiyer
 he NEG-eat people 'He doesn't eat people'

b. ir ax ka- hiyeri-ma
 he eat NEG-people-NEG 'It is not people that he eats'

(149) PM: a. ni- 'o-nofi-ki ida
 NEG-I- want-NONTHEMATIC DEMON 'I don't want it'

b. ni- nahina- ra 'o-ha- ki
 NEG-anything-OBJ I- eat-NONTHEMATIC 'I have eaten nothing'

The enclitic -ma 'NEG' in PL (148b) sometimes cooccurs with the proclitic ka- to place emphasis on the constituent that is negated; it can occur in the verb phrase, but never immediately follows the verb root (H&D Green, 42-3). It is not clear what conditions determine the use of the proclitic ni- and the suffix -ri in PM. Although in example (146) -ri occurs in an interrogative construction, it can also occur in main declarative and in subordinate constructions.

Occurrence of a free form, usually in sentence-initial position (in W it sometimes occurs following one other constituent) is the primary means of sentence negation in the other three languages. The forms are: PR: maisa; T: ako (with potential mood form in the verb) and hyoko (with actual mood form); W: aitsa. In PR, there is a verbal suffix -re/-xe which often cooccurs with the free form maisa, although the free form can, and frequently does, occur without it:

- (150) PR: a. maisa Ø-semare-ha
 NEG 3-hear- PLUR *'They do not listen'*
- b. maisa Ø-xawa- tya- re
 NEG 3-throw-HABIT-NEG *'He didn't throw it away'*
- (151) T: a. Ø-pih-óp- o
 3-go- DIRECTIONAL-ACTUAL *'He went to where he came from'*
- b. ako Ø-pih-áp- a
 NEG 3-go- DIR/POTENT-POTENTIAL *'He did not go to where he came from'*
- c. pih-ép- a
go- 2/DIRECT-POTENTIAL *'Go back where you came from'*
- d. hyoko pih-ép- o
 NEG go-2/DIRECT-ACTUAL *'Do not go back to where you came from'*
- (152) W: a. aitsa atíka-pai uhu
 NEG dig- STATIVE potato *'She is not digging (sweet) potatoes'*
- b. wauža aitsa ãiča-pai yuta
Waurá NEG eat- HABITUAL deer *'Waurá do not eat deer'*

The four T examples are from Ekdahl & Grimes (267), and illustrate a further characteristic of these negative forms, which they state as:

In negative phrases a reversal of mood takes place, so that a stem that is actual in form has the meaning and distribution of a potential while a stem that is potential in form has the meaning and distribution of an actual.

Thus, the positive declarative sentence (151a) has actual mood marking, while its corresponding negative declarative (151b) has potential marking; whereas

the positive imperative sentence (151c) has potential marking, while its corresponding negative imperative (151d) has actual marking. A similar reversal of moods with negative forms is reported for Campa dialects in Peru, although the distinction there is stated in terms of "future/irrealis" v. "non future" rather than potential v. actual (Wise, 43). In T, there is also a verbal prefix o- 'NEG' which occurs with some verbs (Butler, 1977.92), but no examples are given.

The free forms in PR and T are also used for constituent negation (none of the sources for W treats negation extensively, so it is possible that the free form in that language may also have this function). In PR, a negated noun phrase consists of a noun preceded by maisa and followed by a negative marker, aka or xini:

- (153) PR: a. maisa kawalo aka
 NEG horse NEG *'no horse'*
- b. maisa wakaimo xaneta xini (cf. maisa wakaimo xaneta)
 NEG Wakaimo he-go NEG
 'It was not Wakaimo who went' (cf. *'Wakaimo did not go'*)

In T, ako 'NEG' occurs with noun phrases to indicate negation of existence: ako koyúhoti 'There is no speaker'; another free form, haina 'ESSIVE NEGATOR', occurs when identity is being denied: haina koyúhoti 'He is not the speaker'; haina also occurs with verbs marked with the aspect suffix -ti 'PROGRESSIVE/DURATIVE': haina laká'iti 'It was not wet'; haina nikôti 'He was not eating' (Butler, 1978.51).

Special forms are found for imperative negation in A: -pe 'don't', -pani 'stop' (both suffixes; Pickering, undated, 21, 29); in PR, there is a free form awa, which occurs "when the command is not to do something or to stop doing something" (Rowan & Burgess, 56; two other forms with restricted meaning and usage are also reported: wayehena 'reproach' and kotare 'do nothing'); in PM, there is a free form hari'a 'do not'. In T, hyoko occurs to indicate negation of imperatives and other constructions which, in their corresponding positive forms, occur with the potential mood marker (see above).

There are also a few special forms which express emphasis of some kind: in A, kone signals emphasis in sentence negation, and also constituent negation generally (Pickering, 1978.237, 240-244); in J, there is a free form awira 'EMPHATIC NEGATIVE' (B. Campbell, 1973.12); in PL, as noted above, the enclitic -ma cooccurs with the proclitic ka- to express emphasis. In D, the normal negative suffix is replaced by a verification/modal clitic -re 'NEGATIVE/ADVERSATIVE' to indicate "emphasis on an adverse situation" (G. Koop, 1980.58-59).

3.8 Verification/modal. This category is most fully documented in the three languages of the Arauan branch, D, J, and PM, and in PR. A few forms that seem to fit into this category are reported for PL and W; in A, only a single form awako 'EXPRESSING DOUBT', an enclitic, is reported (Pickering, undated, 30); nothing is reported for T.

There is not much similarity in the forms reported across the languages, and in the glosses not as much identity of meaning and function as one would expect. This may simply reflect the different perspectives of the individual analyst-reporters, in an area where it is particularly difficult to arrive at precise definitions. G. Koop (1980:52-64), for example, discusses 11 forms, tentatively describing them as "something like performatives, a statement of inference, or a statement or denial of knowledge or of personal experience/accountability". He refers to them as one of several sets of suffixes which always occur in the verb-final position (the aspect suffixes form another such set), but some of them, at least, also occur following categories other than the verb, so that they function more like clitics. Some forms and examples are: -tuvi 'RESOLUTION, CERTAINTY OF A FORTHCOMING EVENT'; -vaha 'CONCLUSION, DECLARATION BASED ON EXPERIENTIAL EVIDENCE'; -zama 'PROBABILITY':

(154) D: a. Hataruni eza tu-vithi-tuvi

Hataruni here 3- sit- RESOLUTION '*Hataruni will sit down here*'

b. ha ha ha ha iau au au au hizama- vaha

sounds made by wild pigs wild pig-CONCLUSION

'....., "wild pigs", (I tell you)'

c. ukha da'u muna-zama

my son die- PROBABILITY '*My son probably died*'

These verification clitics seem to be mutually exclusive with the aspect suffixes in D, but they are not marked for gender as most of the aspect suffixes are.

The verification system in J is the best documented of all (R. Campbell, 1976). It consists of a set of 17 suffixes, one of which is obligatory on main declarative verbs. They indicate degree of responsibility assumed by the speaker, source of information, and speaker evaluation, and in some cases include a tense component or a distinction between accomplished and unaccomplished action. Many of the forms are marked for gender agreement with either the subject or object of the clause (3.14). They are often verb-final, but are followed by thematic/perspective suffixes when these occur (3.9).

Some forms and examples are (feminine forms first): -maro/-mari 'EYEWITNESS, REMOTE PAST'; -mete/-mata 'SUPPOSITION'; -mone/-mona 'HEARSAY; ACCOMPLISHED'; -bone/-bona 'HEARSAY, UNACCOMPLISHED' (sometimes glossed 'PURPOSE');

(155) J: a. yome oda-ra kiyoa- maro- ni

jaguar us- OBJ follow-EYEWITNESS- COMMENT

'The jaguar followed us'

b. oda-ra waka- na- ne- mete yohami

us- OBJ break-STEM CLOS-SUBJUNCT-SUPPOSIT jaguar

'The jaguar would have eaten us'

c. fadi-ra tofa- to- ka- witi-mata- mona yama- ya

wife-OBJ stuff-away-INSTR-far-SUPPOSIT-HEARSAY,ACCOMPL jungle-in

*'He must have stuffed away his wife (by means of a log) in the
jungle'*

d. me kama-ke- bone

they come-here-PURPOSE(HSY,UNACCOMPL)

'They are coming here'

As seen in (155c), it is possible for these verification suffixes to occur in sequence.

There is only a tentative report available for PM (Chapman, 1969:14), with a listing of a few forms which occur as "part of the verbal phrase ... but are not as fixed as the core affixes": bana 'PERMISSION, WARNING, ANTICIPATION'; jokoa 'NEGATIVE INTENTION'; jakaho 'POSITIVE INTENTION'; mona 'UNVERIFIED QUOTATION'. There is some similarity of forms, and possibly of meaning, with those of J.

