Clause Types

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0. Introduction

There are at least four senses in which one can talk about clause or sentence types in a language. One way is in terms of the distinction between declarative, interrogative, and imperative sentences. This distinction, really one of sentence type, is discussed elsewhere in this anthology, in Chapter I.5 on Speech Act Distinctions in Syntax. A second sense of clause type is represented by the distinction between main clause and subordinate clause, and among different types of subordinate clauses. Issues related to this sense are discussed in the chapters on subordination, such as Chapter II.2 on Complementation and Chapter II.3 on Relative Clauses. A third sense of clause type concerns the way the same event or situation can be spoken about, from different perspectives, with grammatical consequences such as voice and pragmatic consequences such as topic and focus. This kind of variation is discussed in Chapter I.7 on Information Packaging in the Clause. The fourth sense, the one discussed in this chapter, involves different types of clauses in terms of their internal structure, primarily surrounding different types of predicates. Here, the most basic distinction is between verbal and nonverbal predicates. In much of this chapter, differences in clause type hinge on the part of speech of words serving in predicates, to which Chapter I.1 on Parts-of-Speech Systems is relevant. Among clauses with verbal predicates, we can make further distinctions based on the argument structure of the verb, including the distinction between transitive and intransitive clauses and finer distinctions. These are discussed in section 2 below. We first examine, in section 1, different types of clauses with nonverbal predicates.

1. Nonverbal predicates

There are three types of clauses with nonverbal predicates whose properties vary considerably across languages. These are adjectival predicates, nominal predicates, and locative predicates. In English, all three of these predicates occur with the copula verb *be*, as in (1).

(1) a. My dog is *black*.
     b. My dog is *a cocker spaniel*.
     c. My dog is *in the house*.

In all three of these sentences, it is useful to think of the element following the form of the verb *be*, rather than *be* itself, as the real predicate. The verb *be* is more of a function word than a predicate; its function can be thought of as combining with nonverbal predicates to form what is syntactically a verbal predicate. While all three of these types of clauses with nonverbal predicates are similar in English, all employing a form of the verb *be*, it is more common crosslinguistically for languages to treat at least one of these types differently from the other two, and occasionally to treat all three in different ways.

Some languages lack copulas entirely, expressing nonverbal predicates directly. For example, in Murinypata (Walsh 1976), a language isolate spoken in northern Australia, all three types of nonverbal predicates are simply juxtaposed with their

subjects, without any verbal element. Each of the three types of predicates illustrated for English in (1) are illustrated for Muɹinypata in (2).

(2)   a.   panŋun   kanʸi-ka   putput
            woman   this-TOPIC   pregnant
            'this woman is pregnant'

    b.   paɲu-ka   lawaŋga
            that.REMOTE-TOPIC   wallaby
            'that's a wallaby'

    c.   nukunu-ka   ŋaɹa   ḍa   wiɹit
            3SG.MASC-TOPIC   LOC   place   bed
            'he's on the bed'

Note that it is sometimes important to distinguish clauses with nonverbal predicates from nonverbal clauses. The English sentences in (1) involve nonverbal predicates, but they are not nonverbal clauses, since they contain a verb, the copula verb. Examples like those in (2), however, where no copula is used, are not only clauses with nonverbal predicates, but are also nonverbal clauses.

1.1. Types of copulas

Some comment is necessary about the range of elements that might be termed copulas, forms that are used with nonverbal predicates. Such elements are most commonly verbs, as with the English copula *be*. In some languages, they have grammaticized from verbs with more specific meanings, like 'sit', and still have such meaning in some contexts. For example, in Wambaya (Nordlinger 1998), a West Barkly language spoken in northern Australia, the verb meaning 'sit' is also used as a copula with both locative and nominal predicates, as in (3).

(3)   a.   mirra   ngirr-aji   nganaarra-ni
            sit   1PL.EXCL-HABIT.PAST   Brunette.Downs-LOC
            'we stayed at Brunette Downs'

    b.   ini   gi-n   galyurringi   mirra
            this   3SG-PROG   water   sit
            'this is water'

In some languages, the words serving the function of copulas are nonverbal. For example, in Nuer, a Nilotic language spoken in Sudan, there are two copulas, one used with singular subjects, the other with plural subjects, that are historically derived from the singular and plural third person pronouns, but which are now used as copulas, even with subjects that are first or second person, as in (4).

