

Trustees of Indiana University
Anthropological Linguistics

Classifiers in Tariana

Author(s): Alexandra Y. Aikhenvald

Reviewed work(s):

Source: *Anthropological Linguistics*, Vol. 36, No. 4 (Winter, 1994), pp. 407-465

Published by: The [Trustees of Indiana University](#) on behalf of [Anthropological Linguistics](#)

Stable URL: <http://www.jstor.org/stable/30028389>

Accessed: 16/03/2012 03:43

Your use of the JSTOR archive indicates your acceptance of the Terms & Conditions of Use, available at
<http://www.jstor.org/page/info/about/policies/terms.jsp>

JSTOR is a not-for-profit service that helps scholars, researchers, and students discover, use, and build upon a wide range of content in a trusted digital archive. We use information technology and tools to increase productivity and facilitate new forms of scholarship. For more information about JSTOR, please contact support@jstor.org.



Trustees of Indiana University and Anthropological Linguistics are collaborating with JSTOR to digitize, preserve and extend access to Anthropological Linguistics.

<http://www.jstor.org>

Classifiers in Tariana

ALEXANDRA Y. AIKHENVALD

Australian National University, Canberra

Abstract. This paper describes an unusual and complicated system of classifiers and agreement in Tariana (North Arawak, Brazil). Tariana has gender agreement in verb-argument constructions, and classifier agreement in head-modifier constructions. It has three subtypes of classifiers: numeral classifiers, demonstrative classifiers, and verb-incorporated, concordial, and genitive classifiers. Classifiers have anaphoric and discourse-pragmatic functions. Almost every derivational affix can be used as a classifier to mark agreement. Also, noun incorporation is used as an agreement device in head-modifier constructions, under specific discourse conditions. Thus, classifiers constitute a virtually open class of elements. The system of classifiers is very much semantically motivated. The unusual system of classifiers and agreement in Tariana provides important suggestions for a typology of classifiers, such as: (a) the existence of demonstrative classifiers as a special type; (b) the coexistence of more than one system of noun categorization used for different kinds of agreement in one language (called “split” system); and (c) the possibility of an “open” character for a system of classifiers.

1. General observations.

1.1. The structure of the present paper. This paper proposes a partial revision of the morphosyntactic typology of classifiers and concordial classes, with the help of an analysis of a particularly complicated and instructive classifier system in Tariana (a North Arawak language from the Uaupés linguistic area in Brazil).¹ In this paper I present a detailed study of a split system of classifiers, gender, and animateness in Tariana, as well as an investigation of the agreement mechanisms applying in this language that give rise to new classifiers. The analysis of these complicated systems permits the formulation of several hypotheses concerning the morphological, syntactic, and semantic mechanisms of noun categorization and their genesis.

Section 1 is a discussion of general points. In section 1.2, I present a brief sketch of typology of classifiers and noun classification. In section 1.3, I introduce “split” systems of agreement, i.e., systems that have more than one kind of agreement. Lexico-semantic properties of classifiers are discussed in section 1.4. Morphological properties are considered in section 1.5.

Section 2 discusses syntactic subgroupings of classifiers and their use as anaphoric and discourse-pragmatic devices. Section 3 treats the split gender

system and gender agreement in Tariana. Section 4 considers morphological characteristics of classifiers, together with the formal and semantic organization of classes. The possibilities of noun reclassification, which imply an open, semantically motivated character of classifiers and noun classes, noun incorporation as a classifying device, and the rise of new classifiers will be analyzed in section 5. Theoretical insights prompted by the analysis of Tariana data are given in section 6.

1.2. A typology of classifiers and noun classification. For a long time classifiers and noun classification systems have been a particular focus of interest in functional typological studies, particularly because they provide a unique insight into the mechanisms of the semantic categorization of the world by human beings. In languages with classifiers or complex noun classification systems, these are normally a central constituent of the grammar. The study of classifiers and noun classification systems is intrinsically connected with many crucial issues in modern linguistics, including noun incorporation and agreement types, among others. During the last two decades, there have been various proposals for a semantic and morphosyntactic typology of noun classificatory systems (e.g., Denny 1976; Allan 1977; Dixon 1982; Craig 1986a). Recently the general postulates of the morphosyntactic typology of classifiers and other agreement categories have been reviewed in the light of new data, especially those from previously undescribed South American Indian languages (e.g., Derbyshire and Payne 1990; Craig 1990, 1992, 1994; Corbett 1991, in which special reference is given to gender-like agreement systems).

However, the current literature is somewhat confusing as far as generally adopted definitions and concepts are concerned, and some established universals and general tendencies no longer hold. This becomes obvious when we try to apply existing concepts to an analysis of the data from "exotic" languages. For instance, it has been previously assumed that languages cannot have classifiers and gender as separate categories, and that "no example is known of a language with two distinct systems of noun classes" (Dixon 1982:220; also cf. Craig 1986a, 1986b, 1986c). In sections 1.2 and 3 below I attempt to show that this assumption does not hold for a number of languages. The reason is that some languages can have even more than two systems of noun classes or classifying morphemes (e.g., the North Arawak languages Palikur and Tariana). Moreover, the coexistence of gender as a closed grammatical agreement system based on the opposition of the semantic features \pm masculine or \pm feminine and \pm animate (which also can be more or less semantically motivated) and noun classes or classifiers is attested in a great variety of languages (see section 1.3).

The dichotomy of a concordial noun class as an "obligatory grammatical system where each noun chooses one from a small number of possibilities" and noun classification as a system in which "noun classifiers are always separate lexemes which may be included with a noun in certain syntactic environments"

(Dixon 1986:105) appears to be rather simplistic, especially in the light of data from Amazonian languages. The presence of noun classes has often been associated with an inflectional or agglutinating morphological type, and classifiers (especially numeral classifiers) were once considered a property of isolating languages par excellence—a premise that also appears to be simplistic when viewed cross-linguistically. Finally, terms such as *classifier*, or *noun classifier*, or *noun classification system* are frequently used by authors in divergent ways for different types of systems or as cover terms for any kind of system. Thus, it is not always clear what a classifier and a concordial noun class are in each particular case.

Here I shall follow, with certain corrections, the morphosyntactic typology of noun classification systems and classifiers set out in Derbyshire and Payne (1990) and Craig (1990, 1992). The basic morphosyntactic types of noun classification and classifiers, identified in terms of their prototypical functions, are the following:

- **Noun classification systems** (as in West African languages) are grammaticalized agreement systems based on certain core semantic characteristics. They are sometimes called concordial classes and include grammaticalized gender systems of the Indo-European type. Note that the degree of semantic motivation of concordial class assignment differs from language to language.² As shown in Holmquist (1991[1993]), a basically grammatical system of gender agreement can move toward a more “semantically oriented” one, as in the case of Cantabrian Spanish.

- **Numeral classifiers** are classifying morphemes prototypically attached to numerals and expressions of quantity, which may be attached to other modifiers, such as demonstratives (see Craig 1992). They are comparatively frequent in isolating languages (such as those of Southeast Asia).

- **Noun classifiers** characterize the referent nouns with which they cooccur. They typically fulfill anaphoric functions, as in Jacaltec, or discourse-backgrounding functions, as in Tuyuca (Barnes 1990) and Yagua (Payne 1990). Morphologically, they are affixes and they often have derivational functions.

- **Relational, or possessive classifiers**, also known as attributive classifiers (and sometimes confounded with genitive classifiers) appear in genitive expressions to characterize the type of possessive relationship of certain alienably possessed nouns. Their existence in Oceanic languages was first recognized by Codrington (1885).³

Examples of relational classifiers in Boumaa Fijian are given in (1) and (2) below. Fijian distinguishes between two classifiers for nonconsumable items: *o/we*, defined as “a classifier of an object which relates directly to the possess-

or," and 'e "a classifier of an object which relates to the possessor in some other way" (Dixon 1988:137).

(1) *a o-mu da'ai*

'your gun (which belongs to you)' (classifier *o/we*)

(2) *a 'e-mu da'ai*

'your gun (which will be used to shoot you)' (classifier 'e)

The existence of relational classifiers in some North American Indian languages (Yuman, Uto-Aztecan) and South American Indian languages (some Carib, Tupi-Guarani, and Je languages) is discussed in Carlson and Payne (1989). The existence of relational classifiers in Kipeá, an extinct language of the Kariri family (South America), was proposed by Rodrigues (1994). They are also found in Baniwa of Içana (Arawak) (my field data; see examples below).

• **Genitive classifiers** characterize a possessed object in a possessive construction. The basic difference between relational classifiers and genitive classifiers is that the former are connected with the kind of possessive relationship, while the latter are similar to numeral classifiers in that they "piggyback" the characteristics of a possessed entity of genitive, or possessive, constructions. The use of genitive classifiers is not restricted to inalienably possessed nouns, as is the case with relational classifiers. Both can coexist in one language. The difference between relational and genitive classifiers can be illustrated by examples from Baniwa of Içana (Arawak) (my field data, Hohôdene dialect, speaker Marcília Rodrigues). In this language relational classifiers are suffixed to alienably possessed nouns, as in (3) and (4).

(3) *nu-tfinu-ni* (relational)

1SG-dog-POSS

'my dog (the one I brought up)'

(4) *nu-tfinu-te* (relational)

1SG-dog-POSS

'my dog (the one I found)'

Genitive classifiers can be used with any noun and characterize a possessive entity, as in (5) below, where the classifier *-dapana* 'habitation' is used with the noun *pan-ti* 'house'.

- (5) *hɔje pan-ti nu-dza-dapana* (genitive)
 DEM:NF house-NONPOSS 1SG-POSS-CL:HAB

'This house is mine.'

In such constructions, the head noun is frequently omitted, in which case the classifiers may carry anaphoric and discourse-backgrounding functions. Genitive classifiers also exist in Oceanic languages (see, for instance, Rehg 1981, for Ponapean; Harrison 1976, for Mokilese), East Tucanoan languages (see Barnes 1990; my field materials), and some North Arawak languages (e.g., Baniwa of Içana, Tariana, my field data). Genitive classifiers are also known to exist in Hmong, a Miao language of China, and in some other Miao languages of the region (see Bisang 1993). They are, furthermore, attested in several Papuan languages of Southern Bougainville, such as Nasioi (Hurd 1977) and Motuna (Masayoki Onishi p.c.). The omission of a genitive classifier is possible in possessive constructions with inalienable possession in Hmong (Bisang 1993). In Papuan, Tucanoan, and Arawak languages genitive classifiers are used regardless of the opposition between alienably and inalienably possessed nouns. The general tendency is to use genitive classifiers: (a) anaphorically, and (b) predicatively, with the head noun omitted.

- **Verbal classifiers** are suffixed to the verb or incorporated into the verb form, marking agreement with a sentential constituent or indicating its presence in surface structure, as in Athapaskan and some South American Indian languages, e.g., Munduruku (Tupí), Amuesha (Arawak) (Derbyshire and Payne 1990), and some Papuan languages (see Merlan et al. forthcoming). The existence of verb incorporated classifiers seems to be one of the features in at least some of the Australian languages of Arnhem Land (e.g., Tiwi, Rembarrnga, Gunwinggu, Gunbarlang, Ngandi, and Anandilyakwa; on this phenomenon in Anandilyakwa, see Worsley 1954; on Gunbarlang, see Mithun 1984). The use of verbal classifiers correlates with classificatory noun incorporation as a marker of verb-argument agreement (Mithun 1984: type IV).

- **Intralocative classifiers** occur on adverbs and/or adpositions, indicating the semantic properties of the noun to which they refer. Examples of intralocative classifiers are found in Bantu languages (Allan 1977), Palikur and Lokono (Arawak) (Aikhenvald forthcoming).

- **Demonstrative classifiers** constitute another type of classifying morphemes. One problem that arises with respect to demonstrative classifiers as a separate type is whether they are distinct from other types, or whether they should be grouped together with numeral classifiers, as suggested in Craig (1994). The following evidence suggests that demonstrative classifiers can be considered a subgroup of classifiers separate from numeral ones:

(a) Numeral classifiers are often not used with demonstratives. In such cases, demonstratives either have no agreement marker whatsoever (as is the case of some demonstratives in Waurá [Xinguan Arawak]) or have a different concordial system, e.g., Palikur, Warekena of Xié, Yucuna, Achagua (North Arawak). In Motuna (Papuan) a somewhat different set of classifiers is used for numerals and demonstratives (Masayoki Onishi p.c.).

(b) Classifiers or concordial class markers are used with demonstratives and other nominals but not with numerals, otherwise numerals have a different number of class distinctions. Such is the case in a number of Australian languages. However, this phenomenon is frequently due to the fact that numerals in Australian languages do not form a homogenous class of nominals, since they are distributed among nominals of other classes (e.g., for Gunwinggu, see Carroll 1976:93; also see Sands 1994; Dixon 1982).

(c) There are a number of languages with “article classifiers,” e.g., classifying morphemes that are used exclusively with demonstratives and/or articles (see Barron and Serzisko 1982, and a résumé in Seiler 1986:88–93). “Article classifiers” are defined by Seiler (1986:88) for a number of Siouan languages, especially Mandan and Ponca. In these languages, they are etymologically linked with classificatory verbs, and as classifiers, their usage is obligatory with demonstrative pronouns, in which case they indicate the position of the antecedent as “standing, sitting or lying,” as well as the form of the antecedent: one-dimensional (long, vertical, or “standing”), two-dimensional (horizontal, or “lying”), or three-dimensional (round, or “sitting”), as illustrated by the Mandan examples in (6) below. Article classifiers, i.e., specific concordial systems restricted to articles, also occur in some Austronesian languages, e.g., Teop (see Mosel and Spriggs 1992).

- (6) *de-māk* ‘this one (lying)’
 de-nak ‘this one (sitting)’
 de-hāk ‘this one (standing)’ (Barron and Serzisko 1982:99)

(d) In some languages demonstratives display a slightly different system of classifiers than other word classes, including numerals. For instance, in Tariana animate classifiers are not used with demonstratives; furthermore, there is one animate classifier that is only used with numerals (see section 2.1.2 below, in comparison with numeral classifiers discussed in section 2.1.1).

Different classifier and noun classification systems can cooccur in one and the same language. Sometimes one set of classifying morphemes can combine the properties of numeral and genitive classifiers, as in Motuna (Masayoki Onishi p.c.). Ponapean (Rehg 1981; Craig 1992) has two different systems of classifiers—one for numeral, and the other for relational classifiers. This is not infrequent among Micronesian languages (e.g., Woleaian, Mokilese, Puluwat,

Truquese, Kosraean; see Lichtenberk 1983:169–71), where relational and numeral classifiers involve both different semantic oppositions and different formal markers. The same set of classifiers is used for numeral, genitive, noun, and verbal classifiers in Baniwa of Içana (North Arawak) (Aikhenvald forthcoming). Sometimes numeral, noun, and verbal classifiers are also used as an agreement device, i.e., in the function of a noun classification system. Such appears to be the case in some Papuan languages of Southern Bougainville (e.g., Hurd 1977, on Nasioi; cf. Foley 1986:83–84).

It is not uncommon for the languages of the world to maintain a formal and sometimes a semantic opposition between noun classification systems and classifiers. Concordial noun classification gender-like systems (i.e., highly grammaticalized concordial systems) coexist with numeral classifiers in some Indian languages (see Dixon 1982:220) and some South American Indian languages, e.g., Warekena, Achagua, Yucuna (North Arawak) (Aikhenvald forthcoming). Concordial noun classification systems with a considerable number of semantically motivated concordial classes coexist with one set of classifiers in Baniwa of Içana (North Arawak). Languages with more than one agreement system (each with its formal properties and semantic distribution) will be considered in section 1.3 below.