Nine markers of verification are reported for PR: "Declarative clauses do not require an overt modal element, but may include a modal element which encodes a veracity factor to the declarative statement" (Rowan & Burgess, 48). They are mostly free forms which occur sentence-initial or after the first sentence constituent, but two of them are clitics: alitere 'AFFIRMS VERACITY'; xokotya 'RELIABLE REPORT'; alatya 'MORE CASUAL REPORT'; kala 'PROBABILITY OF VERACITY'; -ala 'POSSIBILITY OF VERACITY'; -tya 'INDISPUTABLE FACT'; tyala 'CONCLUSION, DEDUCTION':

(156) PR: a. alitere aokita

truly he says *'He is right'*

b. xoima atyo- ala waini

child THEME-POSSIBLE he-die *'It may have been that the child died'*

Modality words reported for PL occur sentence-initial (H&D Green, 16. 102) and include: wani 'MAY IT BE'; nawene 'PERHAPS'; amawka 'IT SHOULD BE'; miyé 'IT IS NECESSARY'; kabay 'IT IS GOOD THAT'; ik adahan 'IT IS POSSIBLE TO'. In W, there are two clitics and a few verb suffixes that seem to fit this category: (clitics first) -ka 'HEARSAY'; -ya 'speaker emotion'; -tua 'FRUSTRATED, IN VAIN'; -tsewe 'PURPOSIVE'; -kala 'CERTAINLY, EMPHATIC'; -mia 'CONDITIONAL, PROBABLE CONSEQUENCE'. The form -kala is identical with, and similar in meaning to, one of the PR forms listed above.

3.9 Thematic/perspective verb endings. These are reported for only two languages, J and PM (the J sources refer to them as 'PERSPECTIVE' and the PM sources as 'THEMATIC'). In both languages they consist of a small set of suffixes, which always occur verb-final and which indicate the type of information being conveyed by the sentence in relation to the discourse as a whole: primary/foregrounded v. secondary/backgrounded; dialogue v. nondialogue; establishment of topics and settings; descriptive. Most of the forms are marked for gender agreement with some noun phrase in the sentence (see 3.14 for details), and in the case of PM there is a tense component in two of the forms. One difference between the two languages is that in PM one of this set of forms is obligatory in main declarative sentences; in J the obligatory suffixes are the verification set (see 3.8), but when the thematic suffixes occur they are always verb-final. Examples can be seen, at least in their sentence context, in other sections of this paper (to give and explain their fuller discourse context would take considerably more space than can be devoted to it here). The complete sets (feminine forms first) are:

J (B. Campbell, 1973):

- ke/-ka 'PRIMARY, FOREGROUNDED INFORMATION, MAIN EVENTS'
- ra 'SECONDARY, BACKGROUNDED INFORMATION, FLASHBACK, NEGATIVE AND CONTRARY-TO-FACT CONDITIONAL STATEMENTS, EVALUATIVE STATEMENTS'
- m 'ESTABLISHMENT OF TOPIC AND SETTING, PREVIEWING A SERIES OF EVENTS'; this suffix may also be compounded with the other three forms, and it then takes the form -ma, as in -make, -mara,
-mani
- ni/-ne (not discussed in detail in the source, but its main usage is said to be in dialogue discourse; it also occurs glossed as 'COMMENT' in non-dialogue contexts, without further explanation).

PM (S. Chapman, 1979.26):

- hi/-ha 'THEME, MONOLOGUE, REMOTE IN TIME OR SPACE FROM SPEAKER WHEN USED IN DIALOGUE'
- ja/-ra 'BACKGROUNDED INFORMATION SUCH AS IDENTIFICATION, CONTRAFACTUALITY; NEAR IN TIME OR SPACE TO SPEAKER IN DIALOGUE'
- ki 'BACKGROUNDED INFORMATION SUCH AS DESCRIPTIVE, EXPLANATORY, NON-THEMATIC'.

It is surprising not to find a set of such suffixes in D, since the three languages have so much in common. Some of the D aspect suffixes have forms similar to thematic suffixes in J or PM, and occasionally the D source

(G. Koop, 1980) ascribes a discourse function to them, e.g. "The -ni/-vi ending in narrative text is used to mark high points in the narrative" (p.16); "when the first occurrence of a verb has an aspectual ending, and the second occurrence ... replaces the aspectual ending with the -a ending, it seems to signal a change of direction that the story is taking. It connects given information with new information" (p.27).

3.10 Noun class markers. D and PM have a verb prefix ka- (PM has allomorphs ki-, ko-, and ak-) which agrees with one set of nouns. This is independent of the gender distinctions which also occur in these two languages (see 3.14). The nouns do not have any overt marker of the class, but modifiers in noun phrases in which the nouns occur are also prefixed with ka- (G. Koop, 1976.3; S. Chapman, 1979.27). In D, verb agreement is specified as being with the object noun phrase; in PM, it is with a nominal phrase "in the clause nucleus", which appears to be with the object of transitive clauses and with the subject of intransitives. In D, ka- class nouns include: 'úza 'house', páshu 'river', kanúva 'canoe', varámi 'paddle', huhúka 'knife', 'ishēshedé 'bow', "and many others". Example:

(157) D: 'uza 'u-ka- navatu-aru
 house I- N CLASS-build- NONFUT *'I built the house'*

3.11 Actual v. potential mood. Only T and W are reported to have this distinction, and it is expressed principally by vowel change (see details in the introduction to s.3, where devices other than affixes are discussed).

3.12 Tense. These languages do not exhibit any evidence of a tense category in which past, present and future distinctions are found. Some of the other categories already described have a modified sort of tense component (see, for example, the J verification suffixes in 3.8 and the PM 'THEMATIC SUFFIXES' in 3.9) For PR also, it is reported that there "is not a tense system as such in Parecis, though the morpheme ene has a 'PAST' flavor and ite a 'FUTURE' flavor ... ene [a free form] is used when a certain condition or set of conditions prevails up to a certain point in time ... -ite [a verb phrase clitic] is used to refer to future time in a predictive sense" (Rowan & Burgess, 14).

The only tense marker that recurs in a group of these languages is 'FUTURE': in A it is a verb phrase clitic -ko; in J it is a nonfinal verb suffix -ba; and in T it is a clitic that occurs in verbal and other phrases -mo:

(158) J: di Ahadere noko-ra kosi- o-ne- ba- maka
 the Andre face-OBJ spank-I-STEM CLOS-FUT-after
'After Andre (returns), I will spank his (not Andre) face'

(159) T: ina- mo pih- a
 then-FUT he go-POTENTIAL *'Then he will go'*

3.13 Registration of oblique relations in the clause. In J and T there are verbal suffixes which register the presence of an oblique object relation in the clause; the oblique object itself may be expressed overtly in the clause by a noun or postpositional phrase or in the verb by a pronominal affix (in T), or it may be suppressed in the surface configuration and be present only in the underlying semantics of the clause. The forms are: in J: -ka 'INSTRUMENT' (160a, 160b); and in T: -eo/-iyeo/-'iyeo, all of which cooccur with a first or third person subject, and -ii/-iyii/-'iyii, which occur with a second person subject; the T forms, like the J, can also register 'INSTRUMENT' (161a, 161b), but in addition can register a directional with the meaning 'MOTION AWAY FROM A SPECIFIC PLACE' (161c), or a fourth person, such as a non-reflexive possessor, when there is a third person subject (161d):

(160) J: a. katoso ohare-ya tao- o-ka na- maro- mani
 shell one- INSTR shoot- 1-INSTR-STEM CLOS-EYEWITNESS-PERSPECTIVE
'I shot him with my last shell'

b. Hara fadi-ra tofa- to- ka- ne
 Hara wife-OBJ stuff-away-INSTR-STEM CLOS
'Hara stuffed away his wife by means of (a log)'

(161) T: a. lâpi Ø-yutó- x- ea
 pencil 3-write-STEM CLOS-OBLIQUE
'He writes with a pencil'

b. Ø-yutó-x-ea *'He writes with it'*

c. Ø-ahyiku- x- eo- vo mèsà
 3-draw away-STEM CLOS-OBLIQUE-REFLEX table
'He drew away from the table'

d. Ø-isú-k- op- ea há'a

3-hit-STEM CLOS-DIRECTIONAL-OBLIQUE father

'He hit his (someone else's) father'

3.14 Gender. This discussion extends beyond verbal categories to all aspects of gender. There are no gender distinctions in T (Ek Dahl & Butler, 20), and in PR and W (J. Richards, p.c.) gender agreement is restricted to distinct forms in some nominalizing suffixes. In PR, for example, one of the subject nominalizers has the forms -re 'MASC.' and -lo 'FEM.'; tetyoa-re 'one (MALE) STANDING'; tetyoa-lo 'one (FEMALE) STANDING'; the -re form is also used for "neuter gender or where gender is not in focus" (Rowan & Burgess, 97-98).