(4)   ɛ   ɣän   dec
        be.SG   1SG   soldier
        'I am a soldier'

The morpheme ɛ functions elsewhere in Nuer as a third person singular pronominal clitic, as in (5), but in (4) it has grammaticized as a nonverbal copula.

(5)   cɔŋ-ɛ
    dance-3SG
    'he is dancing'

Similarly, in Swahili, a Bantu language spoken in east Africa, the copula is nonverbal. Verbs in Swahili inflect for the person, number, and noun class (NC) of their subject (and in some cases, their object) and for tense, as in (6a), but the copula does not inflect for any of these categories, and takes the invariant form *ni*, as in (6b), showing that it is not a verb.

(6)　a.　wa-toto　　　　　wa-na-cheza　　　　　　mpira.
　　　　　NC$_2$(PLUR)-child　3PL.NC$_2$-PRES-play　　　ball
　　　　　'the children are playing ball'

　　　b.　wa-toto　　　　ha-wa　　　　ni　wa-dogo.
　　　　　NC$_2$(PL)-child　this-NC$_2$(PL)　be　NC$_2$(PL)-small
　　　　　'these children are small'

In other languages, the element that combines with the nonverbal predicate is phonologically bound as a suffix or clitic to the predicate expression. For example, in Eastern Pomo (McLendon 1975), a Hokan language spoken in California in the United States, a clitic is added to adjectives or locative case-marked nouns, when they are used predicatively, as in (7).

(7)　　a.　　báhe^ʔ　qo·dí-ʔè
　　　　　　that　　good-COPULA
　　　　　　'that one is good'

　　　b.　　ká·y-ṇa-ʔè
　　　　　　ground-on-COPULA
　　　　　　'it's on the ground'

Similarly, in Ngalakan (Merlan 1983), a Gunwinyguan language spoken in northern Australia, a suffix -*me* is added to noun or adjectives when they are serving as predicates, as in (8).

(8)　ŋaykaʔ　　goʔye　ŋu-miṛpara-me-niñ
　　　1SG.ABS　here　　1SG-child-COPULA-PAST.CONTIN
　　　'I was a child here'

Note that the effect of adding the copulative suffix -*me* to a nonverbal predicate in Ngalakan is to create a word that functions as a verb. Once this suffix is added, the resultant form takes verbal affixes; in (8), the resulting verb takes the first person singular subject prefix *ŋu-* and the past continuous suffix -*niñ*. Copulative affixes are often called verbalizing affixes.

Muruwari (Oates 1988), a Pama-Nyungan language spoken in Australia, provides two ways to express adjectival predicates, one with a copula verb, as in (9a), the other analogous to the Ngalakan construction, in which a copulative suffix is added to the adjective, after which it behaves like a verb, taking verbal inflections, as in (9b).

(9)　　a.　marnta　yi-n-ta-yu
　　　　　cold　　　be-REALIS-PAST-1SG
　　　　　'I am cold'

　　　b.　marnta-ma-yu
　　　　　cold-COPULA-1SG
　　　　　'I am cold'

1.2. Adjectival predicates

Adjectival predicates in English are nonverbal because English treats adjectives as a distinct word class from verbs. In many languages, however, the words expressing meanings associated with adjectives in English are simply verbs. In such languages, adjectival predicates are thus not a kind of nonverbal predicate, but simply a type of intransitive verbal predicate. For example, in Cree (Wolfart and Carroll 1981), an Algonquian language spoken in Canada, predicates expressing adjectival meanings exhibit the same grammatical properties as other verbs. Compare the forms of the Cree word for 'sleep' in (10) with the forms in (11) of the Cree word for 'big', used predicatively. (In (10c) and (11c), there is a prefix for first person and a suffix for first person singular.)

(10) a. nipā-w   b. nipā-wak   c. ni-nipā-n
          sleep-3SG   sleep-3PL   1-sleep-1SG
          'he/she sleeps'   'they sleep'   'I sleep'

(11) a. mišikiti-w   b. mišikiti-wak   c. ni-mišikiti-n
          big-3SG   big-3PL   1-big-1SG
          'he/she is big'   'they are big'   'I am big'

The identical morphology of the forms in (10) and (11) illustrates how the Cree word for 'big' is a verb, like the word for 'sleep'.