The same set of classifying morphemes can be used both in the function of classifiers and that of concordial class markers. Concordial class markers are also used as verbal and noun classifiers in Waurá and Yawalapiti (Xinguan Arawak) (Aikhenvald forthcoming), and as numeral, genitive, noun, and verbal classifiers in Tucano, Piratapuya, Guanano, Desano (East Tucanoan) (Derbyshire and Payne 1990; my field data). Verbal and numeral classifiers are also used as concordial class markers in Munduruku (Tupî) (Gonçalves 1987; Derbyshire and Payne 1990; Craig 1994). Note that the languages that employ different semantic oppositions for classifiers and noun classes are rare. The most striking example of such a language is Palikur (North Arawak); see section 1.3 below for a more detailed discussion. Among Australian languages, Warray (Adelaide River) (Harvey 1987) has a semi-fossilized system of four noun classes and emerging noun classifiers, i.e., generic nouns display a tendency to be used as generic classifiers. Malak-Malak (Ian Green p.c.) also has four noun classes and noun classifiers. Different concordial noun classes and verbal incorporated classifiers coexist in Tiwi (Osborne 1974; Lee 1987), Gunwinggu (Oates 1964), Anandilyakwa (Worsley 1954), Gunbarlang (Coleman 1982), and possibly in Rembarrnga (McKay 1975).

So far I have found no example of a language that has different classifiers for all the prototypical functions described above. Palikur (North Arawak) seems to show the greatest diversity, since it has three systems of classifiers: numeral classifiers, intralocative classifiers, and verbal classifiers. In this language, however, the latter also function as concordial noun class markers. All the three sets of classifiers are formally distinct, and they use different

semantic oppositions (see Aikhenvald forthcoming; also Green and Green 1972). Demonstratives, personal pronouns, and cross-referencing affixes display yet another concordial system (see section 1.3 below).

It seems reasonable to distinguish all these types of classifiers, since, even though there does not appear to be a language with six or seven different sub-systems, every possible combination of them can occur. Some of these combinations were discussed above.

Discourse-pragmatic and anaphoric functions are widely attested for numeral, noun, and verbal classifiers. Pragmatic functions of classifiers in a series of Lowland Amazonian languages are described by Derbyshire and Payne (1990). Discourse and anaphoric characteristics of classifiers in South Asian and Southeast Asian languages, along with stylistic and sociolinguistic properties of classifiers, are considered by Barz and Diller (1985). The use of classifiers as a participant tracking device in Papuan languages is pointed out by Foley (1986:chap. 6). Nasioi displays a similar use of classifiers (Hurd 1977). In Motuna agreement in classifiers is obligatory only with a topical noun (Masayoki Onishi p.c.). Jacaltec classifiers signal thematically salient NPs, when used with the indefinite "one" to introduce a new participant; otherwise the classifiers function basically like definite articles (Craig 1986b). Classifiers also function as definite articles when attached directly to nouns in the Siouan languages Yuchi and Mandan (Barron and Serzisko 1982). Numeral classifiers in Newari have emphatic and individualizing functions (Bhaskararao and Joshi 1985). Noun class markers are used as discourse-pragmatic devices in some Australian languages. Discussing the noun class marking in Nunggubuyu, Heath (1984:172) states that "a broad distinction is made between focused/foregrounded and definite/given NPs, the former favoring omission of prefix and the latter favoring the continuous prefix series." In Warray the absence of a noun class prefix is again correlated with the foregrounding and focusing of the noun (Harvey 1987:53). The use of focused/foregrounded nominals consistently prohibits substantive class marking in a number of other Australian languages, e.g., Jawoyn, Mangarrayi, Marra, Ngalakan, Ngandi, Wandarrang (Harvey 1994:7-8). Merlan et al. (forthcoming) suggest that there is a reference-instantiating function of substantive class markers in many Australian languages.

It will be shown below, in sections 2-6, that Tariana is a rare case, since it combines noun, verbal, and genitive classifiers into one system with noun classification systems, and it has two separate systems of numeral and demonstrative classifiers.

1.3. Split systems and agreement. Another important characteristic of noun categorization devices in the languages of the world is the possibility of a coexistence of different grammatical concordial systems based on different semantic parameters. Unfortunately, this aspect has been somewhat neglected

in the current literature. Two or more concordial systems can cooccur in one language. Here I shall call these cases *split* systems. Frequently, different divisions in agreement classes correspond to different grammatical classes. A very clear example is the gender distinction in Romanian (cf. Corbett 1991: section 6.3, on target gender and controller gender) or the two-gender system for the cardinal number 'two' in Russian, along with the three-gender system for other grammatical classes. In a great many cases (though by no means everywhere—see below), these different concordial systems correspond to different grammatical classes. Many languages display a different number of agreement classes for nouns and pronouns (for Russian, see Zalizniak 1967; for Hebrew, see Aikhenvald 1990:48). For Indo-European and Semitic languages, such cases are treated either as cases of *neutralization* (cf. Corbett 1991:chap. 6) or are completely neglected.

A significant number of languages of the world use a gender-like system in which nouns are divided into a rather small number of grammatical agreement classes (generally, two or three) based on such semantic features as \pm feminine, \pm masculine, or \pm animate. These systems roughly correspond to what is traditionally labeled as *grammatical gender*.

Two types of situations are attested in the languages of the world with respect to split agreement systems.

1.3.1. The most frequent case is a coexistence of two (or, in rarer cases, more) concordial systems either for different grammatical classes of elements or both for different grammatical classes of elements and different kinds of agreement.

Numerous languages of the Arawak family display agreement in noun class for head-modifier agreement and gender-like opposition (generally, feminine vs. nonfeminine), for verb-argument agreement and head-modifier agreement, when the modifier is a demonstrative or an article. Such is the case of Baure, Ignaciano (South Arawak), Waurá, Yawalapiti (Xinguan Arawak), Campa (Pre-andine Arawak), Bahwana, Baniwa of Içana (North Arawak) (Aikhenvald forthcoming). In East Tucanoan languages agreement in noun classifiers is characteristic for head-modifier constructions, and gender-like (\pm feminine) opposition is obligatory in verb-argument constructions (cross-referencing suffixes) (Brüzzi 1967; my field data). In Tariana (see sections 2–5 below), a gender opposition (again, \pm feminine) is characteristic for verb-argument constructions and certain cases of noun derivation, while agreement in noun class is characteristic for head-modifier constructions.

Gender-like agreement systems coexist with noun classes as agreement categories in a number of Australian languages. The most widespread gender opposition is \pm feminine, as in Bachamal (Ford 1990), Tiwi (Osborne 1974), Ngalakan (Merlan 1983), Burarra (Green 1987; Sands 1994), Urningangk (Kristina Sands p.c.). The opposition \pm masculine, as in Gaagudju (Harvey 1992), is rarer.⁴ In a number of languages, the gender opposition is restricted

to verb-argument agreement, as is the case in Gaagudju and Bachamal. In some languages, noun class agreement is extended both to head-modifier and verb-argument constructions, but the gender-like opposition is found only in independent personal pronouns. Such is the case of Gurr-goni (Rebecca Green p.c.), where the number of gender distinctions differs for pronouns and nouns in comparison with verbal markers. This is also the case in Warray (see below).

In a number of Australian languages, there is noun class agreement in head-modifier constructions, but no noun class or gender agreement in cross-referencing or possessive affixes, or in personal pronouns. Such is the case in Gunwinygu (Oates 1964), Gunbarlang (Coleman 1982), Umpugarla, Jawoyn, Mangarrayi, Wardaman, Warray (Sands 1994; Mark Harvey p.c.).

Split concordial systems can coexist with different sets of classifiers. For instance, Baniwa of Içana (North Arawak, my field data) possesses the following: (a) one set of classifiers that combines the functions of numeral, genitive, and verbal incorporated classifiers; (b) approximately forty concordial noun classes used in head-modifier constructions with an adjective in the function of a modifier; and (c) a gender-like (\pm feminine) opposition in independent personal pronouns, which also governs the agreement in verb-argument constructions (cross-referencing prefixes and enclitics), and in head-modifier constructions with demonstratives and articles. One of the most complicated systems of agreement is the one found in Palikur (North Arawak) (see Green and Green 1972). Palikur possesses: (a) a three-gender opposition for personal pronouns, cross-referencing affixes and demonstratives, a system of numeral classifiers; (b) intralocative classifiers; and (c) a system of classifiers that mark the head-modifier agreement with an adjectival modifier and are also used as verb-incorporated classifiers. Noun classifiers and genders are to be reconstructed as separate categories for Proto-Arawak (Aikhenvald forthcoming).

Head-modifier agreement in noun classes is found in Nasioi (Hurd 1977; Foley 1986:83–84), where the noun class agreement markers also function as numeral classifiers (there are around one hundred of them); moreover, a gender opposition (feminine vs. nonfeminine) is apparently used in verb-argument agreement. In Motuna (Masayoki Onishi p.c.), there is a system of approximately fifty-one numeral and genitive classifiers that are also used to mark head-modifier agreement with a demonstrative or a quantifier as a post-head modifier. Furthermore, gender-like opposition (inanimate, diminutive, masculine and feminine genders) governs agreement in head-modifier constructions with articles and demonstratives as pre-head modifiers, and with some adjectives as post-head modifiers; it is also obligatory in verb-argument agreement.

A few Australian languages show the coexistence of concordial noun classes, noun classifiers, and gender distinctions. Warray (Harvey 1987) has four noun classes, generic classifiers, and a feminine vs. nonfeminine distinction in third person singular pronouns; no gender or noun class distinctions are attest-

ed in the verbal cross-referencing system (however, independent pronouns, apparently, can have only human referents). Malak-Malak (Ian Green p.c.; Birk 1976:97–101) has four noun classes, with an obligatory agreement in some head-modifier and all verb-argument constructions, at least four noun classifiers, and a feminine vs. nonfeminine distinction in third person singular pronouns. Gunbarlang (Coleman 1982:18, 46–48) has a system of four noun agreement classes, gender opposition for independent third person pronouns, and verb incorporated classifiers.

1.3.2. A rarer case is the coexistence of noun class and gender-like agreement systems for the same grammatical classes of elements. Two kinds of closed concordial systems coexist in two Arawá languages from South Amazonia—Deni (Paula Boley p.c.) and Paumari (Chapman and Derbyshire 1991:254–56; my field data). One of these concordial systems is based on a gender opposition (feminine vs. nonfeminine), and the other (so-called *ka-* noun class) is based on a set of different, nongender parameters, including position, shape, etc., of the head noun. Both markers can cooccur in verb-argument and head-modifier constructions. In Paumari, they behave somewhat differently as far as agreement patterns are concerned. Both are only partially semantically motivated and constitute distinct agreement systems. The *ka-* noun class is more inclined to be lost first in a gradual language death situation. Several North Arawak languages have numeral classifiers, which are used with numerals from one to three, and a gender-like opposition (feminine vs. nonfeminine) that is obligatory in verb-argument and head-modifier agreement, as is the case of Yucuna (see Schauer and Schauer 1978). In Warekena the gender agreement is optional in head-modifier constructions with adjectival modifiers (my field data). A very unusual system is attested in Achagua, a North Arawak language from Venezuela (close to Yucuna) (see Wilson 1992:4.3). Achagua permits a “double” marking of gender and classifier on certain modifiers. Achagua distinguishes two genders—feminine and nonfeminine, and gender agreement is obligatory in both head-modifier constructions and verb-argument constructions (if the subject of the predicate is not fronted). It also has a system of twelve numeral classifiers, used with numbers from one to three. The use of a numeral classifier is obligatory in head-modifier constructions in which numerals are modifiers, as in (7).

- (7) *áaba-hiza* *káasta*
 one-CL:LONG THIN paper
 ‘one sheet of paper’

However, if a number is used as a modifier with an animate noun, it takes both a classifier and a gender marker, as in (8).

- (8) *áaba-na-i* *áuli*
 one-CL:MAMMAL-SG.MASC dog
 'one dog'

The examples from Achagua are taken from Wilson (1992:62).

In Amuesha (Arawak), verb-incorporated classifiers, as agreement markers, cooccur with gender markers (see Derbyshire and Payne 1990).

Languages such as Paumari, Achagua, and Amuesha confirm the possibility of a different origin of distinct agreement systems in the case of "split" agreement.

There appears to be a general tendency (if not a universal one) concerning a possible distribution of different concordial systems in one language. Whenever a language has both gender-like agreement and concordial noun classes or classifiers coexisting as two or more than two separate systems, the former will more likely be used (a) with personal pronouns and cross-referencing pronominal markers, if any, and (b) with demonstrative pronouns, articles, proper nouns, and the like. A more semantically "detailed" classification of nouns into concordial noun classes, or their subcategorization with the help of classifiers, will be used with common nouns. No language has been attested with a system of concordial classes or classifiers restricted to either pronouns, or cross-referencing affixes, or both, and a gender-like system or no agreement classes at all used exclusively with nouns. This tendency is presented diagrammatically in figure 1. Here gender-like distinctions are more likely to appear at the left-hand end of the hierarchy, while noun classes and classifiers are more likely to appear at the right-hand end.

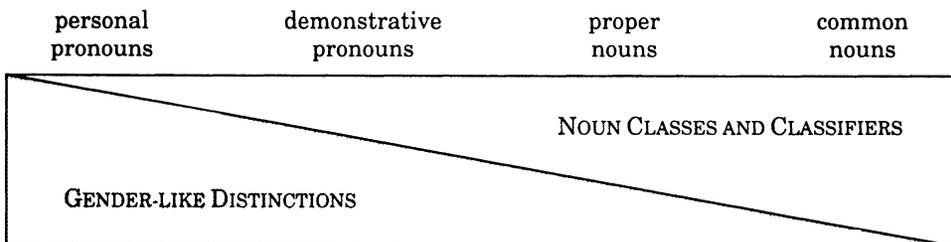


Figure 1. Hierarchy of split gender and noun class systems.

Also, one would expect fewer distinctions in noun classes and gender (if any) in plural than in singular (cf. Corbett 1991).

In any study of agreement systems the following questions have to be answered separately for each system (cf. Barlow and Ferguson 1988:3–5):

- What is the domain of agreement, i.e., what elements agree with what elements in what grammatical configurations?
- What properties do grammatical elements agree in?

- How obligatory or strict is the agreement, and what are the conditions that permit any neutralization or variation in the agreement?
- What are the “morphological techniques” used for marking the agreement?

The study of split agreement systems is also instructive from the point of view of an opposition between head-modifier and verb-argument agreement (see Anderson 1992:section 5.1), and the genesis of corresponding agreement categories (see section 6.3). The organization of a split concordial system and its interaction with various subsystems of classifiers in Tariana will be discussed in section 3 below.

1.4. Lexico-semantic properties of classifiers. When analyzing classifiers and how they function in a given language, the following questions are to be answered:

- What are the semantic features and semantic fields associated with classifiers?
- How firm is the assignment of every noun to a classifier and how well defined are the semantic fields associated with each classifier?
- Do classifiers form a closed class (however large) of morphological items?

The answer to the first question is suggested by the various attempts at a semantic typology of classifiers (e.g., Allan 1977; Dixon 1982) and principles of metaphorical extensions usually employed in classifier systems (for instance, see Lakoff 1986). However, the greatest impediment to an overall typology of the semantics of classifiers lies in the interdependence between classifiers and corresponding ethnographic features. This interdependence is especially important in the case of specific classifiers, which, in most languages, correspond to classes of objects of particular cultural significance (e.g., Craig 1986b, on the culturally determined character of linguistic categorization for Jacaltec classifiers). It also explains why the number of classifiers can be so large (as in Thai). As a result, we may suggest an a priori open character of semantic possibilities of association between nouns and classifiers. This would especially be true for specific classifiers, though some general tendencies to develop classifier systems along such semantic characteristics as shape, form, function, etc., can be postulated.

This brings us to the next question. As is well known, classifier assignment in most languages with numeral classifiers (e.g., Thai, Vietnamese; see Barz and Diller 1985) displays a great degree of semantic pliability. Such is also the case in other classifier languages in which different types of classifiers are combined (see section 1.3). It will be shown in section 5 below how one noun in Tariana can be associated with several classifiers depending on the aspect of it (form, shape, or other characteristics) that a speaker chooses to stress. This possibility of “reclassification” of items can have its language-specific restric-

tions; for instance, in Tariana, only inanimate items can undergo such a “multiple” reclassification.

The problems of semantic flexibility and certain semantic “openness” of noun categorization with the help of classifiers lead to the problem of whether classifiers constitute an open or a closed class of items? Tariana is particularly instructive in this respect, and I shall return to this question in section 6.