In the other five languages there are gender distinctions, and varying degrees of complexity in the systems. Nouns have an inherent gender classification, but are not themselves marked for gender in their forms, except in D and PL, and even in these two languages the marking of nouns is only partial. The nouns, however, govern gender agreement in a number of categories, each language showing a different subset of categories which are marked:

- A: demonstratives, personal pronouns, nominalizing suffixes, and both subject and object third person affixes in the verb;
 - D: demonstratives, personal pronouns, subordinating suffixes, interrogative suffixes, and aspect suffixes in the verb;
 - J: imperative suffixes and, in the main declarative verb categories, the stem closure suffix and most of the verification, and thematic/perspective suffixes;
 - PL: demonstratives, personal pronouns, adjectives, quantifiers and, in the verbal categories, object third person prefixes and suffixes and the 'INCEPTIVE' and 'DURATIVE' aspect suffixes;
 - PM: demonstratives, adjectives, intransitive subordinating suffix (but not the transitive subordinator), and the thematic suffixes in the verb.
- In PL there is a three-way distinction: masculine, feminine (both animate), and inanimate; in the other languages there is only a distinction between masculine and feminine.

Where nouns themselves are partially marked, the rules are: in D, obligatorily possessed nouns agree with the gender of the possessor noun, with -ni 'FEM.' and -Ø 'MASC.' suffixes: abapu (MASC.) and abapuni (FEM.) 'corpse'; other nouns are not marked, but there are some semantically-based generalizations, e.g. all earth related nouns, such as shiba 'rock', taburu 'valley' being feminine, and heavenly bodies, such as mahi 'sun', amuva 'stars' being masculine; in PL, masculine words usually, but not always, end in i or a: awayrri 'man', karta 'paper', and (unmarked masc.) un 'water'; feminine words usually, but not always, end in o or u: pilatno 'banana', tattu 'armadillo', and (unmarked fem.) iwanna 'knife'.

Demonstratives, personal pronouns and quantifiers agree with the nouns for which they substitute:

- (162) D: a. aru- pe ukha tu
 this, FEM.-SUBJ.RELATIONAL my daughter 'This is my daughter'
 b. tikha uza- pa akhari
 your house-SUBJ.RELATIONAL that, MASC. 'Your house is that one'
- (163) PL: a. ir ner pahapwi awayr sukohape-ne bagew- yo
 he that, MASC. one, MASC. man wash- DURATIVE, MASC. pretty-FEM.
 tumawi
 gourd bowl, FEM. 'He that man is washing a pretty gourd bowl'
 b. er no pahapu tino sukohapa-no bagew- ye epti
 she that, FEM. one, FEM. woman wash- DUR, FEM. pretty-MASC. chair,
 MASC.
 'She that woman is washing a pretty chair'

The PL examples, (163a,b), also illustrate the agreement of the adjective with the head noun in the phrase ("most adjectives agree in gender with the noun they describe" - H&D Green, 57). Examples of PM gender agreement in the noun phrase are:

- (164) PM: a. ida jomahi doro- ni
 DEMON, FEM. jaguar young-FEM. 'the young jaguar'
 b. adani hirari ka- isai va- itxa- na- va
 DEMON, PLUR. pig POSSN.-child PLUR.-small-MASC.-PLUR.
 'many piglets'

In PM only singular demonstrative forms show gender agreement (this may also be the case in A and D, the sources are not explicit; but in PL there are distinct demonstrative forms for both singular and plural gender agreement). In D, demonstrative adverbs are also marked for gender, the rules concerning the nouns that govern the agreement being the same as for the verbal categories that mark gender (see below): eza (FEM.) and aza (MASC.) 'here'; ekheza (FEM.) and akhaza (MASC.) 'there, away from speaker and hearer'. The same rules apply in D for gender agreement on subordinating and interrogative suffixes; only two subordinators show distinct forms for gender: -zape (FEM.) and -zapa (MASC.) 'hypothetical condition'; and -nizape (FEM.) and -nazapa

(MASC.) 'reason'; the interrogative suffixes are: -hi (FEM.) and -ha (MASC.) 'CONTENT QUESTION'; and -ki (FEM.) and -ku (MASC.) 'either/or'.

The J imperative suffixes, -hi (FEM.) and -ho (MASC.), and the PM intransitive subordinators, -ni (FEM.) and -na (MASC.), follow the same rules as the main declarative verbal categories regarding which nouns govern the agreement (see below).

With regard to gender agreement marked in the main declarative verbal categories, the respective feminine and masculine forms have been indicated in the appropriate subsections: 3.3 stem closure (J), 3.4 subject agreement (A); 3.5 object agreement (A,PL); 3.6 aspect (D,PL); 3.8 verification (J); and 3.9 thematic/perspective (J,PM). More needs to be said, however, on the rules as to which noun phrase governs the agreement, as there are subtle distinctions in the different languages. These are now briefly summarized and illustrated for each language in turn.

In A only the person-marking affixes are involved: prefixes are governed by the subject and suffixes by the object or indirect object (the S and O noun phrases are not always overtly expressed in the clause - see 1.1 for details and examples).

In D, gender agreement in verbal categories is governed by either the subject or the object, according to the following rules: when the subject is third person, that subject governs the agreement, whether the verb is transitive or intransitive; in the case of transitive verbs with first or second person subjects, agreement is governed by the object; in the case of intransitive verbs with first or second person subjects, the gender distinction is neutralized, with the feminine gender marker becoming the unmarked form; this unmarked form is also used to refer to mixed groups:

(165) D: a. ukha da'u pu- riza-ri

my son lie-upon-NONSPECIFIC ASPECT, MASC.

'My son is lying down'

b. u kharipene aba mavavi khazama-ru

my-younger sister fish mavavi cook- NONSPEC.ASPECT,FEM.

'My younger sister cooked "mavavi" fish'

c. pashu u- puvi- hi

water(FEM.) I(MASC.)-drink-DISTRIBUTIVE,FEM.

'I drank water'

- d. himeka sha- 'u- na- ri
 manioc(MASC.) peel-1(FEM.)- STEM CLOS-NONSPECIFIC ASPECT,MASC.
'I am peeling manioc'
- e. haha- ta-ru
 laugh-2- NONSPEC.ASP.FEM.
'You (male or female) laughed'
- f. mede hiri-na- ru
 they sing-STEM CLOS- NONSPEC.ASP.,FEM.
'They (a mixed group) are singing'

In J, in nontransitive clauses the subject governs the agreement:

- (166) J: a. Nene tokome-ne
 (man's name) went- COMMENT, MASC. *'Nene went'*
- b. me fanawi tokomi-ni
 PLUR. woman went- COMMENT,FEM. *'The women went'*

In transitive clauses, when the subject is overtly expressed in the clause and the object is not, it is the object referent that governs the agreement:

- (167) J: yara me hi-kaba-te- mona- ne
 foreigner(FEM.) PLUR. 3- eat -CUSTOM-HEARSAY,MASC.-COMMENT,MASC.
'The foreigners (fem.) customarily eat (anteater, masc.)'

In the other possible situations, the sources are unsure or unclear (R.C., 1966; 1977b.11-12), but there seem to be strong similarities to the facts reported for D.

In PL, it appears to be always the subject that governs the agreement (H&D Green, 57; and see exs. (163a, b) earlier in this sub-section).

In PM, "agreement is with the subject of an intransitive verb and usually with the object of a transitive verb", but when the object is marked by -ra 'OBJ' agreement is with the subject. Where there is agreement with a clause rather than with a noun the feminine form is used (Chapman, 1973.11).

Chapman elsewhere states that a "deleted nominal phrase still governs the

number, gender and person agreement that it would have had had it been overtly stated" (Chapman, 1979.4). This seems generally true for all the languages discussed here (but see above for J where, by implication, there may be a special rule applying when either the subject or the object is overtly expressed and the other is not).

In PL, there are other noun classifications which interact with the gender system in governing agreement. These relate to: tangible v. intangible; and animate v. inanimate (for tangible only) (H&D Green, 58-60). There is also the special noun class marker ka- which occurs in D and PM, and is outside of the gender system (see 3.10).

The Pre Andine Arawakan languages of Peru do not seem to have such complex gender agreement patterns as are general in some of the Brazilian languages; they are closer to the less complex system of Apurina, as might be expected. Of the three language groups discussed by Wise (forthcoming), Amuesha appears not to have gender distinctions or marking at all. In Piro and the Campa languages, gender marking appears to be restricted to personal pronouns, including both free forms and subject and object verb affixes (2, and 15-16 for examples of verbs), demonstrative pronouns (4), and adjectives (10). In the section on derivation, there are two examples of nominalized verb forms with suffixes that are glossed for gender, but there is no discussion, and examples of many other derived forms do not have any indication of gender (8-10).