In Lealao Chinantec (Rupp 1989), an Oto-Manguean language spoken in Mexico, adjectival words take verbal morphology, though they differ from other verbs in some respects, and thus belong to a distinct stative class of verbs. As we would expect since they are verbs, they do not require a copula. Rather surprisingly, however, they *can* take a copula, while still bearing verbal morphology themselves. The examples in (12a) and (12b) illustrate these two possibilities (the raised capital letters represent tones).

(12) a. ?i^{H}hiá?^{M} gá:^{M}į   na^{VH}-ma^M
          very   big.INAN.3   CLSFR-tree
          'the tree is very big'

      b. ?i^{H}hiá?^{M} gá:^{M}į   na^{L}-lï^{VH} na^{VH}-ma^M
          very   big.INAN.3   STAT-be.INAN.3   CLSFR-tree
          'the tree is very big'

In some languages, some of the words corresponding in meaning to adjectives in English are verbs, while others belong to a separate nonverbal word class of adjectives, and this can affect whether they occur with a copula or not. For example in Slave (Rice 1989), an Athapaskan language spoken in northern Canada, there is a class of adjectives which require a copula when used predicatively, as in (13).

(13) ?eyá   yá-kįlį
      sick   DISTRIBUTIVE-be
      'they are sick'

However, many other words with adjectival meaning in Slave are simply verbs. For example the word for 'big' is a verb and therefore takes verbal morphology and does not occur with a copula, as illustrated in (14).

(14) yá-nechá.
      DISTRIBUTIVE-big
      'they are big'

In most languages, words with adjectival meaning can be used predicatively either directly or in combination with a copula. A third possibility is provided by Dravidian languages like Malayalam (Asher and Kumari 1997) and Kannada (Sridhar 1990), both spoken in southern India, in which adjectives cannot directly be used predicatively, but must first be nominalized, and then are used with a copula, like normal nominal predicates. The examples in (15) illustrate predicative and attributive uses in Malayalam, showing how an adjective bears a nominal suffix indicating gender and number only when it is used predicatively, as in (15a), and not when it is used attributively, as in (15b).

(15)　a.　ii　　kuṭṭi　nalla-van　　　　aaṇə
　　　　　　　this　child　good-MASC.SG　be.PRES
　　　　　　　'this child is good'

　　　　b.　nalla　kuṭṭi
　　　　　　　good　child
　　　　　　　'the good child'

1.3. Nominal predicates

In English, clauses with adjectival predicates and nominal predicates are similar, both employing the copula verb *be*. There are many languages which are similar to English in this respect, employing a copula verb with both adjectival and nominal predicates. However, there are many languages in which a copula is not necessary with adjectival predicates but is required with nominal predicates. The example in (16a) illustrates how adjectival predicates in Mizo (Chhangte 1989), a Tibeto-Burman language spoken in northeast India, do not involve a copula verb, but employ a structure analogous to that used with verbal predicates, as in (16b), with a subject pronoun immediately preceding the verb, even when there is an independent noun phrase functioning as subject (the superscript '1' denotes tone).

(16)　a.　keel　a　　thii^1
　　　　　　　goat　3SG　dead
　　　　　　　'a goat is dead'

　　　　b.　Dou^{1}a　a　　zuang^1
　　　　　　　Dova　3SG　jump
　　　　　　　'Dova is jumping'

With nominal predicates, however, a copula verb is required, as in (17), with the nominal predicate preceding the subject pronoun and the copula verb.

(17)　ka　　aar^1　a^1　nii
　　　　1SG　hen　3SG　be
　　　　'it is my hen'

There are also many languages in which no copula is used with either adjectival or nominal predicates. The examples in (18) from Gude (Hoskison 1983), a Chadic language spoken in Nigeria and Cameroon, illustrate clauses with adjectival and nominal predicates.