1.5. Morphological properties of classifiers. Classifiers are characterized as separate morphemes in Allan (1977) and Craig (1994). They differ across the languages of the world in their morphological and other characteristics. They may function as affixes (as is the case of the majority of American Indian and Papuan languages) or as classifier roots, or as separate lexical units (as in the languages of South and Southeast Asia, and some Australian languages). Classifiers, especially specific ones, frequently develop from free lexemes (as in Munduruku, Arawak languages, and the Papuan languages Nasioi and Motuna).

Classifying morphemes often combine derivational and inflectional properties. They are used as derivational devices, and the class is indicated by an overt marker on nouns. They are also used as agreement devices in a number of language specific constructions. This combination of derivational and inflectional properties in classifiers is attested in almost all Arawak languages with classifiers (Aikhenvald forthcoming; see section 4.2, for Tariana, Tucano, and Yagua; see Doris Payne 1990, for possible theoretical treatments of this phenomenon in Yagua). Derivational and inflectional, or agreement, functions of classifiers are referred to as “head” classes and “agreement” classes by Australianists (cf. Harvey 1994; Evans forthcoming).

Classifiers and noun class markers are frequently associated with the phenomenon of “repeating.” This phenomenon is of particular interest from the point of view of a typology of agreement devices. It is associated with agreement as “copying” agreement of a corresponding feature into a modifier, as opposed to “registration” agreement, which is token-like (see Anderson 1992: 112, on the distinction between “true” agreement and “registration” agreement). Cross-linguistically, in the case of agreement in classifiers, “repeating” phenomena consist of two basic types.

The first type is “phonological,” or alliterative, agreement. It is known from the Toricelli and Lower Sepik families of Papuan languages (Foley 1986:85–87; Corbett 1991:56–62). In this case, the noun-class assignment is carried out on the basis of the phonological aspect of the noun. A part of the noun stem is repeated on the attribute to indicate the agreement in the appropriate semantic context. An example of such a “phonological” agreement is Yimas (Foley 1991:119–90); it has ten sizeable noun classes, of which four are semantically motivated and six are phonologically motivated. There are also six very frequently occurring nouns that form agreement classes unto themselves, and the

agreement marker consists of repeating almost the whole of a lexical unit onto an attribute. The agreement pattern for these minor classes resembles "repeater" phenomena. Alliterative agreement is present, to a considerably lesser extent, in West African languages (see Herbert 1991[1993], on the alliterative character of Bantu noun classes, and its implication for language acquisition and language dissolution).

The second type is a "repeater," or a classifier that is identical to the noun it classifies. This type is a well-known phenomenon in languages with classifiers (see Craig 1994). The number of repeaters in a language can be rather small, as is the case in the majority of South, Central, and North Arawak languages (Aikhenvald forthcoming), or considerably large, as is the case in Newari (Bhaskararao and Joshi 1985), Nasioi and Motuna, or such East Tucanoan languages as Tucano (Brüzzi 1967; my field data) and Desana and Piratapuya (my field data). In Tucanoan languages, a substantial number of classifiers are "repeaters," whereby the head noun itself is incorporated into the modifier. The phenomenon of repeaters is frequently associated with the incorporation of a classifier (cf. Rosen 1989, on a distinction between classifier-type incorporation and compound-type noun incorporation, also discussed in Anderson 1992:33).

The phenomenon of "repeaters" may represent an important clue to at least certain aspects of the genesis of classifiers from independent lexical items via their incorporation into modifiers. Note that here I am using the term *incorporation* in a somewhat broader sense than it is used in the current literature (cf. Mithun 1984; Rosen 1989; Anderson 1992), e.g., the definition given in Anderson (1992:267): "The notable characteristic of 'incorporation' constructions is that they appear to involve the formation of a word consisting (usually) of the Verb and the nominal head of one of the Verb's arguments." Definitions of this kind limit the incorporation to verb-argument constructions. However, as has already been shown in Mithun (1986:section 2), there is an intrinsic connection between a classifier-like incorporation of an argument of the verb and the emergence of classifiers. This connection was also considered in Derbyshire and Payne (1990:266), where the authors tried to show that, at least in some cases, "concordial characteristics [of classifiers] appear to have developed from a verb-incorporated system." I shall try to show below that this is not always the case.

Logically, classifiers that arose from independent lexical items as repeaters can always be reinterpreted as specific classifiers. However, their use is always possible in a more generic sense, in which case they are less likely to be used as repeaters, and "registration" agreement arises.

The existence of repeaters and the possibility of their subsequent generalization as classifiers, with a corresponding "shift" from "copying" agreement to "registration" agreement, might suggest that there is no reason why specific classifiers cannot constitute a virtually open class, since noun classifiers often

go back to lexical items. Still, the role of “repeater” phenomena must be different in each case.

Again, the analysis of Tariana below will suggest new insights into this and other problematic issues, including the problems of the genesis of classifier agreement and other agreement system(s).

2. Noun classification in Tariana. Tariana, like many other Amazonian languages, especially those of the Uaupés linguistic area, has a rich system of classifying morphemes. These morphemes can be used as numeral classifiers, verbal classifiers, and genitive classifiers and as concordial noun class markers. The syntactic properties of classifiers will be discussed in section 2.1. It will be shown below that Tariana distinguishes at least three subsets of classifiers: those used with numerals (section 2.1.1); those used with demonstratives (section 2.1.2); and those used as concordial, verb-incorporated, and genitive classifiers (section 2.1.3). Classifying morphemes can also be used anaphorically and as discourse-pragmatic devices (see section 2.2).

2.1. Properties of classifier morphemes.

2.1.1. Numeral classifiers. Numeral classifiers are used in constructions with simple cardinal numerals from one to four, and compound numerals that contain simple numerals from one to four. The use of numeral classifiers is based upon the opposition animate vs. inanimate. Special numeral classifiers of the animate generic class are used, while just the numeral stem is employed for inanimate classes.

Tariana has two forms of animate numeral classifier. One, *-hipa*, is restricted to animate beings only. It is also preferred when used anaphorically, or as a part of a nonverbal predicate, when the head noun is omitted. The other, *-ita*, is used both with reference to animate beings and their attributes (such as body parts, articles of clothing, and other objects that belong to the domain of human experience). As is shown in appendix 1, both *-hipa* and *-ita* can be used with animate nouns and there is one concordial classifier, *-ite*, that corresponds to both of them. I shall label *-hipa* an animate classifier and *-ita* a generic animate classifier.

Numerals always precede the head noun.

Examples (9)–(15) illustrate the use of the animate numeral classifiers. Example (9) illustrates the use of the animate classifier *-ita* with a simple cardinal numeral *pa* ‘one’. Example (10) illustrates the use of the same numeral as a part of a complex cardinal numeral ‘six’ (literally, ‘one hand and one following’). The human animate classifier *-hipa* is preferred when used anaphorically, as shown in (11), or as a part of a nonverbal predicate, as in (12). Example (13) shows the possibility of using the classifier *-ita* with human referents, when the head noun is not omitted. The word *pa-ita* can be used

without the head noun, in the sense of ‘one (of a group)’, as illustrated in (14), or as an indefinite pronoun, as shown in (15).

- (9) *pa-ita* *tfinu*
 one-CL:GEN.AN dog
 ‘one dog’
- (10) *peme-kapi* *pa-ita* *di-yana-ta* *tfinu*
 one+side-hand one-CL:GEN.AN 3SG.NF-follow-REP dog
 ‘six dogs’ (lit., ‘one side of a hand and one following dog’)
- (11) *pa-kada* *naha* *ñhamepa* (*ñama-hipa*⁵) *na-musu*
 one-CL:DAY they two-CL:AN 3PL-go out
 na-pidana (*na-a-pidana*) *awakada-se*
 3PL-go-PART forest-LOC
 ‘One day the two of them (tapir and turtle) went to the forest’
- (12) *diha* *neri* *phepa-pidana* (*pa-hipa-pidana*)
 he deer one-CL:AN-PART
 ‘The deer was alone.’
- (13) *pa-ita* *nawiki-sini* *dhita-pidana* *pa-kapi* *thuya*
 one-CL:GEN.AN person-also 3SG.NF+take-PART one-hand all
 ‘A man, too, got five (monkeys).’
- (14) *puwe* *na-hwa-ka-naka* *kwa+mhe* *pi-ñu* *pi-a* *pa-ita*
 monkey 3PL-sit-DECL-IMM like+DIM 2SG-climb 2SG-go one-CL:GEN.AN
 pinu
 2SG+kill
 ‘Monkeys are sitting, climb quietly, kill one of them.’
- (15) *ahĩ* *pa-ita-pe* *mawa.ɟi* *a.ɟia-naka*
 here one-CL:GEN.AN-PL snake EXIST-IMM
 ‘There are some snakes here.’

The use of the unmarked form of cardinal numerals for inanimate referents is illustrated in (16).

- (16) *pa* *hinipuku-se-pidana* *na-musu-naka*
 one garden-LOC-PART 3PL-go out-IMM
 ‘They went out into one garden.’

There is also a set of forty specific classifiers set out in appendix 1. A specific classifier is added to the numeral stem, for an inanimate or feminine animate referent, if the following conditions are met:

(a) A particular characteristic of the referent is emphasized, as in (17).

- (17) *pa-na lapi*
 one-CL:VERT pencil
 'one (long) pencil'

vs.

pa lapi
 one pencil
 'one pencil'

(b) The referent is important for the future discourse, as in (18).

- (18) *pa-kada matfia-de:pita di-a di-kana-pidana*
 one-CL:DAY good-night 3SG.NF-go 3SG.NF-walk-PART
 'On one beautiful night (i.e., the very night when important things happened), he went out for a walk.'

(c) The head noun is omitted and the numeral is used anaphorically, as in (19).

- (19) *na-na du-boleta-sita pa:phi-pidana du-yana*
 3PL-OBJ 3SG.F-feather-RES one+CL:HOLLOW-PART 3SG.F-cook
 'She feathered them (the birds) (and) cooked in one hollow thing (i.e., a pan).'

Specific classifying morphemes are also used with demonstratives under the same conditions, and always used with adjectives and verbal forms (see sections 2.1.2 and 3).

This use of classifiers is close to another pragmatic function of classifiers known as *thematic saliency* (see Craig 1986c for a discussion of discourse properties of classifiers in Jacaltec).

The classifier of round objects *-da* is used as a generic class marker in counting, as shown in (20). This use is similar to the anaphoric use of classifiers (see section 2.2) and could be somehow connected with money or other round objects used for counting.

- (20) *pa-da ñama-da mada:ji-da*
 one-CL:ROUND two-CL:ROUND three-CL:ROUND
 'one, two, three'

2.1.2. Demonstrative classifiers. Tariana distinguishes three demonstratives: near, distant, and emphatic near (see section 3, on the possibility of using a third person pronoun similarly to a near demonstrative).

The near demonstrative has two forms: *ha*, used with inanimate nouns, and *hĩ*, used with animate nouns and their attributes. The form *ha* is the unmarked one and is used as the stem for distant demonstratives. Use of *hĩ* is illustrated in (21); that of *ha*, in (22).

- (21) *nu-sa-du-nuku* *dinu-niki* *hĩ* *matfite*
 1SG-spouse-FEM-NUKU 3SG.NF+kill-COMPL DEM:AN bad+CL:GEN.AN
 'He killed my wife, this bad one.'⁶

- (22) *ha* *papera-phe* *ha.ɛ-phe*
 DEM:INAN book-CL:LEAF-LIKE white-CL:LEAF-LIKE
 'This book is white.'

As shown in (23) and (24), distant demonstratives have one form, *ha-ne*, both for animate and inanimate referents.

- (23) *ha-ne* *tʃã.ɟi*
 DEM-DIST man
 'that man (over there)'

- (24) *di-daki-ju* *du-ka-ka* *São Gabrie-se* *ha-ne*
 3SG.NF-grandchild-FEM 3SG.F.come-DECL São Gabriel-LOC DEM-DIST

kamu-yapi
 year-timespan
 'His granddaughter came to São Gabriel last year.'

The emphatic near demonstrative *hĩhĩ* is used to draw the hearer's attention to an inanimate or animate referent, as illustrated in (25) and (26).

- (25) *kwaka-hna* *hĩhĩ*
 what-PROB DEM+EMPH
 'What is this?' (pointing out something)

- (26) *nu-na* *hĩhĩ* *ka-bueta-ma-pe*
 1SG-OBJ DEM+EMPH REL-teach-CL:FEM-PL
 'These very (female) teachers (said) to me.'

If the conditions (a), (b), or (c) above are met for the numerals, classifiers can be used with a near or a distant demonstrative that has an inanimate or animate feminine referent. The classifier is then added to the inanimate form of the near demonstrative as in (27). Here, classifier *-da* 'round thing' is used to refer to the fruit as a head noun (omitted in the discourse) that would not break (however hard the monkey tried to break it). This example illustrates

the use of a classifier with a near demonstrative to signal a referent under special emphasis. In (28), classifier *-na* 'vertical object' is used to point out a special characteristic of the inanimate referent. Example (29) illustrates the use of a distant demonstrative in an anaphoric function, in which the head noun is omitted.

- (27) *kwa yaphini-tha ha-da matfi-da leka-kade*
 INT thing-FRUSTR DEM-CL:ROUND bad-CL:ROUND break-NEG
 'What a bad thing (round thing, i.e., a coconut) that is that does not break?'

- (28) *ha-na yaphini mukide-na*
 DEM-VERT thing fragile-CL:VERT
 'This long thing (i.e., a stick) is fragile.'

- (29) *ha-ne-maka-naka karu-na-naka wa-na*
 DEM-DIST-CL:CLOTH-IMM fear-ST-IMM 1PL-OBJ
 'That cloth-like thing over there (i.e., the gown of the evil spirit) is dangerous for us.'

2.1.3. Concordial, verb-incorporated, and genitive classifiers. Agreement in classifiers is obligatory for adjectives, e.g., (30), (27), and certain quantifiers (e.g., *hanupe* 'many', *kanapada* 'how many'), such as (31). Agreement in classifiers is obligatory for these word classes when they are used both attributively and predicatively. A member of any word class can be used predicatively in Tariana without any special morphological marking. Note that classifiers are also used as derivational types of markers, as in (30) below (see section 4.2. for further details).

- (30) *ñamu-ma hanu-ite-pidana*
 spirit-CL:FEM big-CL:GEN.AN-PART
 '(It was) a big female evil-spirit.'

- (31) *kanapada-dapana-pe panisi di-de-hna Yawarete*
 how many-CL:HAB-PL house 3SG.NF-have-PROB
 'How many houses are there in Iauarete?'

Verb-incorporated classifiers are used in passives (e.g., (32)), as well as in predicates of relative (e.g., (33)) and purposive clauses (e.g., (34)). Verb-incorporated classifiers are mainly used in relative clauses with relativization on subject, e.g., (33) and (34). Example (33) shows the anaphoric use of classifier *-puna* 'stretch, stripe', and (34), that of classifier *-kha* 'curvilinear'.

- (32) *amaku iri-peri-ne na-pita-ni-ku*
 hammock red-CL:ABSTR-INSTR 3PL-paint-PASS-CL:HAMMOCK
 'Hammock has been painted red.'

- (33) *ha yarumakasi kada-puna-pe hipuʔe-puna-pe*
 DEM:INAN shirt black-CL:STRETCH-PL green-CL:STRETCH-PL

ka-de-maka
 REL-have-CL:CLOTH

'This shirt has black and green stripes.' (lit., 'this shirt is the one that has black (stripes) and green (stripes)')

- (34) *pi-a pi-na pa-dana-ni-na kada-kha ka-de-na*
 2SG-give 2SG-OBJ IMP-write-NOM-CL:VERT black-CL:CURV REL-have-CL:VERT

'Give me a pencil (lit., a writing vertical thing) that has a black stripe.'

Classifier agreement is not obligatory in purposive clauses, where it is only used if the subject of an intransitive verb, or the direct or indirect object of a transitive verb in the predicate of a main clause, is focused. In (35) the predicate of the purposive clause agrees in classifier with the subject of the main clause (*hemaʔi-na* 'a palm tree'), since the palm tree is focused in the narrative (the characters having spent a considerable amount of time searching for this palm tree to eat the fruit). No special emphasis is required in (36), and so the purposive predicate does not agree in classifier with the object of the main clause. Here Tariana displays a kind of ergative pattern (see Aikhenvald 1994, on the marking of grammatical relations in Tariana).