3.15 Auxiliary verbs. Nothing is reported in the way of auxiliary verbs for PL and W. For A, there is a reference to "verb plus auxiliary" in Pickering (undated, 12), but no further details are given. D, J, and PM have auxiliaries that are similar in form and function, and PR and T have other kinds of auxiliaries.

For the three languages which have similar forms, the PM sources provide the clearest documentation. There are two forms, ni and hi, which cooccur with different sets of main verbs, but have the same function and meaning, 'be', 'do'; this is specifically described for ni (Chapman, 1978.29-30): ni can function as an inflected pro-verb, following a main verb uninflected root:

(168) PM: Okojoa-a bada bi- ni- 'a- ha ada abaisana

Okojoa-ERG work 3ERG- AUX-TRANSTVZR- THEME,MASC. DEMON fish

'Okojoa (fem.) worked the fish' (i.e. she prepared it for cooking)

The form ni has two other functions: (i) nominalizer of some intransitive verbs: bada 'to work' + ni --> badani 'work'; and (ii) a main verb meaning 'say':

(169) PM: ni- hi 'ida gamo
 say-THEME, FEM. DEMON woman 'The woman said'

The form hi has a special usage in passive constructions: it cooccurs with, and follows, a dependent form of the main verb that always has the intransitive subordinating suffix (see 3.1 for passive):

(170) PM: bajaranah vahabini oni ridani-'a- ni hi- ja
 bone maybe DEMON dent- COMPLET-DEP, INTRANS. AUX- BACKGROUND INFO.
 'Maybe it was dented by a bone'

In this case the main verb is inflected for aspect.

The same form ni occurs in D as an auxiliary, but both the main verb and the auxiliary can be inflected, with the person markers occurring on the main verb (G. Koop, 1976:26-27, who adds that further study is needed with regard to which inflections occur on which verbs). In J, there is no statement in the sources concerning auxiliary verbs, but there is an example in R. Campbell (1977b:4) of the form na 'do' functioning similarly to the PM auxiliary ni. See also s.3.3 for the D forms -na and -hi 'VERB CLASS MARKER', and the J forms -na (FEM.) and -ne (MASC.) 'STEM CLOSURE', which I provisionally regard as inflected auxiliaries.

PR has two auxiliaries which precede the main verb: xane 'go' and tyoa 'come'. The auxiliaries are inflected for person of the subject, but do not appear to take inflectional suffixes; the main verbs are inflected for person and with the usual set of suffixes. The two forms also occur as main verbs (Rowan & Burgess, 66-67):

(171) PR: a. Ø-xane Ø-kola- tya mairoka
 3-go 3-bring-HABITUAL manioc 'He has gone to get manioc'
 b. no-xani kawalo n-iyā
 1- go horse 1-buy 'I am going to buy a horse'
 c. Ø-tyoa halaki-sene
 3-come leave- 3 OBJ 'He came and left it'

T has two auxiliaries which follow the main verb: the intransitive form kôe 'be', and the transitive form kixo 'cause to be'. They are inflected for person and can occur with at least some suffixes. The main verb seems to be inflected. Both forms can occur as main verbs meaning 'say':

- (172) T: a. piho' Ø-kôe
 go 3-be '*He has gone*'
- b. xe'o n-gôe n-gipohêo
 stand 1-be 1-wash '*I remained standing to wash (clothes)*'
- c. ikoko' Ø-kixo- a
 hang 3-cause to be-3 OBJ '*He caused it to be hung/he hung it*'
- (Bendor-Samuel, 112; Butler, 1977.87-90).

4. Coordination. Coordination of clauses and phrases is mainly by juxtaposition in all eight languages. For A, Pickering (1973a,b) reports that there can be overt markers for conjoining phrases, but not for clause/verb phrase coordination, which is always by juxtaposition. The D sources refer only to phrase coordination, which is by juxtaposition alone (G. Koop, 1977.3):

- (173) D: u-kha da'u u-kha tu mede Ø- vada- ru
 1-POSSN son 1-POSSN daughter they 3PL-sleep-NONFUT,FEM.
 '*My son and my daughter are sleeping*'

The J sources refer only to clause coordination, which is also always by juxtaposition. In the other five languages, there are some overt markers, but juxtaposition is still the predominant form of clause coordination; examples of juxtaposition are:

- (174) PL: ir iwe atit, ir huke kuhe agay a- kak
 he took pepper, he poured into intestines it-with
 '*He took peppers and poured their juice into the intestines*'
- (175) PM: 'a-ki'dama- hi 'a-ka- bodi ka- paha- 'i- hi
 we-embark- THEME we-canoe-mouth canoe-water-COMPL-THEME
 '*As we got into the canoe, it filled with water*'
- (176) T: ya ra'a puhi'koene sukuyo, noeso-a ukoe
 after this appeared bird, saw- him fox
 '*At that moment the bird appeared and the fox saw him*'

In PM, several overt markers can be used to mark coordination or subordination: kaba'i 'while', naothinia 'after', kaimoni 'purpose'; the clause which precedes the marker is always semantically subordinate to the other clause (which usually follows, but in the case of kaimoni precedes, the subordinate clause), and it is also more often grammatically subordinate, this being marked by the verb-final dependent suffix; sometimes, however, the preceding clause is grammatically independent, this being indicated by the verb-final 'theme' suffix (see 3.9), and this results in a conjoining of two main clauses:

(177) PM: 'a-ka- 'ajihi- 'iana-hi kaba'i kha- ra- foni-siaga- ha
 we-canoe- leave- again-THEME while move-down-port-behind-THEME
 ada Sebastião
 DEMON Sebastião

'While we were leaving again by canoe, Sebastião came down to the port'

One overt marker in PM only conjoins independent clauses: -vaha 'if (CONTRAFACTUAL)', but the 'theme' suffix of the preceding clause is always -ja (see 3.9):

(178) PM: 'o-isa- ri- ja vaha 'o-o- kha- hi
 1- child-NEG-BACKGROUND CONTRAFACT 1- direction-move-THEME
 ba'ai Ezilda vakadi-ani- a
 older sister Ezilda their- POSSN-COMITATIVE

'If I didn't have a child, I would have gone with older sister Ezilda and them'

A wide range of semantic relations can be expressed by conjoined-clauses in PM: temporal (simultaneous and sequential), purpose, adversative, cause-effect, conditional, contrafactual, concession, and explanation (Odmak, 1969; Chapman, 1973).

In PL, both overt markers and juxtaposition are used as conjoining devices; overt markers express adversative (179) and purpose relations, while juxtaposition is used to express sequential (181), purpose, cause-effect, and adversative (180) relations:

(179) PL: nah hiyap-ri bawkata ir ka hiyap-un
 I see- him but he NEG see- me
'I see him, but he doesn't see me'

- (180) PL: irkis himek-wi ne kawokwine ka himak ne yit ka himak
 they slept-together that jaguar NEG sleep that deer NEG sleep
 *'They slept together but, in fact, neither the jaguar nor the deer
 really slept'*

Wise and Green (1971:275) give examples of complex embedding in conjoined structures. They also show that the subject nominal can be omitted in the second and subsequent clauses (this also occurs in some of the other languages, but it is more significant in PL, where subject pronouns are always free, never bound to the verb) (181), but that the verb phrase is never omitted, but is repeated in each of the conjoined clauses, even if it is identical in form (182):

- (181) PL: er kanikaw sukuhapano ru- mewkan
 she got up washed all her-dishes
 'She got up and washed her dishes'

- (182) PL: ... ne kawokwine ka himak ne yit ka himak
 that jaguar NEG sleep that deer NEG sleep
 '... neither the jaguar nor the deer slept'

With reference to verb phrases in conjoined structures, Pickering (1973b:2) expressly states that in A these are never omitted, and I have not seen examples of verb phrase omission in any of the other languages. Subject nominals are often omitted, but this is a regular feature of Arawakan languages, and not confined to coordinate constructions (see s.1).

In PR, conjoining of phrases is always by simple juxtaposition, without overt markers (Rowan & Burgess, 60-61, 75); coordination of clauses is mainly by juxtaposition, but two overt markers are sometimes used: hoka 'and'; and xakore 'but':

- (183) PR: Jinikalore ais- ene nis- ene
 Jinikalore 3-kill-OBJ 3-eat-OBJ
 'Jinikalore killed them and ate them'
- (184) PR: xiso-ta- ite xa-baka-tene hoka nomani taita waya xa-ha- hena
 you- SPEC- FUT 2- pay- OBJ and 1-for only ipecac 2- work-PROGRES-
 SIVE
 'You are going to pay them and then you will work at 'ipecac' for me'

(185) PR: kaminhao atyaha xakore maisa kaokita

truck he-wait but NEG it-come

'He waited for the truck, but it never came'

Juxtaposed clauses in PR are said to be "linked by intonation contour" (idem, 24).