(18)　a.　gusə　nə　　minə
　　　　　　　short　SUBJ　woman
　　　　　　　'The woman is short'

b.　　nwənwu　nə　　Kwalii
　　　chief　　SUBJ　Kwalii
　　　'Kwalii is a chief'

In both clauses in (18), the predicate expression occurs at the beginning of the clause, without any marking, followed by the subject. But the clauses in (18) are distinct in form from verbal clauses in Gude, in that verbal clauses normally contain an aspect marker, as in (19).

(19)　agi　　　adənə　nə　　Musa　ɗəfəna
　　　CONTIN　eat　　SUBJ　Musa　mush
　　　'Musa is eating mush'

Thus, even in the absence of a copula, clauses with adjectival or nominal predicates may have properties distinguishing them from clauses with verbal predicates.

In most languages in which adjectival predicates occur with a copula, the noun occurs with the same copula, as in English. However, in Purki (Rangan 1989), a Tibeto-Burman language spoken in India, adjectival predicates and nominal predicates occur with different copulas, as in (20).

(20)　a.　kʰo　rgyalpoik　in-min
　　　　　3SG　king　　　be-PAST
　　　　　'he was a king'

　　　b.　kʰo　rḍamo　　ḍuk
　　　　　3SG　beautiful　be.PRES
　　　　　'she is beautiful'

In (20a), we get a copula verb *in* with a nominal predicate, while in (20b) we get a different copula verb, *ḍuk*, with an adjectival predicate.

Similarly, in Mauka (Ebermann 1986), a Mande language, there is a copula which is used with predicate adjectives but which cannot be used with nominal or locative predicates, as in (21).

(21)　dí̀　　à　　tímí
　　　honey　be　sweet
　　　'honey is sweet'

Nominal predicates occur with the same copula as locative predicates, but they also occur with a postposition meaning 'like'. Example (22a) illustrates the use of this copula with a locative predicate, (22b) with a nominal predicate:

(22)　a.　sò　　yè　　tú　　lɔ́
　　　　　horse　be.at　forest　in
　　　　　'horses are in the forest'

　　　b.　sò́　yè　　sòò　　lɛ́
　　　　　horse　be.at　animal　like
　　　　　'horses are animals'

In Logo (Tucker 1940/1967), a Nilo-Saharan language spoken in Zaire, there are two copulative suffixes, one that is usually used with nominal predicates and the other with adjectival predicates. Nominal predicates normally occur with a copulative suffix -*e*, as in (23).

(23)   ma   ago-e
         1SG   man-COPULA
         'I am a man'

Adjectival predicates in Logo normally take a different suffix *-ro*, as in (24).

(24)   a'di   tovo-ro
         3SG   lazy-COPULA
         'he is lazy'

But this association with nouns and adjectives is not rigid, and it is possible to get each of these suffixes with the other type of complement. The example in (25a) illustrates a nominal predicate with *-ru* (an alternate form of *-ro*) while (25b) illustrates an adjectival predicate with *-e*.

(25)   a.   mí   kugú-ru
                2SG   thief-COPULA
                'you are a thief'

        b.   'dia   alo   tani-e
                only one   good-COPULA
                'one only is good'

The difference between these two copulas is thus apparently a semantic one. One hypothesis consistent with these examples (and other examples cited by Tucker) is that *-e* denotes a more permanent state while *-ro* denotes a more temporary state. Since the properties represented by nouns are permanent more often than those represented by adjectives, we would expect to get *-e* more often with nouns and *-ro* more often with adjectives.

     In some languages, nominal predicates exhibit the same grammatical properties as verbal predicates, including relevant morphology. The example in (26) illustrates this for Lango (Noonan 1992), a Nilotic language spoken in Uganda.

(26)   a.   án   à-dáktâl
                1SG   1SG-doctor.HABIT
                'I am a doctor'

        b.   à-tíyô
                1SG-work.HABIT
                'I work'

In both sentences in (26), the predicate word bears the first person singular prefix *à* as well as habitual aspect marking, which is realized by high-low tone (marked by ˆ) on the last syllable: in (26a), the form of the noun for 'doctor' in its predicate use is *dàktâl*, while in other contexts, it is *dàktàl* . Note that nouns are in other respects quite distinct from verbs in Lango. For example, they occur with distinct nominal plural forms, as in *dàktǝlê* 'doctors'. Note that when the noun is modified, the same verbal morphology occurs on the noun, as in (27).