- (35) *kani-hna hemaʔi-na wa-hyā-karu-na*
 where-PROB palm-CL:VERT 1PL-eat-PURP-CL:VERT

'Where is the palm tree for us to eat?'

- (36) *diha panisi di-ni-nikha di-yā-karu*
 he house 3SG.NF-make-PERF 3SG.NF-live-PURP

'He made a house for himself to live.'

Genitive classifiers are obligatorily used in possessive constructions. The system of genitive-classifiers coincides with that of concordial and verb-incorporated classifiers (see section 2.1.5). The only difference is that the lexical item *yarupe* 'thing' can be used in the function of a generic classifier for inanimate objects, e.g., (39). The head noun is frequently omitted, as shown in (37) and (38). The same classifier would be used if it had not been omitted.

- (37) *hĩ yarumakasi marku ya-maka nu-na pi-dieta*
 DEM-AN shirt Marco POSS-CL:CLOTH 1SG-OBJ 2SG-return+CAUS

pi-ya-maka
 2SG-POSS-CL:CLOTH

'This is Marco's shirt, bring me yours!'

- (38) *ya-puna-se* *ñama-pu.ɨkuda* *di-yeku-hna*
 POSS-CL:STRETCH-LOC two-CL:MOUNT 3SG.NF-run-PROB
 'He ran (past) two mountains on his way.'

- (39) *hĩ* *kahwi* *nu-yarupe-naka*
 DEM-AN manioc flour 1SG-THING-IMM
 'This manioc flour is mine.'

2.2. Classifiers as an anaphoric and discourse-pragmatic device.

Classifiers are widely used as an anaphoric and participant-tracking device in discourse. Tariana discourse is highly elliptical, and often a classifier is fundamental in tracking a referent in discourse. The following situations are very frequent in discourse: (a) a participant is mentioned once, in the beginning of the narrative, and then it is consistently referred to with the help of a classifier; (b) a participant that is clear from the context is only referred to with the help of a classifier.

Example (40) illustrates the type of situation described by (a). It is taken from a story about how two men met an evil spirit on a river where they came to fish; the evil spirit took off his shirt, and then the whole story evolves around this shirt that has all the power of the evil spirit itself. The magic shirt (*yarumakasi*) is introduced in the beginning of the narrative. The case marking (*-nuku* case)⁷ indicates that the shirt is going to be the future topic of discourse. Later on, the shirt is consistently referred to either as *ha-ne-maka* 'that (distant) one made of cloth', while the shirt itself is at a considerable distance from the men, or as *diha-maka* 'he-made of cloth', when it becomes directly involved with them.

- (40) *diha* *yarumakasi-nuku* *di-sõle* (. . .) *ira-mha pa-pe-niki*
 he shirt-NUKU 3SG.NF-take off (. . .) need-PR IMP-throw-COMPL
- ha-ne-maka-nuku* *na-pidana* *nu-kesini* *hau* *piha* *pi-a*
 DEM-DIST-CL:CLOTH-NUKU 3PL+say-PART 1SG-friend yes you 2SG-go
- pi-pe-niki* *ha-ne-maka-nuku* *ha-ne-maka-naka*
 2SG-throw-COMPL DEM-DIST-CL:CLOTH-NUKU DEM-DIST-CL:CLOTH-IMM
- karu-na-naka* *wa-na* *haiku-na* *dhita* *di-na-tha-pidana*
 fear-ST-IMM 1PL-OBJ tree-CL:VERT 3SG.NF+take 3SG.NF-OBJ-FRUSTR-PART
- di-ni-thepe* *di-pe-niki* *di-na-pidana* *diha-maka*
 3SG.NF-make-to water 3SG.NF-throw-COMPL 3SG.NF-OBJ-PART he-CL:CLOTH
- dhe-kha* *di-a-hna*
 3SG.NF+enter-AWAY 3SG.NF-go-PROB

'He (the evil spirit) took off his shirt . . . It is necessary to throw that (shirt) away, they (the men) said, my friend, yes, you go and throw that shirt away. That (shirt) is dangerous for us. He (one of the men) took a tree-trunk and tried to throw it away, in vain. It (shirt) came upon the man.'

Example (41) illustrates the type of situation described by (b). The story is about how a deer and a jaguar decided to live together. It is important that they chose to live in the same house, one in one room and the other in another. Neither the house nor the rooms are introduced with the help of full lexemes, since the meaning is clear from the context. Genitive and numeral classifiers are used. The lexical item *panisi* ‘house’ is used only in the last sentence of the text, in (42), to summarize what happened to the house.

- (41) *pa-piu-pidana itfiri na-siwa-kaka na-ni pa-dapana-pidana*
 one-CL:TIME-PART animals 3PL-self-REC 3PL-do one-CL:HAB-PART

na-yā yawi neri neri pa-dawa-se yawi
 3PL-live jaguar deer deer one-CL:LIM.SPACE-LOC jaguar

pa-dawa na-yā-pidana pa-dapana-ya
 one-CL:LIM SPACE 3PL-live-PART one-CL:HAB-EMPH

‘Once the animals decided between themselves to live in one (house), jaguar and deer, deer in one (room), jaguar in another (room), they lived in one (house).’

- (42) *ne-pidana naha panisi-nuku na-peni-nikha*
 so-PART they house-NUKU 3PL-leave-PERF

‘So they abandoned the house.’

The anaphoric use of a classifier is illustrated by (43).

- (43) *panisi pamuña-pu-pidana tiya-maka di-kwa-pidana depi*
 house middle-AUG-PART cup-CL:CLOTH 3SG.NF-hang-PART night

pamuña-pidana diha-maka di-hwa
 middle-PART he-CL:CLOTH 3SG.NF-fall

‘A bag for cups was hanging in the very middle of the house. It (the bag) fell in the middle of the night.’

The use of classifiers on numerals and demonstratives, to emphasize the referent or its particular characteristics, was discussed in sections 2.1.1 and 2.1.2 above.

3. Gender.

3.1. Gender agreement. Tariana has a split gender system of the kind described in section 1.2. There are two genders—feminine and nonfeminine. The distinction between two genders exists for the cross-referencing prefixes that mark subjects and arguments of postpositions. Gender agreement is, basically, a property of verb-argument agreement. It is obligatory in subject-predicate constructions (with the exception of some stative verbs, e.g., *ajia* ‘to exist’, as in (44), and all loan verbs, which take no cross-referencing prefixes).

The gender opposition is obligatory for the third person singular personal pronouns, when they mark core grammatical relations (A, S, O in terms of Dixon 1994). The gender opposition is also obligatory in some nominalizations (see the list of nominalizing suffixes in appendix 3) and relative verbal forms. In relative verbal forms, the gender agreement is marked with the help of suffixes *-ji*, for nonfeminine, and *-ju*, for feminine, as shown in (45).

Cross-referencing third person prefixes and third person pronouns are shown in table 1 below.

Table 1. Cross-Referencing Prefixes vs. Pronouns

PERSON/NUMBER/ GENDER	CROSS-REFERENCING PREFIXES	INDEPENDENT PRONOUNS
3 SG NF	<i>di-</i>	<i>diha</i>
3 SG F	<i>du-</i>	<i>duha</i>

Gender agreement between subjects and predicates with the help of cross-referencing prefixes is shown in (44) and (45). The gender agreement of the predicate of a subject relative clause with the head noun is illustrated in (45).

Third person pronouns can be used as definite articles, as in Romance languages. In such cases the gender agreement is obligatory between the article and the head noun, as illustrated in (44). Note that the lack of gender and person/number agreement between the subject *hadu* 'mother' and the predicate *manakadeka* 'she did not want' is due to a neutralization of gender/person/number distinctions in negative verbal forms in Tariana.

(44) *ha-du ma-na-kade-ka du-pala keru-ka ne awakada*
parent-FEM NEG-want-NEG-SEQ 3SG.F-become angry-DECL then forest

pamuña diha di-uka-ka pa-ita inaru hiku-pidana
middle he 3SG.NF-arrive-DECL one-CL:GEN.AN woman appear-PART

duha inaru a:ia-pidana ñamu-ma hanu-ite-pidana
she woman EXIST-PART spirit-CL:FEM big-CL:GEN.AN-PART

'(His) mother did not want (her son to go to the jungle), she became angry, and so he arrived into the middle of the jungle, a woman appeared, it was the woman, a big she-evil spirit.'

(45) *di-hwe-ji ka-ka-ji Graciliano-naka*
3SG.NF-younger sibling-MASC REL-come-MASC Graciliano-IMM

di-we-du-se ka-ka-ju Lurde
3SG.NF-sibling-FEM-ALREADY REL-come-FEM Lourdes

'His younger brother, who follows, is Graciliano, his younger sister, who follows, is Lourdes.'

3.2. Gender and classifiers: an interaction. Genders and classifiers constitute separate grammatical systems in Tariana. However, they interact in various ways. The gender opposition is included in the system of concordial classifiers (see section 4, for a detailed overview). Third person pronouns (non-feminine) with inanimate referents can take classifiers when the head noun is omitted, as illustrated in (40) (*diha-maka* ‘this one cloth-like’, i.e., ‘this shirt’) above and in (36). Their meaning is similar to that of near demonstratives.

- (46) *diha-na* *ithani* *na-ka-pidana* *hemali-na* *ithani*
 he-CL:VERT near 3PL-arrive-PART palm tree-CL:VERT near
 ‘They arrived near it (the tree), near the palm tree.’

4. Classifiers: morphological characteristics and semantics. In this section I shall consider the system of classifiers and their semantics in Tariana (section 4.1). The use of classifiers as derivational affixes, classification and agreement of derived nouns, and compounds will be considered in section 4.2. Another means of noun classification of inanimate nouns that involves the repeating (or incorporation) of the head noun will be discussed in section 4.3. Morphological and phonological properties of classifiers will be considered in section 4.4.

4.1. Classifiers. Tariana has four subsystems of classifiers, which involve different semantic and formal principles and are based on different semantic oppositions. These are animate vs. inanimate (cf. section 4.1.1), feminine vs. nonfeminine (cf. section 4.1.2), and shape, form, function, etc. (section 4.1.4). Plural classifiers will be considered in section 4.1.3.

4.1.1. Animate vs. inanimate. All animate beings fall into a generic animate class (Class 1). Here also belong all the attributes of animate beings, which can also undergo a reclassification (see section 5) according to their form, function, etc., and can subsequently be used with inanimate classifiers. As has been shown in section 2, a formal distinction between numeral classifiers and concordial noun class markers only exists in the generic animate class. Numeral classifiers of the generic animate class are used exclusively with cardinal numbers. A concordial noun class marker is used in all the rest of the constructions that involve the use of classifiers (see examples above).

4.1.2. Feminine vs. nonfeminine. The distinction between feminine and nonfeminine exists only for animate beings. The feminine animate objects are unmarkedly treated as belonging to the generic animate class. The feminine classifier *-ma* behaves as an optional derivational affix (see sections 3 and 4.2). In section 5.1 its use is considered, with respect to the possibility of reclassification of nouns with a feminine referent.

4.1.3. Plural classifiers: abstract and collective nouns. Tariana has two plurals for inanimate and feminine animate nouns: generic and distributive (see appendix 1). Animate nouns have only a generic plural. As is to be expected, there are fewer distinctions in plural classifiers than in singular ones. However, this does not apply to the distributive plural of inanimate nouns.

The suffix *-peni* is used as a plural marker for animate nouns that contain a derivational affix corresponding to the generic animate classifier *-ite*, e.g., *emite* 'child' in (47).⁸ The suffix *-peri* is used with inanimate nouns to mark the collective (nondistributive) plural; it is also used as an agreement marker with uncountable, collective, and abstract nouns. Since plural marking is optional in Tariana (as it is in a vast majority of South American Indian languages), the plural affix tends to appear either on a head noun or on an attribute, and, rarely, on both.

The suffixes *-peni* and *-peri* have the following properties in common: they are used (a) as plural markers on nouns, (b) as derivational affixes, and (c) as concordial markers (exclusively with adjectives). *Peni* is used as a plural agreement marker on animate nouns that contain derivational suffix *-ite* (also used as generic animate classifier, cf. section 4.2), e.g., (47). *Peni* is also used as a plural counterpart of *-ite* as a derivational adjectival affix, e.g., (48), and as a concordial plural classifier, e.g., (49). The plural marking on the head noun is optional.

- (47) *emite*
child+CL:GEN.AN
'child'

emi-peni
child+CL:GEN.AN-PL
'children'

- (48) *itfiri panisite*
animal house+CL:GEN.AN
'a domestic animal'

itfiri panisi-peni
animal house-PL
'domestic animals'

- (49) *apiya taɣadite*
pig alive+CL:GEN.AN
'a live pig'

apiya taɣada-peni
pig alive-PL
'live pigs'

Examples (50) and (51) show the use of *-peri* as a derivational affix. Example (52) illustrates the use of *-peri* as an agreement marker with an inanimate plural noun, (53) with an uncountable noun, and (54) with an abstract noun.

- (50) *kana-peri*
grass-COLL
'grass'
- (51) *saña-peri*
be sweaty-COLL
'sweat'
- (52) *kadusi matfia-peri*
fan good-COLL
'beautiful fans'
- (53) *mawina-yape matfia-peri*
pineapple-juice good-COLL
'pineapple juice is good'
- (54) *pi-pitana matfia-peri*
2SG-name good-COLL
'your name is beautiful'

The suffix *-peri* is frequently used with reference to the names of substances, colors (cf. *iri-peri* 'red color' in (32) above). Thus, *-peri* is quite polisemous: it is used to mark plurality, collective nouns, and abstract nouns. Both *-peni* and *-peri* can be used anaphorically, as shown in (55) and (56).

- (55) *matfia-peni enu-kwa-se taqada-mhade*
good-PL sky-CL:FLAT SURFACE-LOC alive-FUT
'Good (ones) will live in heaven.'
- (56) *wya-ka di-a di-keta-pidana diha iha-wina*
far-DER 3SG.NF-go 3SG.NF-encounter-PART he excrement-lump
ne-nuku waji-periha di-keta-pidana
then-NUKU new-COLL+DIM 3SG.NF-encounter-PART
'He (the turtle) went far, he encountered his (tapir's) lump of excrement . . . then he encountered a rather new (one).'

The classifier *-wani* is used similarly to *-peri*, to mark the agreement with (a) abstract nouns, as in (57), and (b) nouns referring to natural objects, natural phenomena, and body parts, as in (58), (59), and (60). Its meaning is sometimes very close to that of *-peri*; however, a possible semantic opposition be-

tween the two affixes is illustrated in (61) and (62), where *-peri* is used when referring to *u:ni* 'water' as a substance, as in (61), and *-wani* is used when referring to *u:ni* as a natural phenomenon—'a river', as in (62). Furthermore, *-wani* is frequently used as a derivational affix for abstract nouns, as in (63), and also with nouns formed from adjectival roots, as in (64).

(57) *hamu-wani hanu-wani*
 hot-CL:NAT big-CL:NAT
 'great heat'

(58) *hipe kada-wani*
 ground black-CL:NAT
 'black ground, earth'

(59) *kaꞤe sakamu-ihā-wani*
 wind warm-DIM-CL:NAT
 'warm wind'

(60) *nu-hwetfi wya-wani*
 1SG-nape long-CL:NAT
 'my long nape'

(61) *u:ni hape-peri*
 water cold-CL:COLL
 'cold water'

vs.

(62) *u:ni ne-ma-sisa-kade-wani*
 water NEG-NEG-end-NEG-CL:NAT
 'river that does not finish; ocean'

(63) *ma-sisa-kade-wani*
 NEG-end-NEG-CL:NAT
 'eternity (lit., thing that does not end)'

(64) *haꞤe-wani*
 white-CL:NAT
 'the white (of an eye)'

The distributive plural marker is *-pe*. It is used as a plural marker on both nouns and adjectives, where it follows a specific classifier, e.g., (65) and (66). It is not a classifier (and that is why it is not included into appendix 1). Moreover, *-pe* cannot be used anaphorically.

(65) *dipe ñapi-pe na-hyā-pidana naha itfi-da-pe*
 3SG.NF+meat bone-PL 3PL-eat-PART they turtle-CL:ROUND-PL
 'The turtles ate his meat and bones (of the tapir).'