In T and W, coordination of both phrases and clauses can be by juxtaposition or by overt markers.

The patterns of coordination in these eight languages are similar to those reported by Wise (forthcoming) for the PreAndine Arawakan languages of Peru. She notes one feature, which is not specifically described in the sources for the Brazilian languages, but which occurs occasionally in the examples: "a main verb and a 'sentential complement' are encoded by juxtaposing coordinate clauses rather than embedding the complement" (48). In (186), there are two levels of juxtaposition, the first expressing simple coordination, 'likes ... and wants ...', and the second expressing a 'sentential complement' followed by main verb, 'wants to eat':

(186) PR: mayaseta alabaxola, kanakaira aokowita

he-likes rapadura, he-eats he wants

'He likes 'rapadura' and wants to eat some'

There are, however, some special ways of signalling (sentential) object complements other than simply by juxtaposition (see 5.3).

5. Subordination. I begin this section by presenting types of nonfinite nominalized constructions that have been reported (5.1), since these are the principal means of expressing relative clauses in most of these languages. After going on to treat relative clauses (5.2), I describe other types of subordinate clauses (5.3). For these latter, it is often difficult to discern any clear distinction between finite and nonfinite forms. Sometimes it is not easy to distinguish subordinate and coordinate constructions, especially in T.

5.1 Nominalizations. There is nothing reported about nominalized constructions in the sources for D, J, and W, and very little for PM. The sources for the other four languages show several different forms of nominalization, including subject/agent nominalization (A, PL, PR), object nominalizations (A, PL, PR), action, or thing associated with an action, nominalizations (PL, PR, also PM), instrument/place nominalizations (PL, PR, T), and two other forms, time and "non-specific", reported only for T. The foregoing relate to the nominalizing of verb stems; adjective nominalizations are also reported for A, PL, and PR.

Nominalized constructions function as modifiers in noun phrases or as constituents of the clause. There are distinct gender forms for at least some of the nominalizing suffixes in A and PR (see 3.14), also in some W nominalizations (Joan Richards, p.c.). Most nominalized forms are marked for possession by a person-marking prefix and/or a preceding genitive noun (phrase), but a few non-possessed forms of nominalization are also reported:

a) Subject/agent nominalization:

- (187) A: ny-karota-kary y-txawa
 1- wound- NOMLZR(MASC) 3-ESSIVE
 '*He is the one who wounded me*'/'*He is my wounder*'
- (188) A: ny-ma- karota-katy y-txawa
 1- NEG-wound- NOMLZR(MASC) 3-ESSIVE
 '*He is the one who didn't wound me*'
- (189) PL: duwis-atya
 kick- NOMLZR '*kicker*'
- (190) PR: i-x- ityoka-se
 3-SUBSTVZR-cut- NOMLZR '*the one who cut it*'

b) Object nominalization:

- (191) A: ny-karota-kyty y-txawa
 1- wound- NOMLZR(MASC) 3-ESSIVE
 '*He is the one whom I wounded*'
- (192) PL: kannuh-kage
 teach- NOMLZR '*one who is taught/student*'
- (193) PR: i-x- ityoka-la
 3-SUBSTVZR-cut- NOMLZR '*what he cut*'

c) action, or thing associated with an action, nominalization:

- (194) PL: i- huk-ka
 NONPOSSD(?)-cut- NOMLZR '*(act of) cutting*'

- (195) PL: ax- ka
eat-NOMLZR 'food'
- (196) PR: i-x- ityoka-ka
3-SUBSTVZR-cut- NOMLZR 'his getting cut'
- (197) PM: kodi-kana- i
1- bathe-NOMLZR 'my bath/my bathing' (This is the only nominalization I have seen for PM, and it seems to be restricted to intransitive verbs)

d) instrument/place/time nominalization:

- (198) PL: i- perte- tet (ipertet)
NONPOSSD(?)-see- NOMLZR 'eye glasses/thing for seeing'
- (199) PR: i-x- ityoka-kala
3-SUBSTVZR-cut- NOMLZR 'thing used for cutting'
- (200) T: óvo- cu
live/be-NOMLZR 'place where he lives/his house'
- (201) T: ápee quémii- cu
exist you hear- NOMLZR 'time when you heard'

(e) non-specific nominalization:

- (202) T: ápee hóyeno xúna- ti
exist man strong-NOMLZR 'there was a man who was strong'
- (203) T: imóko-ti
sleep-NOMLZR 'one who is/was sleeping'

f) adjective nominalization (see also T (202)):

- (204) A: manēē- ty
swampy-NOMLZR 'swamp'
- (205) PL: a-wah-ka
?-hot-NOMLZR 'heat'

(206) PR: kiya- re (kiyere)
 black-NOMLZR 'black one'

5.2 Relative clauses. Pickering (1977a) shows that A expresses the equivalent of a non-restrictive relative clause by means of a copular-equative clause, which modifies a constituent of the immediately preceding clause. Both clauses are grammatically independent clauses:

(207) A: kyky apopeka, nota karota-kary y-txawa
 man arrive-PERF, 1 wound- NOMLZR(MASC) 3-ESSIVE
 'A man has arrived; he is the one who wounded me'

The only kind of relative clause reported for W is similarly non-restrictive and is also expressed by an independent clause (not necessarily copular-equative) which modifies a constituent of the preceding clause (Richards, 1972. 15):

(208) W: Kuamutí kati-i, néží tumáa áitsu-i
 Kuamutí this-?, he 3-make us- ?
 'This is K, who made us'

Restrictive relative clauses are usually expressed by nonfinite nominalized constructions. In PL, there is also a finite form, and in PM the only form of relative clause reported is what I consider a finite form (the verb has the suffix *-ki* 'NONTHEME', one of the set of thematic suffixes which occur in main clauses - see 3.9):

(209) PL: ner ku- pagiye kehne inin hawkitnene ka- hiyerima
 that EMBED.CLITIC-who do this evil NEG-person
 'That one who does this evil is not a person'

(210) PL: ku-pagiye uguku ka- atak
 ghou1 NEG-go 'Whoever is a ghou1 doesn't go'

(211) PM: trigo-ra a- vi- sa'a avakadi-ija'ari va- vai'ami-ki
 wheat-OBJ away-2PL,IMP-take 2PL- people 3PL-hungry- NONTHEME
 vakadi-moni
 3PL- for 'Take wheat for your people who are hungry'

- (212) PM: hada kha- ha kidi-vadami-ra noki-bakhia- ki
 3 SUBJ.FOC come-THEME 3- dream- OBJ see- frequently-NONTHEME
'He is coming who see dreams'

In PL, there is an embedding clitic and a relative pronoun; in PM, a question word functioning as a relative pronoun sometimes occurs (Chapman, 1976.2), but no examples are cited. In both languages, relative clauses are either headless (210, 212) or follow the head noun (209, 211); this is also the norm for nonfinite, nominalized relatives, although the reverse order, Rel.Cl.-Noun, is reported as a less frequent option in PR (see below). (the reverse order option is not specifically excluded for the other languages, but no statement is made, nor examples given, in the sources). The PL and PM examples (209) - (212) all illustrate subject relativization. Chapman (p.c.) refers also to object relativization taking the same basic form in PM; she does not offer any PM examples, but says that "in a sentence such as 'I saw the snake which Paulo killed' the underlined embedded clause has a -ki margin" in contrast with the complement clause in 'I saw Paulo kill the snake' in which the dependent suffixes -vini 'DEP.TRANS.' or -ni/-na 'DEP.INTRANS.' would occur. For PL, Wise & Green (1971.274) give one example of a locative relativization:

- (213) PL: ku kiney irri apuh, pis ewk wahk ta ri-pit
 EMB.CLITIC where 3SG buried, 2 bring wank-seeds there 3- on
'One brings wank seeds (to put) on him there where he is buried'

In the nonfinite, nominalized constructions which function as relative clauses, relative pronouns do not occur, these being replaced by the nominalizing suffix. In A, PL, and PR, both subject and object relativization occurs, the two forms being distinguished by the particular nominalizing suffix used (see (187)-(193)). Other examples, showing more clearly the relative clause function in relation to the main clause and noun phrase head, are:

- (214) A: kyky nota karota-kary apopeka
 man 1 wound- NOMLZR arrive-PERF
'The man who wounded me has arrived'
- (215) PL: tamanwa, nepnik kawokwine pi-umepten
 anteater, come jaguar 2- killer
'Anteater, a jaguar who will be your killer is coming'
- (216) PR: ena, hatyo xanete-re kalikini
 man, that 3-go- NOMLZR today *'The man, that one who went today'*

(217) PR: no-hakakoa-ni- hare, belaxilero, imoti taita no-babera-nixi
 1- equal- POSS-NOMLZN, Brazilian, nonIndian only 1- paper- POSS
 wayita, n-onexa-li wayita
 he-sees, 1-water-POSS he-sees

'The one who is my equal, the Brazilian, the nonIndian, sees my documents and sees my waters'

The PR ex. (217) shows the less frequent order of relative clause preceding the head noun (belaxilero imoti taita); it might be argued that this is a case of three head noun phrases in apposition, rather than a relative clause modifier followed by two noun phrase heads.