(27)   án   à-dáktâl   à   bɛr
         1SG   1SG-doctor.HABIT REL good
         'I am a good doctor'

     Clauses with nominal predicates referring to the past or future in Lango normally occur with a separate verb, otherwise meaning 'stay', functioning as a copula. For past time reference, the perfective form of this verb is used, as in (28a), while for

future time reference, a form of the verb for 'come' is used, followed by the infinitival form of the verb for 'stay', as in (28b).

(28) a. án   à-bédò   dàktàl
          1SG   1SG-stay.PERF   doctor
          'I was a doctor'

      b. òkélò bínô   bèdò   rwòt
          Okelo 3SG.come.HABIT stay.INFIN   king
          'Okelo will be king'

1.4. Equational clauses vs. clauses with true nominal predicates

There are two types of nominal predicates, though most languages do not appear to treat them distinctly. The two types are illustrated for English in (29).

(29) a. Nancy is a lawyer.
      b. Sally Smith is the head of this department.

The predicate in (29a) is nonreferential and can be viewed as denoting the generic kind "lawyer". The predicate in (29b) is referential and identifies the individual denoted by the predicate with the individual denoted by the subject. Both types of clauses with nominal predicates are often referred to as "equational", but strictly speaking, the term is only appropriate the second of the two types in (29). In true equational clauses, the subject and predicate can be reversed; we can thus reverse (29b) as (30), with the only difference in meaning being a possible difference in topic and focus.

(30) The head of this department is Sally Smith.

Clauses with nonreferential nominal predicates – or true nominal predicates, as I will call them – cannot be easily reversed. If we try reversing the subject and predicate in (29a), with a true nominal predicate, we get the very archaic sentence *??A lawyer is Nancy*. In so far as this is acceptable, *Nancy* is still the subject and *a lawyer* is still the predicate, and its status is the same as *??Tall is Nancy,* where it is clearer that *Nancy* is subject (cf. *??Tall are Nancy and her mother*). True nominal predicates can be thought of as being more like adjectival predicates, denoting properties of the subject: (29a) attributes to Nancy the property of being a lawyer just as *Nancy is tall* attributes to Nancy the property of being tall.

The difference between equational clauses and true nominal predicate clauses usually corresponds in English to whether the nominal predicate is grammatically definite or grammatically indefinite, as in (31).

(31) a. My dog is the cocker spaniel.
      b. My dog is a cocker spaniel.

However, the difference between the two predicate noun phrases in (31) is quite different from the difference between definite and indefinite noun phrases in other syntactic contexts, as in (32).

(32) a. I saw the cocker spaniel.
      b. I saw a cocker spaniel.

In (32b), *a cocker spaniel* is referential, but refers to a cocker spaniel that is not known to the hearer. In (31b), in contrast, *a cocker spaniel* is nonreferential.

Many languages do not distinguish equational clauses from true nominal predicate clauses. For example, in Kutenai, a language isolate spoken in western Canada and the United States, (33) can have either interpretation.

(33) ṅin-i   xaxas
      be-INDIC   skunk
      'it was a skunk; it was the skunk'

However, Kusaiean (Lee 1975), an Austronesian language spoken in Micronesia, distinguishes equational clauses from true predicate nominal clauses by employing a copulative particle *pa* between the two noun phrases in an equational predicate sentence, as in (34a), while not employing any overt marker in a true predicate nominal sentence, as in (34b).

(34) a. mwet   luti   sac pa   mwet sacn
          person teach   the COPULA person   that
          'the teacher is that person'

      b. mwet   sacn muhtwacn se
          person that woman   one
          'that person is a woman'

The predicate in a true predicate nominal sentence can occur with the indefinite determiner *se* 'one', as in (34b), or without it, as in (35).

(35) ma   sacn   usr soko
      thing that   banana plant
      'that thing is a banana plant'

A second example of a language distinguishing equational clauses from true nominal predicate clauses is West Greenlandic (Fortescue 1984), an Eskimo-Aleut language. Equational clauses in West Greenlandic involve a nonverbal copular particle placed between the two noun phrases, as in (36a), while true nominal predicate clauses involve a verbalizing (copulative) suffix on the predicate noun, as in (36b).