- (66) *hanupe ka-bueta-ma-pe nu-keta-ka*
 many REL-teach-CL:FEM-PL 1SG-encounter-DECL
 'I encountered many female teachers.'

4.1.4. Inanimate classifiers. Inanimate classifiers involve the following semantic oppositions: (a) form: long, round, horizontal; curvilinear, vertical; (b) shape and structure: limited space, leaf-like, stretch, cloth, hole-like, etc. There are a number of specific, or semantically unique, classes, which include manioc bread (*beijú*), lakes, canoes, etc. The overall number of inanimate classifiers is thirty. The largest class is that of round objects, and it is used to a certain extent as a generic class marker (see also section 2.1.2 above). The list of inanimate classifiers is given in appendix 1.

As has been shown above (see section 2), inanimate classifiers are obligatory as concordial markers, verb-incorporated and genitive classifiers (in the latter case, the noun *yarupe* 'thing' can be used as a kind of generic classifier; see also section 4.3). They are optional when used with demonstratives and numerals, in the sense that their use depends on discourse factors and emphasis on the referent. Every classifier can be used as an optional derivational suffix (see section 4.2); however, it does not necessarily appear on the head noun itself, as illustrated in (67).

- (67) *u:ni hanipa di-musu-ka-se-sina*
 water big+CL:SPACE 3SG.NF-go out-DECL-ALREADY-PAST
 'Big rivers had already been flooded.'
- (68) *dihapi keri-nuku dipumi-se di-yana-ka*
 he-CL:LONG month-NUKU 3SG.NF+after-LOC 3SG.NF-follow-DECL
 'After this month, follows (another one).'

The basic difference between a classifier and a derivational affix used as a classifier is that, unlike a derivational affix, a classifier does not necessarily appear on the head noun (see section 4.2, for examples), i.e., classifiers are generally not obligatory as derivational affixes. However, this difference seems to be rather "loose," in the sense that derivational affixes can be sporadically used as agreement markers, without appearing on the head noun. This is particularly characteristic of metaphoric comparisons in spontaneous speech, such as those in (69)–(71) below.

- (69) *kuheni di-kawa-na hanu-kena*
 crab 3SG.NF-leg-CL:VERT big-BRANCH
 'A crab, his leg is big (and branch-like).'
- (70) *karapi leka-peku*
 plate break-CL:THIN STRETCH
 'a cracked plate (lit., a plate with a thin piece of it broken)'

- (71) *karapi leka-pi*
 plate break-CL:LONG
 'a plate with a longish hole in it'

This use of derivational affixes in a kind of "metaphoric agreement" resembles "ad hoc" classifiers, discussed in section 5.3.

Any inanimate noun can be associated with more than one classifier, depending on the semantic characteristics that the speaker wants to emphasize. Some uses are more pragmatically marked than the others, and more "unexpected." In this respect classifiers are semantically, and not grammatically, motivated, since the deviation from "standard" classification is very frequent; see section 5 on the possibilities of noun "reclassification."

4.2. Derived nouns and compounds. A basic property of the noun classification system in Tariana is that every classifier also functions as a derivational suffix, and almost every derivational affix functions as a classifier. This results in a considerably large number of classifiers. The following groups of suffixes are never used as classifiers: (a) nominalizing affixes (listed in appendix 3); (b) nonproductive fossilized suffixes (listed in appendix 4); (c) suffixes *-tuki*, *-tiki* 'diminutive', *-iha* 'lesser quality', and augmentative suffixes *-pu*, *-pi*. Suffix *-mi* 'rest of; pejorative; something worthless or very old; object and resultative nominalization' is included in appendix 3, since it is never used as a classifier when it is employed as the only derivational affix. It can be used on an inanimate noun, as shown in (72), to indicate something negligible, or the remains of something; or on an animate noun, e.g., (73), to indicate a worthless, or dead, being. However, when *-mi* follows one of the productive derivational affixes that are used as classifiers (listed in appendix 2), the complex derivational affix + *-mi* is used as a classifier, as illustrated in (74).

- (72) *ñapi-mi hanu-pi*
 bone-REST big-CL:LONG
 'remains of a big bone'
- (73) *tfinu-mi hanu-ite*
 dog-REST big-GEN.AN
 'the big dead dog'
- (74) *heku-kuda-mi hanu-kuda-mi*
 tree-TRUNK-REST big-TRUNK-REST
 'a big trunk of a tree' (cut down)

The fact that *-mi* and the diminutive and augmentative suffixes are not used as classifiers, unlike other productive derivational suffixes in Tariana,

may be partly justified by their peculiar behavior as far as the morpheme ordering in a morphological word is concerned: they can both precede and follow other derivational and inflectional morphemes.

As noted above, all the inanimate classifiers are used as derivational affixes and vice versa. There are, however, two subgroups of derivational affixes: ones that are optional and ones that are obligatory. The majority of obligatory derivational affixes (with the exception of quantifying affixes) are only used as classifiers when they appear on the head noun. A list of such affixes is given in appendix 2.

Optional affixes can be omitted from the head noun. Their basic function is to stress the singular character of an object and/or its specific characteristic with reference to its properties of shape, form, or structure. Consider the following examples:

- (75) *di-thi* or *di-thi-da*
 3SG.NF-eye 3SG.NF-eye-CL:ROUND
 ‘his eye’ ‘his (one) eye’

All classifiers are optional derivational affixes. However, they become obligatory (i.e., cannot be omitted from the noun) if one of the following conditions applies:

(a) when they occur with the roots that cannot be used without a derivational affix, as *heku* ‘tree, wood’ in (76) below.

- (76) *heku-na* *heku-da* *hekuta*
 tree-CL:VERT tree-CL:ROUND tree+CL:INSTR
 ‘tree’ ‘fruit’ ‘paddle’

(b) when they are used to form a new lexical item from a noun root that can be used separately, as in the case of *episi* ‘iron’ in (77).

- (77) *episi* *episi-da* *episi-aphi*
 iron iron-CL:ROUND iron-CL:HOLLOW
 ‘iron, metal’ ‘motor’ ‘metal pan’
- episi-pukwi* *episi-kha*
 iron-CL:ROUND HOLLOW iron-CL:CURVILINEAR
 ‘metal ring’ ‘metal chain’

(c) when they occur in nominalizations, as in (78) and (79).

- (78) *pa-dana-ni-na*
 IMP-write-NOM-CL:VERT
 ‘pencil’

- (79) *pa-hwa-nipa*
 IMP-sit-NOM+CL:OPEN SPACE
 'chair, seat'

In derived nouns, the derivational affix frequently coincides with a classifier, except for instances of reclassification (see section 5).

Obligatory derivational affixes are always used to form a new lexical item from a noun root. The obligatory derivational affixes are often used as agreement markers, as in (80). Derived inanimate nouns that contain an obligatory derivational affix used as a classifier can be considered to each form a separate specific class. If a derived noun contains more than one derivational affix, the word-final one is more likely to be used as a classifier, as in (81) and (82).

- (80) *panisi-way hanu-way*
 house-AFF:side big-AFF:side
 'a big wall of the house'
- (81) *kara-ka-hwya-puna hanu-puna*
 REL+fly-DER-CL:CANOE-CL:STRETCH big-CL:STRETCH
 'a big airstrip'
- (82) *diha-hwite matfite*
 he-CL:CANOE+CL:GEN.AN good+CL:GEN.AN
 'a good crew member'

Sometimes, however, it is not easy to distinguish between a derived noun and a compound (see also section 4.4). Example (83) below is a compound, because both parts of it can be used as independent lexical items. In the case of a compound, the last morpheme is repeated on the attribute as an agreement marker.

- (83) *kuphe-yeri hanu-yeri*
 fish-basket big-basket
 'a big basket of fish'

Example (84) shows a nominal compound, and (85) shows its agreement with an adjective.

- (84) *tuki du-a kaiduku-pusita du-keta*
 a little 3SG.F-go sand-clearing 3SG.F-see
 'She went a bit and found a sandy clearing'
- (85) *kaiduku-pusita hanu-pusita*
 sand-clearing big-clearing
 'a big sand clearing'

Derivational affixes with quantifying meaning can be used as agreement markers on an attribute even if they do not necessarily appear on the head noun, as shown in the following examples:

(86a) *ha papera iri-yami*
 DEM paper red-CL:PIECE
 'this piece of paper is red'

or

(86b) *ha papera-yami iri-yami*
 DEM:INAN paper-PIECE red-CL:PIECE
 'this piece of paper is red'

(87a) *kajaka hanu-sawa*
 hen big-CL:GROUP
 'a big group of hens'

or

(87b) *kajaka-sawa hanu-sawa*
 hen-CL:GROUP big-CL:GROUP
 'a big group of hens'

Classifiers in Tariana combine derivational and inflectional functions, i.e., they function both as derivational devices and as agreement markers. This combination is, however, not too uncommon in classifying languages (for a discussion and possibilities of treatment of a similar phenomenon in Yagua, see Doris Payne 1990; also see section 1.5 above).

4.3. Incorporation as a noun classification device. Not all inanimate nouns in Tariana are classified as members of one of the noun classes. The classifiers listed in appendix 1 cover about sixty percent of underived nouns. To classify the rest, a different morphological technique is used that consists of repeating, or incorporating, the head noun onto the attribute. The following semantic groups of underived nouns usually undergo incorporation:

- culturally important artifacts, e.g., *ãda* 'grater', *mukutu*, *kame*, *kusiwa* 'types of basket', *tuda* 'fishing net';
- important abstract nouns, e.g., *daikina* 'afternoon', *kamu* 'year, season', *keri* 'sun, moon' (but not *keri* 'month', which is classified as a member of *-pi* class of 'long' objects);
- some body parts, e.g., *-daki* 'body', *-kapi* 'hand', *-heni* 'ear';
- recent loans, mostly from Portuguese, e.g., *mesa* 'table', *pilya* 'battery', *gava-vadora* 'tape recorder'.

The incorporated, or repeated, head noun is used as an ordinary classifier, mostly in constructions with adjectives, and also as a verb-incorporated and

genitive classifier. Its use with numerals and demonstratives is uncommon. Example (88) illustrates the use of an incorporated head noun of a head-modifier construction, *hinipuku* 'garden', as a classifier with an adjective. Example (89) shows the use of the same incorporated head noun as a genitive classifier (in a morphological construction with possessive marker *ya-*).

(88) *hinipuku hanu-hinipuku*
 garden big-GARDEN
 'big garden'

(89) *na-musu-naka namu i-sa-du ya-hinipuku-se*
 3PL-go out-IMM evil spirit POSS-spouse-FEM POSS-GARDEN-LOC
 'They went out to the evil spirit's wife's garden.'

In some cases it is not easy to distinguish between the repeating, or incorporation, of the head noun as an agreement noun-classifying device, and repetition as a syntactic phenomenon. Phonological criteria must then be used, besides morphosyntactic ones. For example, in (90) the noun phrase *yeri heku-da-yeri* is translated literally as 'a basket fruit-basket', and it can be interpreted either as (a) a construction with the head noun *yeri* 'basket' incorporated into the attribute, or (b) syntactically, i.e., as a case of repetition for clarification: 'basket, that is, a fruit basket'.

(90) *dihā yeri heku-da-yeri ne-se-pidana du-dyeta*
 he basket tree-CL:ROUND-BASKET then-LOC-PART 3SG.F-return+CAUS
 'Then she (the Little Red Riding Hood) brought back this fruit-basket.'

Interpretation (a) is suggested by the analysis of the intonation pattern, whereupon *yeri hanu-yeri* is treated as a single phonological phrase. Clarifications and afterthoughts in Tariana are characterized by a pause before them and change of pitch accent in the last syllable, both of which do not occur in this case.

4.4. Phonological properties of classifiers. Classifiers differ in their phonological characteristics depending on whether they are (a) affixes, (b) parts of compounds, or (c) incorporated items. All three, however, behave in a similar way as far as their morphological characteristics are concerned (see sections 4.1–4.3). All classifier morphemes are placed immediately after the root and are followed by other inflectional affixes. They are preceded only by the passive morpheme *-ni*, the purposive form markers *-karu* and *-hyu*, and sometimes by the nominal suffix *-iha* 'lesser quality'.

Classifying suffixes fall into prosodic and extraprosodic ones (for the notion of extraprosodicity, see Buller et al. 1993). Prosodic affixes interact with the

accentual properties of the root, and thus affect stress placement. A series of morphophonological vowel changes occur on the root-classifier boundary. Extraprosodic suffixes do not affect stress placement. The majority of classifying suffixes are monosyllabic. Those that are not can be etymologically traced back to full roots that must have undergone cliticization and grammaticalization as classifiers (see section 5). An example of a prosodic classifying affix, *-íte*, is given in (91), while an extraprosodic affix, *-phe*, is given in (92).

- (91) *ináru matíte*
inaru matfiá-íte (underlying form)
 woman good-CL:GEN.AN
 'a good woman'

- (92) *papéra-phe matfiá-phe*
 paper-CL:LEAF-LIKE good-CL:LEAF-LIKE
 'a good book'

The second components of the compounds normally bear secondary stress (\hat{V}), when used as classifiers, as shown in (93).

- (93) *yarumakási-yámi hanú-yami*
 cloth-piece big-CL:PIECE
 'a big piece of cloth'

Repeaters, or incorporated lexical items, used as classifiers retain their normal stress, as in (94) below. Thus, the phonological integrity of a morphological construction *adjective + incorporated item* used as a classifier can be questioned. However, its functioning as a single phonological phrase is beyond doubt. This property is maintained by the ad hoc classifiers arising from incorporated items, or repeaters, discussed in section 5.1.

- (94) *ãda hanú-ãda*
 grater big-GRATER
 'a big grater'

5. Semantic motivation of noun classification: reclassification and the emergence of new classifiers.

5.1. Reclassification. All inanimate nouns can undergo reclassification, in accordance with the most salient characteristics the speaker might want to emphasize. Nouns with feminine referents can also undergo reclassification: they can be considered either as members of the generic animate class or as members of the feminine class, if the feminine characteristics of the referent

have to be emphasized. In (44) above, the generic animate classifier is used both with the numeral *pa-* and the adjective *hanu-* 'big' when referring to a female evil spirit called *ñamu-ma* 'she evil spirit'. In this word, the specific feminine classifier *-ma* is used as a derivational device to emphasize that the evil spirit is female. In (95), the specific feminine classifier *-ma* is used as an agreement marker.

- (95) *pa-ma inaru hanu-ma*
 one-CL:FEM woman big-CL:FEM
 'one big woman'

In examples (96), (97), and (98) different classifiers are used to indicate the different forms of the referents.

- (96) *pheni pa-kwa-nipe hanu-kwema*
 IMP+ear IMP-hang-NOM+NOM big-CL:ROUND
 'big (round) earring'

- (97) *pheni pa-kwa-nipe wya-ka-hwi*
 IMP+ear IMP-hang-NOM+NOM long-DER-CL:THIN
 'rather long thin earring'

- (98) *pheni pa-kwa-nipe wya-kha*
 IMP+ear IMP-hang-NOM+NOM long-CL:CURVILINEAR
 'long and twisted earring'

As a result of reclassification, the classifier used with a derived noun sometimes may not coincide with the last morpheme in the string of derivational morphemes, as in the nominalizations in examples (99)–(100).

- (99a) *pesa-ni-na-pa hanu-na*
 IMP+climb-NOM-CL:VERT-CL:LARGISH big-CL:VERT
 'a big long ladder'

or

- (99b) *pesa-ni-na-pa hanu-pa*
 IMP+climb-NOM-CL:VERT-CL:LARGISH big-CL:LARGISH
 'a large ladder'

- (100a) *kana.ḡithi-da hanu-ite*
 glass+eye-CL:ROUND big-CL:GEN.AN
 'big glasses'

or

- (100b) *kana.ḡithi-da hanu-da*
 glass+eye-CL:ROUND big-CL:ROUND
 'big (round) glasses'

Another problem that arises in the case of derived nouns containing a string of derivational morphemes is whether the members of that string have to occur in a fixed order or not. In fact, if a derived noun is to be presented as a head-modifier construction, the affix that is the head of the morphological construction always occupies the last place in the string of derivational affixes. This can be illustrated with the following examples. In (101), the last derivational affix *-maka* 'cloth-like' is the head of a morphological construction, and so it occupies the last place in the string of morphemes (cf. (78) and (79) above). In (102), the derivational affix *-da* 'round object' is used twice. The first occurrence of *-da* can be interpreted as a modifier to the root *hipa* 'ground, earth', its second occurrence as a modifier to a derived noun *hipa-da* 'stone'. An alternative ordering of morphemes is possible, but that changes the meaning of the word, as illustrated in (103) and (104), since the semantics of a derived word in Tariana is connected with bracketing (cf. Anderson 1992:263–64; see Aikhenvald [in preparation], for a fuller account of the possibilities of variable morpheme ordering in Tariana).