For D, G. Koop (1980.33-35) reports that the suffix -de 'ADJECTIVIZER' "changes an independent clause into a relative clause" and that the head noun which the relative clause modifies is not obligatory. The suffix -de is a more general marker of adjectives. The same form occurs for both subject (218) and object (219) relativization:

(218) D: Pukheve ka- bubi- de pavi u-vatha- miti- hi
 Pukheve N-CLASS-make pieces-ADJVZR vine 1-lay down-ITERAT-DISTRIB

'I lay down a 'pavi' vine back to the ones (jaguars) who tore Pukheve to pieces'

(219) D: kurumanu abuni Mishiha ka- kana- de u-taphizi-aru
 (tree species) friend Mishiha chop-INCLUS-ADJVZR 1-pass- NONFOC(FEM)

'I passed the 'kurumanu' tree that friend Mishiha had chopped down'

Both headless relatives (218) and sequences of N-Rel (219) occur with both subject and object relativization.

The only reference to relative clauses in the J sources, an oblique one in B. Campbell (1973.23), shows that a relative clause can occur either headless (221) or following a head noun (220); these are the only examples and they are of object relativization. The only marker of subordination appears to be absence of a theme/perspective suffix (see 3.9):

(220) J: wafa o-karaboa so- na- maro- m
 monkey 1-blowgunned fall-STEM CLOS-EYEWITNESS-PERSPECT

'The monkey that was blowgunned by me fell'

(221) J: o-karaboa so-na-maró-m

'(The one) blowgunned by me fell'

T forms relative clauses by adding the non-specific nominalizing suffix -ti to the verb (see 5.1), and this may result in either a headless relative or one in which the relative clause follows the head noun. I have seen examples only of subject relativization for T:

(222) T: enepone xúna- ti, pí'aa xe'éxa

that one strong-NOMLZN, two children

'That one who is strong has two children'

5.3 Other types of subordinate clauses. Object complement clauses, including indirect speech, are mentioned briefly in the sources for four languages. For A, Pickering (1973b) notes that "indirect discourse is expressed either as a nominalized construction or as direct quotation". Chapman (p.c.) states a contrast in PM between an object complement clause such as 'I saw Paulo kill the snake', where the verb of the embedded clause has a dependent suffix, and a relative clause such as 'I saw the snake which Paulo killed', where the verb of the embedded clause has the suffix -ki 'NONTHEME', which is a member of the set of thematic suffixes that normally occur in the verbs of main clauses (5.2). In J, indirect quotation complements differ from direct quotation in that the embedded complement lacks a 'theme/perspective' suffix, thus marking it as a dependent clause. Finally, in T, all object complement clauses, including direct speech, are marked by the suffix -ea 'REFERENTIAL/OBLIQUE' (see 3.13 for other functions and variant forms of this suffix):

(223) T: lúmingu pihôti éto'oco-nu píh- ea- mo

Sunday past 3 told- 1 3 go-OBLIQUE-FUTURE

'Last Sunday he told me that he would go'

Other subordinate clause types occur, directly related to a main clause, to express a range of semantic categories: temporal, conditional, contrafactual, purpose, cause/reason, concessive, gerundive; only a sub-set of these categories is actually reported for any one language. Very little on subordinate clauses is found in the J and W sources. In J, there are references to indirect speech complements (see above) and to contrafactuals (B. Campbell, 1973.11-12), in which the first clause, expressing the condition, is marked by the verb suffix -mani, and the second clause, expressing the hypothetical consequence, has the verb-final suffix -ra (cf. 3.9):

- (224) J: me o-wa- mani me ta- o-bisa- te- ne- ra
 3PL 1-see- if 3PL shoot-1-instead-CUSTOM-SUBJUNCT-CONTRAFACT
'If I had seen them, I would have shot them'

For W, there is a reference in Richards (1969) to hypothetical condition/ contrafactual constructions as consisting of a sequence of two dependent clauses, both of which are marked by the enclitic -mia 'CONDITIONAL', which usually occurs on the verb, but can be attached to the preceding negative particle:

- (225) W: n-iya-mia meneke n-akama-mia
 1-go- COND later 1-die- COND
'If I went in a little time, I would die'

- (226) W: aitsa-mia tuuka-ta- wɪ akama-mia
 NEG- COND drink-CAUS-3 die- COND
'If she had not foster-fed him, he would have died'

For A, Pickering (undated) states that dependent conditional clauses usually precede the main clause. The only other types of dependent clause he reports are gerundive constructions, which he says are inflected like a verb but function as noun phrases, and sequences of uninflected verbs that may follow the main clause and are dependent on it for the nuclear constituents. The only examples available are found in Pickering (1978), showing only conditional clauses and gerundive constructions, and lacking the main clauses:

- (227) A: nota awa-ynia
 1 be- if/since *'If/since I am (here), ...'*
- (228) A: ny-apa- ini- ry
 1- fetch-GERUND-3 *'My fetching him ...'*

D has the following subordinating suffixes (G. Koop, 1980.22-39):
 -'a 'GERUND', -za 'TEMPORAL SEQUENCE', i.e. 'after'; -vehina 'PURPOSE';
 -zape/-zapa 'HYPOTHETICAL CONDITION/CONTRAFACTUAL'; -nizape/-nizapa 'CAUSE/
 REASON':

- (229) D: kunaha-zipha- kusha- mita- 'a adami ime'eni tu- khi-
 swim- in water-across-ITERATIVE-GERUND hill big 3PL- MOTION
 mura- nava
 uphill-PROGRESSIVE *'Swimming back across, they went up a high hill'*

- (230) D: bani tei- 'u-na- phiri-zape zei-'u-ni- meri-
 game shoot-1- VB.CLASS-NEG- COND run-1- VB.CL.-downstream-
 mita- tivaha
 ITERATIVE-INTENTION

'If I don't shoot any game, I'll run back downstream'

For PL, Wise and Green (1971.271-273) distinguish two types of subordinate clause in addition to the nominalized and relative clauses already described: complex, which has a subordinating conjunction occurring clause-initial (231); and participial, in which there is no conjunction and the subject of the clause is omitted, even when it is not coreferential with the subject of the main clause (cf. 232 and 233). The only examples given are of temporal clauses, and the subordinate clause precedes the main clause:

- (231) PL: sema ir danuhha, ir padak amadka imasiwnti

when he arrived, he threw it-on grill

'When he arrived, he threw it on the grill'

- (232) PL: tipikka, irkis danuh ta agi-t makagapye

having-gone, they arrived there it-to dry-place

'After they had gone, they arrived at the dry place'

- (233) PL: danuh aterge yuyan yuyan kakabeypwa ku kiney er ru- mew

arriving there maggots maggots everywhere EMB where she her-body

apuh

buried

'When he arrived there, maggots were all over where she had been buried'

In both complex and participial types, the subordination is often indicated by the reduplication of the final consonant of the last word of the subordinate clause and the addition of the vowel a (see (231) and (232), and cf. danuh in the main clause of (232) with danuhha in the subordinate clause of (231); in (233), danuh is not the last word of the subordinate clause). Under certain conditions, however, the subordination is not overtly indicated.