(101) *kuda-ma-maka*
 garment-CL:FEM-CL:CLOTH-LIKE
 'woman's garment'

(102) *hipa-da-da*
 ground-CL:ROUND-CL:ROUND
 'gravel (i.e., a small round stone)'

(103a) *nu-kapima-da*
 1SG-hand+CL:SIDE-CL:ROUND
 'one palm of my hand'

or

(103b) *nu-kapima*
 1SG-hand+CL:SIDE
 'a side of my hand'

(104) *nu-kapi-dama*
 1SG-hand-CL:ROUND+CL:SIDE
 'one side of my finger'

If derivational morphemes are modifiers to the root that is the head of a morphological construction, the derivational affix that specifies a more important property of the root is placed closer to the root, as in (99) above.

The use of different classifiers and classifying devices can signal different meanings of the referents. Compare the classification of *u:ni* 'river' as a natural phenomenon (classifier *-wani*) in (62), its classification as a member of *-ipa* class (denoting large space) in (105), where the head noun refers to a big river,

and the classification of the same noun in (106), where it refers to any river, and in (61) and (107) where *u:ni* refers to water as substance.

(105) *u:ni hanipa*
 river big+CL:BIG OPEN SPACE
 'a big river'

(106) *u:ni hanu-pua*
 water big-CL:RIVER
 'a big river'

(107) *u:ni pumeni-peri*
 water sweet-COLL
 'sweet water'

The use of animate vs. inanimate classifiers may depend on the characteristics of a possible possessor of the head noun. For instance, in (108) the animate generic classifier *-ite* is used with *yarumakasi* 'clothing' with reference to a person's clothing, and in (109) the use of classifier *-maka* 'cloth' indicates that the piece of clothing does not belong to a human being (in fact, it belongs to an evil spirit) (cf. similar functions of classifying morphemes in Yagua: Payne 1990, and other Arawak languages; cf. Aikhenvald forthcoming).

(108) *Rafael yarumakasi irite-naka*
 Rafael clothing red+CL:GEN.AN-IMM
 'Rafael's (present) shirt is red'

(109) *ira-mha pa-pe-niki ha-ne-maka-nuku*
 need-PR IMP-throw-COMPL DEM-REM-CL:CLOTH-NUKU
 'One must throw away that clothing'

The use of different classifiers can be linked with the use of different adjectives and other attributes. The generic classifier is preferred with passive verbal forms, as in (110). Color adjectives are preferred with either generic classifiers or classifiers referring to form or shape, as in (111)–(113); dimension adjectives are preferred with the classifiers that refer to shape, as in (114), and value adjectives are preferred with either classifiers referring to form or shape, or those referring to special characteristics, as in (115) and (116). Generic classifiers are preferred with age adjectives, as in (117).

(110) *yakuleka pa-ita-nite*
 door IMP-close-NOM+CL:GEN.AN
 'closed door'

- (111) *episi-aphi kada:phi*
 iron-CL:HOLLOW black+CL:HOLLOW
 'black pan'
- (112) *nu-thi-da hipu:ite*
 1SG-eye-CL:ROUND blue-CL:GEN.AN
 'my blue eye'
- (113) *enu-kwa hipu:je-kwa*
 sky-CL:FLAT SURFACE blue-CL:FLAT SURFACE
 'a blue cloud'
- (114) *yakuleka hanu-yawa*
 door big-CL:HOLE
 'big (open) door'
- (115) *di-thi matfia-da*
 3SG.NF-eye good-CL:ROUND
 'his beautiful eye'
- (116) *enu-kwa matfia-ehkwapi*
 sky-CL:FLAT SURFACE good-CL:DAY
 'a nice cloud'
- (117) *upite yarumakasi*
 old+CL:GEN.AN cloth
 'an old piece of clothing'

5.2. Reclassification and repeating. A very interesting issue is that of a possibility of using a classifier and incorporation, or repeating agreement, as reclassification devices. The basic questions are: (a) is it possible at all? and (b) if it is, what will be the semantic consequences?

Examples in my corpus suggest the following answers to these questions. It is possible to use both a classifier and incorporation, or repeating agreement, as reclassification devices. However, this is only possible for underived nouns. The incorporation of the head noun as an agreement device is possible if at least one of the following conditions is observed:

- the head noun is in focus, or
- the head noun, or its property, is emphasized, or
- the speaker is referring to the head noun as a whole.

Examples (118) and (119) illustrate the repeating, or incorporation, of a focused constituent as an agreement device. Both are taken from a text about how two Maku people were taken to the house of the evil spirit from which only one of them managed to escape afterwards. The house is introduced in

(118), where the specific classifier *-dapana* ‘habitation’ is used in a headless genitive classifier construction. This house requires emphasis since it will be the center of the future narrative, and for that reason the ad hoc incorporation of the noun *panisi* ‘house’ is used in the same type of headless genitive classifier construction in the following sentence of the narrative in (119) below.

- (118) *nuha hnuta nu-dia nu-a-de du-a-pidana*
 I 1SG+take 1SG-return 1SG-go-FUT 3SG.NF-say-PART
nu-ya-dapana-se *du-a-pidana* *ñamu* *i-sa-du*
 1SG-POSS-CL:HAB-LOC 3SG.F-say-PART evil spirit POSS-spouse-FEM
 ‘I shall take you back to my house, said the wife of the evil spirit.’

- (119) *kayi du-ni dhuta du-dia du-a-pidana*
 so 3SG.F-do 3SG.F+take 3SG.F-return 3SG.F-AUX-PART
du-ya-panisi-se
 3SG.F-POSS-CL:HOUSE-LOC
 ‘After she did so, she took (them) back to her very house.’

The next example, (120), is taken from the story of Little Red Riding Hood, where the girl is talking to the wolf. Here, the word *numa* ‘mouth’ requires special emphasis and therefore is incorporated, i.e., repeated onto the purposive verbal form as an agreement marker.

- (120) *pi-numa-pi-ne* *du-a-pidana* *pi-na*
 2SG-mouth-AUG-INSTR 3SG.F-say-PART 2SG-OBJ
ñihyā-karu-numa-pi-naka *di-a-pidana*
 3SG.NF+eat-PURP-CL:MOUTH-AUG-IMM 3SG.NF-say-PART
 ‘You are with a very big mouth, she (the girl) said. It is the big mouth to eat you, he said (the wolf).’

In example (121) a particular property of the head noun *āhwi-da* ‘manioc’ (i.e., its taste) requires a special emphasis, and that is why the head noun, which already contains a classifier as a derivational affix, is incorporated into the adjective. This example is taken from a dialogue.

- (121) *āhwi-da* *matfia-āhwi-da*
 manioc-CL:ROUND good-CL:MANIOC-CL:ROUND
 ‘the manioc is very tasty’

Examples (122) and (123) show the opposition between an emphasized head noun, *diekwa* ‘his face’, and the same head noun not emphasized. In (122), incorporation of the head noun is required, since the head noun is emphasized. In (123), however, the head noun is not emphasized, and the generic animate classifier is used.

(122) *di-ekwa hanu-ekwa*
 3SG.NF-face big-CL:FACE
 'the very big face of his'

(123) *di-ekwa hanu-ite*
 3SG.NF-face big-CL:GEN.AN
 'his big face'

Example (124) refers to the whole of the head noun (*karapi* 'plate'), and so its incorporation is required. Example (125) refers to a part of the same head noun, and the classifier *-kwema* 'round flat object' is used.

(124) *nuha karapi hala-karapi-niki*
 I plate open-CL:PLATE-COMPL
 'My plate is completely full of holes.'

(125) *nuha karapi leka-kwema*
 I plate break-CL:ROUND FLAT
 'My plate is broken' (a plate had a broken round part).

5.3. Repeating and the emergence of new ad hoc classifiers. As it appears from the material discussed above, the Tariana system of noun classification is far from being a closed system. Another very important principle governs the noun classification system in Tariana. As is the case in many languages with classifiers (see, for instance, DeLancey 1986, on classifiers in Thai), classifiers constitute a virtually open class, since almost any noun can appear as a classifier when used as a more generic term. The repeating agreement, or incorporation, of the head noun into the attribute in Tariana sometimes goes together with a reinterpretation of the incorporated noun as a more generic concept, which can therefore be used as a further classifier and agreement marker for items similar in physical form or social function, or items that belong to the same semantic field.

This principle is illustrated by examples below. The emergence of a new "ad hoc" classifier from repeating, or incorporation, on the semantic basis of a common function is illustrated by (126), where the common noun *yeri* 'basket' is used as a classifier for a specific type of basket *kame*. Another illustration of the same principle is given in (127), where *wepuna* 'part of an arrow to put poison in' is used to classify the lexical item *kapisiri* 'a needle used to prepare poison'. Here the agreement is employed to indicate the specific use of *kapisiri* in preparing poison; an unmarked classification of *kapisiri* as a long thin object is shown in (128). Common form is illustrated by *turapa* 'cone; something of a cone form' as in (129), and the same semantic field by *ehkwapi* 'day; something that appears during the day' in (130), *yakaɟe* 'village; community, place' in

(131), and *de:pita* 'night; something that appears at night' in (132). Note that this technique involves metaphoric comparison (cf. especially *-turapa*, in (129)).

(126) *kame hanu-yeri*
basket big-CL:BASKET
'a big basket'

(127) *kapisiri hanu-wepuna*
needle big-CL:PLACE TO PUT POISON
'a needle used for putting poison into an arrow'

(128) *kapisiri hanu-hwi*
needle long-CL:LONG THIN
'a long needle'

(129) *kepira-maka matfia-turapa*
bird-CL:CLOTH good-CL:CONE
'beautiful bird-nest (cone-like)'

(130) *enu-kwa kadawa-ehkwapi*
sky-CL:FLAT SURFACE black-CL:DAY
'black cloud'

(131) *iña-ji hanu-yakaꞤe*
live-NOM big-CL:PLACE
'a big place'

(132) *kera:pi matfia-de:pita*
moon/sun+CL:LONG good-CL:NIGHT
'beautiful moonlight'

This mechanism of creating ad hoc classifiers is very widespread in the language, and is also frequently applied to loanwords. Some of these classifiers are becoming grammaticalized. Such is the case of *ehkwapi* 'day; something that appears during the day', used to mark agreement with several nouns referring to natural phenomena. The use of such items as *de:pita*, *yeri*, *yakaꞤe* as classifiers is more occasional.

The use of the noun *yarupe* 'thing' as a generic genitive classifier for inanimate objects doubtlessly goes back to the incorporation of a head noun. This is an example of a fully accomplished process of transformation of an incorporated noun into a classifier.

An analogy between noun incorporation, as an agreement device, and "repeater" phenomena (see above, section 1.5) is apparent.

Many languages of the world use "repeating" of a constituent as a syntactic pragmatic device for emphasizing, or topicalizing it.⁹

The difference between these syntactic constructions and noun incorporation as an agreement device in Tariana is that incorporated nouns used as classifiers in Tariana form part of a corresponding grammatical word; also “incorporating” agreement can be obligatory in some cases (see section 4.3).

Noun incorporation as a classifying device for culturally significant and otherwise “unclassifiable” items is characteristic of East Tucanoan languages (my field data; Brüzzi 1967). Apparently, however, East Tucanoan languages have neither (a) a mechanism of noun “reclassification,” using either incorporation or a classifier as a pragmatic device (see section 5.2 above), nor (b) nouns used as ad hoc classifiers.

6. Classifiers in Tariana: conclusions.

6.1. General characteristics. The following general characteristics of classifiers in Tariana are of theoretical interest for a cross-linguistic study of noun categorization devices.

6.1.1. Tariana shows the existence of a split system of agreement. A gender system (opposition: feminine vs. nonfeminine) is characteristic for verb-argument agreement with the help of cross-referencing prefixes, and personal pronouns coding core participants. Classifiers are used to mark verb-argument agreement in verb incorporating constructions involving passive, relative, and purposive verbal forms. At least three systems operate within the head-modifier constructions. Gender opposition is maintained for personal pronouns used attributively. An animate vs. inanimate opposition is used for demonstratives and numerals. A well-developed open system of specific classifiers is characteristic for head-modifier constructions, when the modifier is an adjective, and genitive possessive constructions. These specific classifiers can be used both with numerals and demonstratives as discourse-pragmatic devices.

The existing concordial systems differ in their (a) domain of agreement, (b) agreeing properties, and (c) strictness of agreement. Gender agreement in verb-predicate constructions is obligatory, and agreement in classifiers depends on the characteristics of referents (see section 2). The classifier system is more semantically motivated than the gender system.

This split system in Tariana is in complete agreement with the universal tendencies of split-gender marking discussed in section 1.3.

Tariana shows almost no formal opposition between concordial noun class markers and classifiers. Numeral classifiers are in opposition to other classifiers only in the generic animate class. Tariana displays three subsets of classifiers, on the whole, in accordance with their formal characteristics and the semantic oppositions involved: numeral classifiers; demonstrative classifiers; genitive, verb-incorporated, and concordial classifiers.

6.1.2. Classifiers in Tariana display the following properties:

- They are separate morphemes.
- Almost any derivational affix can be used as an inanimate classifier; and thus the number of classifiers is virtually equal to that of derivational affixes.
- The last component of any compound can be used as a classifier.
- Nongeneric animate classifiers are widely used as a discourse-pragmatic means of constituent marking, in the context of an emphasized, or focused, head-noun, and in head-modifier constructions with numerals, demonstratives, or third person pronouns as modifiers.
- The existence of a large number of classifiers is complemented by incorporating the head noun under the same circumstances as the agreement in classifier, i.e., head modifier agreement, with adjectives as modifiers, as well as verb-incorporated and genitive constructions.
- Incorporation as a noun classification device is applied either for unique or otherwise important “unclassifiable” items, or as a discourse-pragmatic means.
- The discourse-pragmatic use of noun incorporation as a “classifying” device is linked to emphasis and the focusing of head nouns, and it functions in a parallel way to the use of specific classifiers as head-modifier agreement markers with numerals, demonstratives, and third person pronouns as modifiers.
- Classifiers can be considered a virtually open class of morphemes, since any lexical item can be used as a classifier under appropriate conditions.
- Noun incorporation is a source of a development of new ad hoc classifiers (often following the principles of metaphoric comparison, etc.).

6.2. Tariana and the typology of classifiers. Characteristics of Tariana classifiers have the following implications for an overall typology of classifiers. First, they confirm the possibility of a coexistence of “split” agreement systems in one language, each with its specific properties concerning the domain, features, and strictness of agreement. Tariana material also confirms the existence of a special subtype of classifiers—demonstrative classifiers. It also shows the possibility of combining concordial, genitive, and verb-incorporated classifiers into one set of classifiers, leaving numeral and demonstrative classifiers as two separate sets.

One of the most striking characteristics of classifiers in Tariana is that they can, in fact, be considered a virtually open class of items, both formally and semantically. The extensive use of noun incorporation for noun classification, which can be either pragmatically motivated or not (see section 6.1), can be viewed as a peculiar case of a “repeater” phenomenon. “Repeating,” or copying agreement, sometimes differs from noncopying agreement in its pragmatic implications (see section 5.3). On the other hand, almost any noun can be

“treated” as a classifier, if understood in a more or less “generic” meaning. This is also important from the viewpoint of the possible genesis of classifiers.