For PR, Rowan and Burgess (1979.28-31) report four types of subordinate clause, signalled as such by either a verbal suffix/clitic, or a conjunction,

or both, and having apparently a finite/indicative form of the verb: hypothetical condition, in which both the subordinate and main clauses have the enclitic -ya attached to the first phrase and there is optional occurrence of the conjunction hoka 'then/and' between the clauses (234), also (235) for a contrafactual use of the same construction; (exclusively) contrafactual, in which the first clause, expressing the condition, is introduced by the particles ekoiya (positive) or ekoiy-awa (negative), and the second clause, expressing the hypothetical consequence, has the enclitic -ya 'CONDITIONAL' attached to the first phrase, and there is optional occurrence of the conjunction hoka between clauses (236); reason-circumstance, in which the conjunction tyare 'since' occurs medially in the subordinate clause, and that clause may precede or follow the main clause (237); and purpose, of which there are two types, one marked by the particle maheta 'PURPOSE', which occurs clause-final (238), and the other marked by the particle ira 'PURPOSE', which occurs clause-initial (239), and both of which follow the main clause:

(234) PR: xaseka-ya atyo hoka xabakatya-ya atyo nokolohoni

2-dig- COND THEME then 2-pay- COND THEME my-forest

'If you dig in my forest, you'll have to pay me'

(235) PR: iseni- ya enomana hoka maisa-ya ehareta

3-give-COND him-to then NEG- COND be-angry

'If he had given it to him, he would not have become angry'

(236) PR: ekoiy-awa hokaka hoka xane-ya

CONTRAFACT-NEG 3-sick then 3-go-COND

'If he hadn't been sick, he would have gone'

(237) PR: ali waikate tyare atyo natyo hoka nehali- ya atyo

here landowner since THEME 1 then 1-angry-COND THEME

'Since I am the landowner here, I would be angry (about it)'

(238) PR: noxani maseneko kete namalaka maheta

1-go field manioc 1-pull PURP

'I'm going to the field to dig manioc'

(239) PR: xama korenase ira nokatolikoare

give gun PURP 1-defend-REFLEX

'Give me the gun to defend myself with'

In PM, subordinate clauses are clearly marked by one of the dependent verb suffixes: -vini 'DEP.TRANS.' or -na/-ni 'DEP.INTRANS.'; they may also have one of the overt markers which function as conjunctions in coordinate constructions: kaba'i 'while', naothinia 'after', kaimoni 'PURPOSE' (see s.4), all of which occur final in the subordinate clause. Subordinate clauses usually precede the main clause, but purpose clauses follow the main clause. Chapman (1973) and Odmark (1969) list a large number of semantically-distinct subordinate relations, the principal being: temporal (240, 241); purpose (242, 243); reason (244):

(240) PM: 'a- ka- kha- no- bakosi-na 'a- gai- mora- ha-'i-
 1PL-canoe-MOTION-arrive-near- DEP.INTRANS. 1PL-MOTION-uphill-?- COMPL-
 hi
 THEME

'(After) we arrived by canoe at their port, we climbed up the hill'

(241) PM: 'a- kana- na naothinia 'a- 'abosiha- 'i- hi
 1PL-bathe-DEP,INTRANS after 1PL-change clothes-COMPL-THEME

'After we bathed, we changed our clothes'

(242) PM: 'o-ka- araba-ha-ki- ho kivi- ra 'o-ka va-
 1- canoe-fish- ?- NONTHEME-1 farinha-OBJ 1- DITRANS- COMIT-
 abosi- hi- ha-vini
 exchange-DITRANS-?- DEP, TRANS

'I am going fishing (so that) I can buy some farinha'

(243) PM: 'o-na- va'i- sohi- hi ida Maria bi-sa- vini
 1- CAUS-liver-straight-THEME DEMON Mary 3- bring-leave-DEP,TRANS
 kaimoni
 PURP

'I advised Mary so that she would bring and leave it'

- (244) PM: jokoá bi-ha- ri- hi ida hotairi va'i- ni namani
 NEG-INTENT 3- eat-NEG-THEME DEMON deer liver-FEM top of
 na- 'bana- ni hi-ni
 CAUS-pain- DEP,INTRANS(FEM) be-DEP,INTRANS(FEM)

'She won't eat the deer, her liver being caused to hurt'

For T, Butler (1978) reports three basic types, which express a (semantic) subordinate relationship, but which are difficult to categorize grammatically as either subordinate or coordinate; there are finite verb forms in the potential mood throughout, and (in some cases, optional) conjunctions/subordinating particles: conditional/temporal (245), in which clause-initial enepo 'if/when' is optional; temporal only (246), similar to the first type, but having the particle ínamo 'FUTURE SEQUENCE' occurring between the clauses; and contrafactual (247), in which the enclitic -ni occurs in both clauses in the sequence; when there is a hypothetical element involved, the particle ma also usually occurs:

- (245) T: (enepo) aye'éca- a, nico-â-ti- mo ûti
 if/when 3-cook-POT-3, eat- 3-PROGRESS-FUT 1PL
'If/when she cooks it, we'll eat it'
- (246) T: (enepo) aye'éca- a ínamo nicâa ûti
 when 3-cook-POT-3 FUT.SEQ eat-3 1PL
'When she cooks it, then we'll eat it'
- (247) T: enepo-ni aye'éca- a, ma- ni nico-â-ti ûti
 if- CONTRAFACT 3-cook-POT-3, HYPOTHET-CONTRAFACT eat- 3-PROGRESS 1PL
'If she had cooked it, we would have eaten it'

The conjunction ínapo 'otherwise/or else' expresses the alternative result of conditions other than those stated:

- (248) T: aco veca yâye ínapo nainjâ- a
 NEG 3-pass here or else 1-see-POT-3
'He didn't pass by here or else I would have seen him'

Another conjunction, ímócone 'until', occurs with the verb in the potential mood when the action is not yet realized (249), and in the actual mood when accomplished or habitual action is referred to (250):

(249) T: aco-mo imánga imócone seâpa
 NEG-FUT 1-sleep until 3-arrive-POT
'I won't sleep until he arrives home'

(250) T: aco imánga imócone seôpo
 NEG 1-sleep until 3-arrive-ACT
'I didn't sleep until he arrived home' or 'I don't sleep until he arrives home'

In the context of Brazilian Arawakan languages, these last three examples of T show one unusual feature: the (non-purpose) subordinate clause follows the main clause (if, indeed, it is right to regard them as cases of grammatical subordination).

The predominant characteristics of these "other types" of subordinate clause in the eight languages appear to be: a blurring of the distinction between finite and nonfinite subordinate clauses, although it should be noted that PM clearly distinguishes subordinate (with verb-finite dependent suffix) and main (with verb-final theme suffix) clauses; except for purpose clauses, the subordinate clause usually precedes the main clause, although the exceptions in T should be noted; and verb suffix or enclitic is the principal marker of subordination (being found in all the languages except PL and (the poorly documented) J), although particles/conjunctions are also found in PL and T (clause-initial), PM (clause-final), and PR (clause-initial, -medial, and -final); in PL there is also absence of overt marker and marking by reduplication of final consonant plus the vowel a.

6. Concluding summary.

In conclusion, I summarize the characteristics of these eight languages from the perspective of the evidence they provide for a better understanding of intra-Arawakan genetic relationships (6.1) and diachronic change (6.2), and of cross-genetic areal characteristics of Amazon languages (6.3).

6.1. Intra-Arawakan relationships. Before discussing the sub-groups within the family, it may be well to note the features which are common to nearly all the Arawakan languages of Brazil: the particular set of categories which are encoded in the verb and, more generally, the morphological complexity of the verb; gender agreement patterns, with complex rules for governing noun phrases (Terêna is a notable exception); the combination of juxtaposition and conjunctions for coordination of phrases and clauses; formation of restrictive relative clauses predominantly by means of nonfinite, nominalized constructions, either headless, or following the head noun phrase which they modify; and finite and nonfinite forms of subordination other than relative clauses, with subordinating suffixes, clitics, or particles. These are, for the most part, features which distinguish them from Amazon languages in other families, although there are some similarities to be found (see 6.3).

The morphosyntactic characteristics described in sections 1-5 throw some interesting light on the Voegelin & Voegelin (1977) sub-groupings of Arawakan, as listed in the Introduction. They confirm the major division between Arauan and Maipuran, but cast doubt on the sub-divisioning of Maipuran. Some of the features that distinguish the three Arauan languages (D, J, and PM) from all the others are: they have location and manner modifiers encoded as verbal suffixes, but lack the "shape of object" classifiers (3.2); they do not have a category of object-marking suffixes in the verb (3.5); the form and function of their auxiliary ("dummy") verbs are distinct from the auxiliaries found in some of the other languages (3.15); the causative prefix has the same form in the three languages: na- (3.1); the singular forms of the subject prefixes and the negative suffixes are also very similar (3.4,7); J and PM are the only languages with case-markers (2) and the category of thematic/perspective suffixes in the verb (3.9); D and PM have an identical form of noun class agreement marker in the verb: ka- (3.10); and there are similar forms of third person plural free pronouns in D (mede) and J (me) (3.4).

On the basis of the categories and their functions, and actual morphological forms, as described in the preceding sections, the five Maipuran languages fall into two groups that are somewhat unexpected in the light of the geographical facts and the V&V classification: (1) Apurinã and Palikur; and (2) Parecís, Terêna, and Waurã. The latter is not too surprising, since the three languages are relatively close geographically, and some of the similarities may be due to borrowings rather than close genetic ties. Apurinã and Palikur, however, are geographically far apart, and there is no record, so far as I know, of contact between the two groups in the past few centuries.