6.3. Genesis of classifiers. The generalization of incorporated items as ad hoc classifiers and their subsequent use as more or less grammaticalized elements to signal the classifier agreement are especially important for the history of the genesis of classifiers in Tariana and in Arawak languages in general. As I have shown elsewhere (Aikhenvald forthcoming), the vast majority of “legitimate” classifying morphemes (listed in appendix 1) have a corresponding lexical root either in the same language or in other language(s) from the same family; these items very often go back to the proto-language (cf. Payne 1991).¹⁰ Consider the examples in table 2.

Table 2. Correspondences between Tariana Classifiers and Proto-Arawak Lexemes

TARIANA CLASSIFIERS	PROTO-ARAWAK LEXEMES
- <i>hwi</i> ‘THIN SHARP’	* <i>dewi</i> ‘flower; thin sharp object’
- <i>pu</i> ‘LONG’	* <i>apu</i> ‘trail, path, long object’
- <i>da-pana</i> ‘HABITAT’	* <i>pana</i> ‘house’
- <i>pi</i> ‘LONG THIN’	* <i>a-pi</i> ‘snake’
- <i>phe</i> ‘LEAF-LIKE THIN’	* <i>pe</i> ‘dust; light substance’

The correspondences between lexical items and classifiers in table 2 confirm our hypothesis that classifiers emerged via the incorporation of lexical items into the attribute, and the subsequent grammaticalization and cliticization of these elements.

Languages with split agreement systems, which have both noun classes and genders, often have a different origin for the two systems. Such appears to be the case for Proto-Australian (Sands 1994), where a gender-like opposition (feminine vs. nonfeminine, or feminine vs. masculine) is reconstructed for Proto-Australian; noun classes and classifiers are shown to have evolved more recently, and independently in each subgroup, from generic lexemes. Later on, gender and noun class concordial systems converged, at least in some languages. This convergence accounts for their close interaction. Noun classes developed from classifiers; the latter, in their turn, go back, basically, to a number of generic nouns—hence the difficulty of establishing the exact number of noun classifiers in the proto-language. A rather similar scenario can be reconstructed for Proto-Arawak (see Aikhenvald forthcoming). The opposition of two gen-

ders (feminine vs. nonfeminine) for demonstratives, cross-referencing affixes, and personal pronouns can be reconstructed for Proto-Arawak. The diversity of noun classifiers, in their semantic and formal aspects, can only be explained by their independent genesis on the level of individual subgroups of languages.

Appendix 1. Classifiers in Tariana

(1) Generic Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
1. <i>-hipa; -ite</i>	animate	<i>tfiã̃ji</i> 'man'; <i>inaru</i> 'woman'
1a. <i>-ita; -ite</i>	generic animate	<i>kamisa</i> 'shirt' <i>tfiã̃ji</i> 'man'; <i>inaru</i> 'woman'
2. <i>-da</i>	round objects, generic inanimate	<i>mawina</i> 'pineapple', <i>dithi</i> 'eye', <i>heku-da</i> 'fruit'
3. <i>-yarupe</i>	generic genitive inanimate classifier	<i>kahwi</i> 'manioc flour', <i>kaini</i> 'manioc'

(2) Plural, Collective, and Abstract Noun Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
4. <i>-peri</i>	plural inanimate, collective, abstract	<i>pumeni-peri</i> 'sugar'; <i>u:ni</i> 'water', <i>saña-peri</i> 'sweat'
5. <i>-peni</i>	plural animate	<i>matfia-peni</i> 'good ones'
6. <i>wani</i>	abstract, collective nouns, nature	<i>ehkwapi</i> 'day', <i>iya</i> 'rain', <i>nukuda</i> 'my body' (as a whole)

(3) Specific Classifiers*A. Gender Classifier*

CLASSIFIER	SEMANTICS	EXAMPLES
7. <i>-ma</i>	feminine	<i>inaru</i> 'woman', <i>kabueta-ma</i> 'female teacher'

B. Shape and Form Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
8. <i>-ipa</i>	big open space	<i>dikaka-pua</i> 'cheek', <i>yupitfi</i> 'sieve', <i>u:ni</i> 'river', <i>hipa</i> 'land', <i>kaiduku</i> 'beach'
9. <i>-ku</i>	folded stretch of cloth	<i>amaku</i> 'hammock'
10. <i>-kwana</i>	plain	<i>maka-kwana</i> 'plain', <i>hipa-kwa</i> 'stony surface'
11. <i>-kwema</i>	flat and round	<i>karapi</i> '(round) plate'
12. <i>-kha</i>	curvilinear	<i>kule-kha</i> 'fishing line', <i>hewya-pi-kha</i> 'rainbow'
13. <i>-maka</i>	extended cloth, clothing	<i>yarumakasi</i> 'cloth'
14. <i>-mapha</i>	completely covered	<i>disinuma</i> 'his beard'
15. <i>-na</i>	long vertical	<i>heku-na</i> 'tree'
16. <i>-pa</i>	largish and long	<i>deri</i> 'banana', <i>pesanini-pa</i> 'ladder'
17. <i>-peku</i>	thin stretch	<i>leka-peku</i> 'a broken longish piece'
18. <i>-pi</i>	long, thin, vertical	<i>hirina</i> 'manioc squeezer (tipiti)', <i>deri-pi</i> 'banana tree'

19. <i>-pu</i>	long, hollow	<i>haiku-pu</i> 'log', <i>nawiki-pu</i> 'grave'
20. <i>-pukwi</i>	round and hollow	<i>episi-pukwi</i> 'metal ring'
21. <i>-puna</i>	stretch	<i>hinipu</i> 'road', <i>karaka-hwya-puna</i> 'airstrip'
22. <i>-phe</i>	leaf-like	<i>dina-phe</i> 'feather', <i>papera-phe</i> 'leaf of paper', <i>livru</i> 'book'
23. <i>-aphi</i>	smaller, hollow	<i>surupephi</i> 'clay pot', <i>episi-aphi</i> 'metal pot'
24. <i>-hwi</i>	particles, small thin objects	<i>kafe-hwi</i> 'grain of coffee'
25. <i>-yawa</i>	holes	<i>hala-yawa</i> 'hole', <i>dithaku-yawa</i> 'his nostril'

C. Semantically Unique Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
26. <i>-pua</i>	stretch of a river	<i>u:ni</i> 'river', <i>ñapu</i> 'spring'
27. <i>-kyere</i>	island	<i>kewere</i> 'island', <i>maka-kyere</i> 'a big island'
28. <i>-nai</i>	lake	<i>maka-nai</i> , <i>u:ni-nai</i> 'lake'
29. <i>-ithi</i>	seed	<i>ithi</i> 'seed', <i>iwi</i> 'grain of salt'
30. <i>-kuthe</i>	beiju	<i>pethe</i> 'manioc bread (<i>beijú</i>)'
31. <i>-pusita</i>	clearing	<i>pusisi</i> 'clearing'
33. <i>-piu</i>	time	<i>pa-piu</i> 'once'

D. Function Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
34. <i>-ita</i>	instruments	<i>maʒie</i> 'knife', <i>kanaʒi</i> 'mirror', <i>hekuta</i> 'paddle'
35. <i>-dapana</i>	habitation	<i>panisi</i> 'house', <i>ditape-dapana</i> 'hospital'

E. Quantifier-like Classifiers

CLASSIFIER	SEMANTICS	EXAMPLES
36. <i>-ima</i>	a paired object; one side of two	<i>iphema</i> '(insect's) wing', <i>diaranima</i> '(bird's) wing'
37. <i>-apa</i>	pair of	<i>sandalia</i> 'sandals'
38. <i>-itf</i>	bundle	<i>manaketfi</i> 'bundle of açai', <i>deritfi</i> 'bundle of banana'
39. <i>-yami</i>	piece (of cloth)	<i>yarumakasi-yami</i> 'piece of cloth'
40. <i>-sawa</i>	group	<i>maʒe-sawa</i> 'a group of birds'

Appendix 2. Derivational Affixes Used as Classifiers

AFFIX	GLOSS	EXAMPLES
1. <i>-dawa</i>	corner, limited space	<i>maka-dawa</i> 'room; still part of a river', <i>kajisana-dawa</i> 'part of a lake with stagnant water'
2. <i>-iphina</i>	a quarter	<i>pa-iphina</i> 'a quarter of manioc bread'
3. <i>-kada</i>	a day	<i>pa-kada</i> 'one day'
4. <i>-kawa</i>	leg, handle, any- thing resembling a leg	<i>sidu-kawa</i> 'the long part of an arrow', <i>huni-kawa</i> 'manioc trunk'

5.	<i>-kena</i>	branch	<i>heku-kena</i> 'tree branch', <i>dika-wana-kena</i> 'crab's leg'
6.	<i>-kuda</i>	trunk	<i>heku-kuda</i> 'tree trunk'
7.	<i>-kuma</i>	smoke-like	<i>isa-kuma</i> 'fire-smoke', <i>iya-kuma</i> 'cloud' (rain-smoke)
8.	<i>-kuya</i>	extended part	<i>maka-kuya</i> 'extended part of a river'
9.	<i>-kwa</i>	flat surface	<i>enu-kwa</i> 'sky', <i>hipa-kwa</i> 'stony surface'
10.	<i>-khi</i>	thread	<i>piasa-khi</i> 'a thread of piaçaba (palm-fibre)'
11.	<i>-kuma</i>	side	<i>nayã-ji-kuma</i> 'the side where they live'
12.	<i>-naki</i>	long handle	<i>papiuni-naki</i> 'a broom'
13.	<i>-ñapi</i>	bone	<i>waweda-ñapi</i> 'jaw' (chin-bone)
14.	<i>-pada</i>	piece of	<i>maka-pada</i> 'half'
15.	<i>-peda</i>	low bush	<i>kanaperi-peda</i> 'grassy bush'
16.	<i>-pina</i>	swamp	<i>maka-pina</i> 'swamp'
17.	<i>-pu.çikuda</i>	mountain	<i>kaduku-pu.çikuda</i> 'sand-mountain'
18.	<i>-pukuda</i>	bush	<i>huni-pukuda</i> 'a bush of manioc'
19.	<i>-pukuipe</i>	turn	<i>u:ni-pukuipe</i> 'turn of a river'
20.	<i>-the</i>	knot	<i>maka-the</i> 'knot'
21.	<i>-thepu</i>	bow	<i>yawi-thepu</i> 'bow'
22.	<i>-thiwa</i>	ravine	<i>maka-thiwa</i> 'ravine'
23.	<i>-wa</i>	heap	<i>pa.çia-wa</i> 'heap of ashes'
24.	<i>-wata</i>	-ful	<i>nunuma-wata</i> 'my mouthful', <i>nukapi-wata</i> 'my handful'
25.	<i>-wathe</i>	joint	<i>nukawa-wathe</i> 'my knee (leg-joint)'

26.	<i>-way</i>	side	<i>panisi-way</i> 'house-wall'
27.	<i>-iwi</i>	small thin	<i>nuthiwi</i> 'eye-lashes', <i>na-ita-niwi</i> 'enclosure'
28.	<i>-wina</i>	pile	<i>iha-wina</i> 'pile of excrement'
29.	<i>-yapi</i>	time span	<i>kamu-yapi</i> 'a year'

Appendix 3. Nominalizing Affixes (Never Used as Classifiers)

AFFIXES	SEMANTICS
1. <i>-ipe</i>	object nominalization
2. <i>-kaʒi</i>	'agent (masculine)'
3. <i>-kaʒu</i>	'agent (feminine)'
4. <i>-kani</i>	'agent'
5. <i>-mi</i>	'object and resultative nominalization; pejorative'
6. <i>-miki</i>	'ancient, old'
7. <i>-si</i>	'object nominalization'
8. <i>-ʒi</i>	'object nominalization'

Appendix 4. Nonproductive Affixes (Never Used as Classifiers)

AFFIXES	SEMANTICS
1. <i>-du</i>	'feminine' (used in kinship nouns), e.g., <i>ha-du</i> 'mother'
2. <i>-ina</i>	'adverbial', e.g., <i>daikina</i> '(in the) afternoon' (<i>daiki</i> 'afternoon')
3. <i>-ita</i>	'adverbial', e.g., <i>de:pita</i> '(at) night' (<i>de:pi</i> 'night')
4. <i>-ʒe</i>	'place', e.g., <i>ya-ka-ʒe</i> 'place, village' (<i>ya-</i> 'to dwell')

5. *-ji* 'masculine' (used in kinship nouns and some nominalizations), e.g., *di-daki-ji* 'his grandson', *di-mina-ji* 'his master'
6. *-jiku* 'place', e.g., *hipe-jiku* 'floor' (*hipe* 'land')
7. *-ju* 'feminine' (used in kinship nouns and some nominalizations), e.g., *di-daki-ju* 'his granddaughter', *di-mina-ju* 'his lady'
8. *-ni* 'nominalizer', e.g., *kuhe-ni* 'crab'
9. *-niri* 'masculine' (used in kinship nouns), e.g., *ha-niji* 'father'
10. *-uku* 'place', e.g., *kaiduku* 'beach' (*kaida* 'sand')
11. *-seji* 'collective', e.g., *talia-seji* 'Tarianas', *pakapi-seji* 'a group of five'
12. *-daji* 'animate', e.g., *kada-daji* 'black ant', *pe-daji* 'old (person)'

Notes

Acknowledgments. I am extremely grateful to my teachers of Tariana—Jovino, José Luiz, Cândido, Graciliano and Rafael Sanchez Brito—and to my teachers of East Tucanoan languages—Tiago Cardoso (Pira-tapuya, Desana) and José Reis (Tucano). My warmest thanks go to Lenita and Elias Coelho de Assis and Silvana and Valteir Martins for their hospitality and patience. I am also greatly indebted to Colette Craig, R. M. W. Dixon, Ian Green, Rebecca Green, Mark Harvey, Ulrike Mosel, Masayoki Onishi, Kristina Sands, Günter Senft, and an anonymous reviewer for their comments and assistance. All errors are mine.

Abbreviations. The following abbreviations are used: ABSTR = abstract; AFF = affix; AN = animate; AUG = augmentative; AUX = auxiliary; CAUS = causative; CL = classifier; COLL = collective; COMPL = completed action; CURV = curve; DECL = declarative; DEM = demonstrative; DER = derivational; DIM = diminutive; DIST = distant; EMPH = emphatic; EXIST = existential; F, FEM = feminine; FRUSTR = frustrative; FUT = future; GEN = generic; HAB = habitat; IMM = immediate; IMP = impersonal; INAN = inanimate; INSTR = instrument; INT = interrogative; INTR = intransitive; LIM = limited; LOC = locative; MASC = masculine; NAT = natural phenomena; NEG = negative; NF = nonfeminine; NOM = nominalizer; NONPOSS = nonpossessed; OBJ = object; PART = particle; PASS = passive; PERF = perfective; PL = plural; POSS = possessive; PR = progressive; PROB = probability; PURP =

purposive; REC = reciprocal; REL = relative; REM = remote past; REP = repetition; RES = resultative; SEQ = sequential; SG = singular; ST = stative; VERT = vertical; 1 = first person; 2 = second person; 3 = third person.

1. Tariana is spoken by approximately eighty-six adults in two communities, Periquitos and Santa Rosa, in the region of the Uaupés River, Northwestern Amazonia, Brazil. There are minor dialectal variations. All speakers also know more than one Tucanoan language; children speak nothing but Tucanoan languages (see Sorensen 1967 on the multilingualism in this area). Tariana belongs to the Uaupés linguistic area and displays a striking number of structural similarities to the neighbouring East Tucanoan languages, especially Tucano, Desano, Guanano, and Piratapuya. Tariana has never been thoroughly described. There are some word lists (e.g., Koch-Grünberg 1911) and an amateurish grammar by Giacone (1962), full of mistakes in forms and translations. A complete grammar of Tariana is under preparation by the author.

The material on which this paper is based was collected in Sao Gabriel da Cachoeira, Upper Rio Negro, Brazil, in July–August 1991 and January 1994. The dialect described is that of Santa Rosa.

Tariana phonemes are: stops *b, p, d, t, k*; voiceless aspirated stops *ph, th, kh*; fricatives *s, tʃ* (alveopalatal), *h*; nasals *m, n*; palatal *ɲ*; preaspirated *hn, hm, hɲ*; liquid *l*; lateral flap *ɺ*, central flap *r*; glides *w, y*; preaspirated glide *hw*; short and long vowels *a, i, u, e* (each of the short vowels also exists in nasalized form). The syllable pattern is (C)V.

2. See Zubin and Köpcke (1986), for a particularly interesting study of gender assignment in German; also see Corbett (1991:chap. 3), for the analysis of various criteria for gender assignment in the languages of the world and their possible interactions and conflicts.

3. Compare Harrison (1976), for Mokilese; Dixon (1988), for Fijian; Pawley and Sayaba (1990), for Wayan, a Western Fijian language. For a more general discussion see Lichtenberk (1983) and Carlson and Payne (1989).

4. Alpher (1987) provides a survey of markedness of feminine and masculine gender in Australian languages; however, he does not treat the distribution of different concordial systems in these languages.

5. In the case of *hipa*, there is always a phonological process that obscures its morphological shape, which involves (a) consonant preaspiration and (b) monophthongization of a vowel sequence *a + i*, e.g., *Ca + -hipa > Chepa*.

Other phonological processes that occur on the boundary root + classifier include: (a) monophthongization of vowel sequences *a + i > e*; (b) vowel truncation: *u + i > i* (depending on the interaction of accentual properties of a root and a classifier); vowel fusion: $V_i + V_j > V_i$ (see Aikhenvald in preparation).

In the glosses of the examples from Tariana I use + to indicate that a phonological process has taken place over a morphological boundary, e.g., *hanipa* will be glossed as: big + CL:BIG OPEN SPACE; its underlying form *hanu-* 'big' + *-ipa* 'classifier: big open space'.

6. Tariana has lost Proto-Arawak verbal cross-referencing suffixes used to mark direct objects and intransitive subjects of stative predicates. Instead, it uses a peculiar case-marking system for marking grammatical relations. The *-nuku* case is generally used to indicate a topicalized, or emphasized, constituent in a function other than that of a subject of a transitive verb (see Aikhenvald 1994).

7. See note 6.

8. Tariana has about ten morphemes that mark plural of animate nouns, most of them with a lexical distribution.

9. This phenomenon may be illustrated by the following example from Baniwa of Içana (North Arawak, closely related to Tariana). The native speaker tried to explain to the author how one says 'waxing moon' in Baniwa of Içana (Siuci dialect), by describing what actually happens to the moon:

kezi maka-ite-ka kezi ʒi-tawiña-kawa
 moon big-CL:AN-DECL moon 3SG.NF-grow-INTR

'The moon is big, it is growing' (lit., 'moon is a big moon, it is growing').

10. Proto-Arawak reconstructions are generally given here as reconstructed in Payne (1991). As I have shown elsewhere (Aikhenvald 1993), there is no reason to reconstruct aspirated stops for Proto-Arawak; hence, aspiration is omitted from the examples of Proto-Arawak forms cited here.

References

Aikhenvald, Alexandra Y.

1990 *Sovremennyj ivrit* [Modern Hebrew]. Moscow: Nauka.

1994 Grammatical Relations in Tariana. Paper presented at the Forty-Eighth Congress of Americanists, Stockholm, July 1994.

forthcoming *Classe nominal e gênero nas línguas Aruák*. Florianópolis, Brazil: Editora da UFSC.

1994 *Reconstructing Stops in Proto-Arawak: A Reappraisal*. Ms. in preparation *A Grammar of Tariana*.

Allan, Keith

1977 Classifiers. *Language* 53:284–310.

Alpher, Barry

1987 Feminine as the Unmarked Grammatical Gender: Buffalo Girls Are No Fools. *Australian Journal of Linguistics* 7:169–87.

Anderson, Stephen R.

1992 *A-Morphous Morphology*. Cambridge: Cambridge University Press.

Barlow, Michael, and Charles A. Ferguson, eds.

1988 *Agreement in Natural Language: Approaches, Theories, Descriptions*. Stanford: CSLI.

Barnes, Janet

1990 Classifiers in Tuyuca. In *Amazonian Linguistics: Studies in Lowland South American Indian Languages*, edited by Doris L. Payne, 273–92. Austin: University of Texas Press.

Barron, Roger, and Fritz Serzisko

1982 Noun Classifiers in the Siouan Languages. In *Apprehension. Das sprachliche Erfassen von Gegenständen. Teil II. Die Techniken und ihr Zusammenhang in Einzelsprachen*, edited by Hansjakob Seiler and Franz J. Stachowiak, 85–105. Tübingen: Gunter Narr Verlag.

Barz, Richard K., and Anthony V. N. Diller

1985 Classifiers and Standardization: Some South and South-East Asian Com-

- parisons. *In Language Policy, Language Planning and Sociolinguistics in South-East Asia*, edited by David Bradley, 155–84. *Papers in South-East Asian Linguistics* no. 9. Pacific Linguistics, A–67.
- Bhaskararao, Peri, and Sunder K. Joshi
 1985 A Study of Newari Classifiers. *Bulletin of the Deccan College Research Institute*, vol. 44:17–31.
- Birk, David B. W.
 1976 *The MalakMalak Language, Daly River (Western Arnhem Land)*. Canberra: Pacific Linguistics.
- Bisang, Walter
 1993 Classifiers, Quantifiers and Class Nouns in Hmong. *Studies in Language* 17(1):1–51.
- Brüzzi, Alcionilio da Silva A.
 1967 *Observações gramaticais da língua Daxseyé ou Tucano*, Centro de Pesquisas de Iauarete.
- Buller Barbara, Ernie Buller, and Daniel L. Everett
 1993 Stress Placement, Syllable Structure and Minimality in Banawá. *International Journal of American Linguistics* 59:276–89.
- Carlson, Robert, and Doris Payne
 1989 Genitive Classifiers. *In Proceedings of the Fourth Annual Pacific Linguistics Conference*. Eugene: University of Oregon.
- Carroll, Peter
 1976 *Kunwinjku (Gunwinggu): A Language of Western Arnhem Land*. M.A. thesis, Australian National University, Canberra.
- Chapman, Shirley, and Desmond C. Derbyshire
 1991 Paumari. *In Handbook of Amazonian Languages*, vol. 3, edited by Desmond C. Derbyshire and Geoffrey K. Pullum, 161–354. Berlin: Mouton.
- Codrington, Robert
 1885 *The Melanesian Languages*. Oxford: Clarendon Press. (Reprinted 1974, Amsterdam: Philo Press.)
- Coleman, Carolyn
 1982 *A Grammar of Gunbarlang with Special Reference to Grammatical Relations*, Fourth Year Honors Subthesis, Australian National University, Canberra.
- Corbett, Greville G.
 1991 *Gender*. Cambridge: Cambridge University Press.
- Craig, Colette, ed.
 1986a Noun Classes and Categorization. *Typological Studies in Language* 7. Amsterdam: John Benjamins.
- Craig, Colette
 1986b Jacalteco Noun Classifiers: A Study in Language and Culture. *In Noun Classes and Categorization*, edited by Colette Craig, 263–94. *Typological Studies in Language* 7. Amsterdam: John Benjamins.

- 1986c Jacalteco Noun Classifiers. *Lingua* 70:241–84.
- 1990 Chibchan Nominal Classification. Paper presented at the Eighty-Ninth Annual Meeting of the American Anthropological Association, New Orleans, November, 1990.
- 1992 Classifiers in a Functional Perspective. *In Layered Structure and Reference in a Functional Perspective*, edited by Michael Fortescue, et al., 277–301. Amsterdam: John Benjamins.
- 1994 Classifier Languages. *The Encyclopedia of Language and Linguistics*, vol. 2, edited by Ron E. Asher, 565–69. Oxford: Pergamon Press.
- DeLancey, Scott
- 1986 Toward a History of Thai Classifier System. *In Noun Classes and Categorization*, edited by Colette Craig, 437–52. *Typological Studies in Language* 7. Amsterdam: John Benjamins.
- Denny, J. Peter
- 1976 What Are Noun Classifiers Good For? Papers from the Twelfth Annual Regional Meeting of the Chicago Linguistic Society 12:122–32.
- Derbyshire, Desmond C., and Doris L. Payne
- 1990 Noun Classification Systems of Amazonian Languages. *In Amazonian Linguistics*, edited by Doris L. Payne, 243–72. *Studies in Lowland South American Indian Languages*. Austin: University of Texas Press.
- Dixon, R. M. W.
- 1982 Where Have All the Adjectives Gone? and Other Essays in Semantics and Syntax. Berlin: Mouton.
- 1986 Noun Classes and Noun Classification in Typological Perspective. *In Noun Classes and Categorization*, edited by Colette Craig, 105–12. *Typological Studies in Language* 7. Amsterdam: John Benjamins.
- 1988 A Grammar of Boumaa Fijian. Chicago: University of Chicago Press
- 1994 Ergativity. Cambridge: Cambridge University Press.
- Eather, Browyn
- 1990 A Grammar of Nakkara (Central Arnhem Land Coast). Ph.D. diss., Australian National University, Canberra.
- Evans, Nicholas
- forthcoming Head Classes and Agreement Classes in the Mayali Dialect Chain. *In Nominal Classification in Aboriginal Australia*, edited by Mark Harvey and Nick Reid. Pacific Linguistics Research School of Pacific Studies, Australian National University, Canberra.
- Foley, William A.
- 1986 The Papuan Languages of New Guinea. Cambridge Language Surveys. Cambridge: Cambridge University Press.
- 1991 The Yimas Language of New Guinea. Stanford: Stanford University Press.
- Ford, Lysbeth J.
- 1990 The Phonology and Morphology of Bachamal (Wogait). M.A. thesis, Australian National University, Canberra.

Giacone, Padre Antonio

- 1962 Pequena Gramática e Dicionário da língua Taliaseiri, ou Tariana. Salvador: Escola Tipográfica Salesiana.

Gonçalves, Cristina H. R. C.

- 1987 Concordância em Munduruku. Campinas: Editora da Unicamp.

Green, Diana, and Harold Green

- 1972 Surface Grammar of Palikur. Brasília: Summer Institute of Linguistics.

Green, Rebecca

- 1987 A Sketch Grammar of Burarra. Fourth Year Honors Thesis, Australian National University, Canberra.

Harrison, Sheldon P.

- 1976 Mokilese Reference Grammar. Micronesia: Pali Language Texts.

Harvey, Mark

- 1987 The Warray Language from Adelaide River. M.A. thesis, Australian National University, Canberra.
- 1992 The Gaagudju People and their Language. Ph.D. thesis, University of Sydney.
- 1994 Head and Agreement Classes: An Areal Perspective. Ms.

Heath, Jeffrey

- 1984 Functional Grammar of Nunggubuyu. Canberra: Australian Institute of Aboriginal Studies.

Herbert, Robert K.

- 1991 [1993] Patterns in Language Change, Acquisition and Dissolution: Noun Prefixes and ConCORDS in Bantu. *Anthropological Linguistics* 33:103–34.

Holmquist, Jonathan C.

- 1991 [1993] Semantic Features and Gender Dynamics in Cantabrian Spanish. *Anthropological Linguistics* 33:57–81.

Hurd, Conrad

- 1977 Nasioi Projectives. *Oceanic Linguistics* 16:111–78.

Koch-Grünberg, Theodor

- 1911 Aruak-sprachen Nordwestbrasilien und der angrenzenden Gebiete. *Mitteilungen der Wiener anthropologischen Gesellschaft*, vol. 41:33–153, 203–82.

Lakoff, George

- 1986 Classifiers as a Reflection of Mind. In *Noun Classes and Categorization*, edited by Colette Craig, 13–52. *Typological Studies in Language* 7. Amsterdam: John Benjamins.

Lee, Jennifer

- 1987 Tiwi Today. A Study of Language Change in a Contact Situation. *Pacific Linguistics*, Series C-No. 96. Canberra.

Lichtenberk, Frantisek

- 1983 Relational Classifiers. *Lingua* 60:147–76.

McKay, Graham R.

- 1975 Rembarnga. A Language of Central Arnhem Land. Ph.D. thesis, Australian National University, Canberra.

Merlan, Francesca

- 1983 Ngalakan Grammar, Texts and Vocabulary. Pacific Linguistics, Series B-No. 89. Canberra.

Merlan, Francesca, Steven P. Roberts, and Alan Rumsey

- forthcoming New Guinea "Classificatory Verbs" and Australian Noun Classification: A Typological Comparison. *In* Nominal Classification in Aboriginal Australia, edited by Mark Harvey and Nick Reid. Pacific Linguistics, Research School of Pacific Studies, Australian National University, Canberra.

Mithun, Marianne

- 1984 The Evolution of Noun Incorporation. *Language* 60:847-94.
 1986 The Convergence of Noun Classification Systems. *In* Noun Classes and Categorization, edited by Colette Craig, 379-98. *Typological Studies in Language* 7. Amsterdam: John Benjamins.

Mosel, Ulrike

- 1983 Adnominal and Predicative Possessive Constructions in Melanesian Languages. *Arbeiten des Kölner Universalien-Projekts*, Nr. 50.
 forthcoming Saliba. Unterschleissheim: Lincom Europa.

Mosel, Ulrike, and Ruth Spriggs

- 1992 A Sketch Grammar of Teop. Ms.

Oates, Lynette F.

- 1964 A Tentative Description of the Gunwinggu Language (of Western Arnhem Land). *Oceania Linguistic Monographs*, No. 10. Australian Institute of Aboriginal Studies, Canberra.

Osborne, Charles R.

- 1974 The Tiwi Language. Australian Institute of Aboriginal Studies, Canberra.

Pawley, Andrew, and Timothy Sayaba

- 1990 Possessive-marking in Wayan, a Western Fijian Language: Noun Class or Relational System. *In* Pacific Island Languages: Essays in Honour of G. B. Milner, edited by Jeremy H. C. S. Davidson, 147-71. Honolulu: University of London and University of Hawaii Press.

Payne, David L.

- 1991 A Classification of Maipuran (Arawakan) Languages Based on Shared Lexical Retentions. *In* Handbook of Amazonian Languages, vol. 3, edited by Desmond C. Derbyshire and Geoffrey K. Pullum, 355-500. Berlin: Mouton.

Payne, Doris L.

- 1987 Noun Classification in the Western Amazon. *Comparative Linguistics of South American Indian Languages*, edited by Mary Ritchie Key. *Linguistic Sciences* 9:21-44

- 1990 The Pragmatics of Word Order: Typological Dimensions of Verb Initial Languages. Berlin: Mouton.
- Rehg, Kenneth
1981 Ponapean Reference Grammar. Honolulu: University of Hawaii Press.
- Rodrigues, Aron D.
1994 Nominal Classification in Kariri. Paper presented at the Forty-Eighth International Congress of Americanists, Stockholm, July 1994.
- Rosen, Sarah
1989 Two Types of Noun Incorporation: A Lexical Analysis. *Language* 65:294–317.
- Sands, Kristina
1994 Nominal Classification in Australian Languages. Ms.
- Schauer, Stanley, and Junia Schauer
1978 Una gramática del Yucuna. *Artículos en lingüística e campos afines*, no. 5, Bogotá: Instituto Lingüístico de Verano.
- Seiler, Hansjakob
1986 Apprehension. *Language, Object and Order. Part III. The Universal Dimension of Apprehension*. Tübingen: Gunter Narr Verlag.
- Senft, Günter
1993 A Grammaticalization Hypothesis on the Origin of Kilivila Classificatory Particles. *Sprachtypologische Universalforschungen (STUF)* 46:100–112. Berlin.
- Sorensen, Arthur
1967 Multilingualism in the Northwest Amazon. *American Anthropologist* 69: 670–84.
- Wilson, Peter J.
1992 Gramática del Achagua (Arawak). Bogotá: Instituto Lingüístico de Verano.
- Worsley, Peter M.
1954 Noun-classification in Australian and Bantu: Formal or Semantic? *Oceania* 24(4):275–88.
- Zalizniak, Andrei A.
1967 Russkoje imennoje slovoizmenenije [Russian Nominal Inflection]. Moscow: Russkij jazyk.
- Zubin, David, and Klaus M. Köpcke
1986 Gender and Folk Taxonomy: the Indexical Relation between Grammatical and Lexical Categorization. In *Noun Classes and Categorization*, edited by Colette Craig, 139–80. *Typological Studies in Language* 7. Amsterdam: John Benjamins.