The A and PL similarities are: they are the only two languages which have gender marked in the entire (third person) pronoun system, both free forms and the bound verbal affixes that agree with subject and object (3.4, 5, 14) (PL, however, has one more distinction than A: inanimate); they also have (but so do D and PM) a gender distinction marked in demonstratives (3.14); the primary means of signalling negation in the two languages is by a proclitic, and this serves for both sentence and constituent negation (3.7; the forms are na- (A) and ka- (PL); PM is the only other language for which a proclitic negative marker is reported, and in that language it is not the primary means of expressing sentence negation, there being also a verb suffix having this function); the forms of the passive, reflexive, and reciprocal suffixes are similar (3.1), as also are the object person-marking suffixes (3.5) and the completive and progressive aspect suffixes (3.6).

The PR, T, and W similarities are: they are the least marked of all the languages for gender, T not having gender distinctions at all, while in PR and W they are restricted to one or two nominalizing suffixes (3.14); conditional subordinate clauses are marked in both the main and the subordinate clause of the sentence, by a clitic whose form is similar in W (-mia) and PR (-ya), and again in W (-mia) and T (-ni) (5.3); verbalizer prefixes are identical: ka- 'have' in all three languages; and ma- 'lack' in PR and W (3.1); reflexive and reciprocal suffixal forms are alike, but this is the case for all five Maipuran languages (3.1); subject person-marking prefixes have similar forms in the three languages (and also in A) (3.4); PR and W share three other features:

they are the only languages with a single form of object suffix, '3SG' (3.5); they have similar forms of sentence-initial negative particle: maisa (PR) and aitsa (W) (3.7), and one identical form of modal particle: kala 'probable' (PR) and 'certain' (W); T and W share four additional features: they are the only languages with the actual v. potential mood distinction, and in both cases it is mainly signalled by vowel change in the verb (3); they are the only ones for which a medio-passive usage of the reflexive forms is reported (3.1); together with PL, they are the only ones which have the verbal category of classifiers of the shape, etc. of the object (3.2); and they have similar suffixal forms for passive: -kono (T) and -kɛna (W) (3.1).

Pickering (undated, 3) states that Apurinã appears to be most closely related to Baure (Bolivia) and Piro (Peru), sharing between 40% and 50% cognate forms with those two languages. The morphosyntactic characteristics reported by Wise (forthcoming) for Piro confirm the close tie between that language and Apurinã, this being especially noticeable in the gender agreement systems, the subject prefix and object suffix markers in the verb, and the negative proclitic for sentence and constituent negation.

6.2 Diachronic change. I will limit discussion here to change in basic word order patterns, since this is the only area where there appears to be some fairly clear evidence.

One noticeable feature is the quite different basic word orders that currently exist even among languages within the same sub-group of Arawakan. In the Arauan sub-group there are three different orders: SOV (Dení), OSV (Jamamadí), and SVO (Paumarí). In Maipuran sub-group (1) we have OSV (Apurinã) and SVO (Palikur), and in Maipuran sub-group (2) there are SOV/SVO (Parecis), VOS (Terêna), and SVO (Waurá). This diversity is not so surprising in view of the fairly well established fact that word order in main declarative clauses tends to change more rapidly than other parts of the syntax.

It leaves open the question, however, as to what is the direction of the change. There are two general characteristics that suggest the change is in the direction of a move away from an earlier SOV order. The first is seen in the constituent orders currently found in the noun and adpositional phrases of nearly all these languages: Postp, Gen-N, N-Adj. The first two are clearly associated with SOV, and the N-Adj order is almost as common with OV as with VO (see s.1). Change of basic patterns in phrases is less rapid than in main clauses, and this supports the hypothesis that the change has been from SOV to SVO, rather than the other way round. The one VOS language, T, has clearly moved the farthest, and this is reflected in the phrase constituent orders, which are generally consistent with a VO language, although there are still vestiges of an earlier pattern associated with OV (at least one postpositional form, and the two orders in noun phrases, Adj-N and N-Rel - s.1.7).

The other characteristic that points to an earlier SOV stage is the case-marking systems found in Jamamadí and Paumarí (s.2). Paumarí is particularly

relevant: it is an SVO language, but marks the subject and the object in its co-existing systems. Case-marking systems are not nearly so common in SVO languages as they are in SOV languages; and SOV languages frequently have OSV as a variant order, which explains the need to have some way of distinguishing the S and O nominals. Jamamadí is a language in which OSV (basic) and SOV are the two most common orders, and it is the object marker *-ra* that identifies the grammatical relation of the nominals. The Paumarí case markers are strong evidence of an earlier SOV stage in that language when they were needed to distinguish S and O.

It is of interest that the two languages which are currently SOV belong to different sub-groups of Arawakan in Brazil: Arauan (Dení) and Maipuran (Parecis).

The evidence from the Brazilian languages, therefore, supports the conclusions of Wise (forthcoming), which are based on the PreAndine Arawakan languages of Peru:

The three subgroups posited provide, in my view, an example of various stages of change in process as the languages move from SOV word order (Piro) to VSO (Campa and Amuesha, with Amuesha having more characteristics of VO languages than the Campa subgroup). (p.1).

One specific piece of evidence is offered for this direction of the change:

...one notes the striking lack of cognate morphemes for WH question words and negatives. In the case of the question words there are many noncognate terms even among the Campa languages. Payne (private communication) suggests that this difference among elements preposed to the verb is one evidence that they are innovations, resulting from a change in basic word order from SOV to VSO ... I conclude, therefore, that while Piro is SOV it is not rigidly so and may be moving toward a VSO order ... (p.49a).

The final conclusion regarding Piro is interesting in the light of what has happened to one of Piro's closest relatives, Apurinã, which has already moved from SOV, but to OSV. Both S and O frequently follow the verb in Apurinã (1.1), but postverbally they are also always in the order OS, never SO, which is the order (VSO) that Wise predicts as the direction in which Piro is changing.

6.3 Cross-genetic areal characteristics of Amazon languages. In Derbyshire (1979b.196), on the basis of an in-depth study of one (Carib) language and a superficial look at isolated morphosyntactic elements of eight other South American languages (which included only one Arawakan: Apurinã), I presented a tentative list of eight syntactic features that might characterize languages of the Amazon area, regardless of genetic affiliations. The present study provides the opportunity to test that list with more substantial evidence from eight Arawakan languages, and to note some other features that may be emerging as distinctive of Amazon languages.

Four items in that list receive solid support: verb agreement with Subject and Object; substitution of nominalizations for relative clause constructions; nominal modifiers following their head nouns; and lack of an agentive passive construction (PL is an exception). In addition, the prediction made in the 1979b work that the set of syntactic traits could be regarded as particularly appropriate for languages with object-initial basic word orders is also realized: OSV Apurinã and Jamamadí, as well as the less directly relevant, but significant, order of VOS Terêna.

Two other items in the list receive some support, although they relate to features not specifically dealt with in this study: use of right-dislocated paratactic constructions (see 1.3, 1.5, 1.6, and 2.2 for facts about three of the languages that point in this direction); and use of phrasal discourse (and possibly verification) particles (see 3.8).

The other two items are only partially supported by the evidence of the Arawakan languages: direct quotation replacing indirect statement; and absence of coordinating conjunctions. There certainly are conjunctions in most of the languages, but coordination is predominantly by juxtaposition of phrases and clauses (s.4). Indirect quotation is also fairly frequent, although Pickering's statement that in A "indirect discourse is expressed either as a nominalized construction or as direct quotation" should be noted (5.3), especially since this topic also is not specifically investigated in this study.

In the light of facts which are now reported about other Amazon area languages belonging to different families (Harrison (forthcoming) for Tupi-Guaraní and Gê; Doris Payne (p.c.) for Yagua, and my own work on Carib (especially Derbyshire 1979a and 1979b)), this Arawakan study highlights some other features which are emerging as characteristic of languages in the area. First, there is the complex verb morphology (more complex in Arawakan, but fairly significant also in the other language families). This is closely allied to a second trait: the high proportion of sentences which do not contain subject and object nominals, but often only a verb, giving rise to the possibility of a distinctive type "V-only" (see s.1). A third striking feature is the regularity with which one particular set of phrase constituent orders is being reported: Postp, Gen-N, N-Adj, almost regardless of what the word order is in main clauses. Finally, there is the tendency toward ergatively-organized syntactic systems. This is not so strong in Arawakan as in the other families, but there is the outstanding exception of Paumarí, and Wise (forthcoming, 3,39) reports an "absolute" voice for the Campa languages of Peru. Perhaps the most significant thing about this tendency is the drift away from ergative to accusative systems. I have noted this for Carib (Derbyshire, 1981) and Harrison (forthcoming) has done so for Tupi-Guaraní; in Arawakan it is clearly demonstrated in the contrast between Paumarí and the other languages, and the fact that the ergative case-marking in PM is almost certainly a relic of an earlier stage in that language (6.2).

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