(36) a. Hansi   tassa   pisurtaq
          Hansi   be   leader
          'Hansi is the leader'

      b. illuqarvi-u-vuq
          town-COPULA-3SG.INDIC
          'it is a town'

A third example is Cebuano, an Austronesian language spoken in the Philippines. In fact, Cebuano can be said to represent the difference in meaning in a rather transparent way. Compare the equational clause in (37a) with the true nominal predicate clause in (37b).

(37) a. ang   duktur   ang   babayi
          TOPIC   doctor   TOPIC   woman
          'the woman is the doctor'

      b. duktur   ang   babayi
          doctor   TOPIC   woman
          'the woman is a doctor'

Noun phrases in Cebuano normally require one of a set of noun phrase markers or articles like the so-called topic marker *ang,* which occurs twice in (37a) and once in

(37b). The equational clause in (37a) consists of a sequence of two noun phrases *ang duktur* 'the doctor' and *ang babayi* 'the woman', and the order of the two noun phrases can be reversed as in English, again with a difference that can be characterized in terms of topic and focus, except that in Cebuano the first noun phrase will normally be interpreted as the focus, the second one as topic. The equational nature is represented by the fact that both parts are noun phrases. The predicate in the true nominal predicate sentence in (37b), however, consists of just a noun, without any marker like *ang*. Although it can take modifiers, it is not really a noun phrase at all, but rather one of a number of structures that can occur as instances of predicates. Furthermore, any predicate, nominal or verbal, can combine with noun phrase markers like *ang* to form a noun phrase. Given a simple sentence like (38a), for example, we can take a predicate like *nagtawag nakuq* 'was calling me', and combine it with a marker like *ang* to form a noun phrase *ang nagtawag nakuq* with the meaning 'the one who was calling me', which can occur as an argument of the verb, as in (38b).

(38)   a.   nag-tawag   ang   babayi   nakuq.
            SUBJ.FOCUS.DUR-call   TOPIC   woman   1SG.NONTOPIC
            'the woman was calling me'

       b.   babayi   ang   nag-tawag   nakuq.
            woman   TOPIC   SUBJ.FOCUS:DUR-call   1SG.NONTOPIC
            'the one who was calling me was a woman'

The syntactic construction whereby a predicate like *nagtawag nakuq* 'was calling me' can be combined with a marker like *ang* to form a noun phrase is the same construction whereby what corresponds to noun phrases in European languages are formed: a noun phrase like *ang babayi* 'the woman' is formed by combining the marker *ang* with a predicate, in this case the nominal predicate *babayi* 'woman'. With this as background, it should be clear that *duktur* 'doctor' in the true nominal predicate sentence in (37b) is not a noun phrase, in contrast to *ang duktur* 'the doctor' in the equational sentence in (37a). Cebuano not only clearly distinguishes equational clauses from true nominal predicate clauses, but does so in a way that makes the difference transparent, since unlike English, where both types of clauses involve noun phrases in predicate position, Cebuano uses what is syntactically a type of predicate expression in true nominal predicate clauses, but a noun phrase in equational clauses.

1.5. Optional copulas

Copulas are obligatory with nonverbal predicates in some languages, while in other languages they are not. In some instances, the use of a copula is simply grammatically optional, and is not grammatically conditioned. The examples in (39) from Tamang (Mazaudon 1976), a Tibeto-Burman language of Nepal, illustrate the word *căca* 'small' functioning as an adjectival predicate with a copula (in 39a) and without a copula (in 39b).

(39)   a.   ná-la   ǐm   căca   mú-la
            1SG-GEN   house   small   be-INDEF
            'my house is small'

       b.   cū   mĕnto   căca
            this   flower   small
            'this flower is small'

In other instances, the use of a copula is grammatically conditioned. For example, in Sanuma (Borgman 1990), a Yanomámi language spoken in Venezuela and

Brazil, no copula is used in the present tense, as illustrated in (40a), while a copula is used in the past and future tenses, as illustrated in (40b) and (40c).

(40) a. hisa   sa
          young.man   1SG
          'I am a young man'

      b. palata   ti   hösösö   ku-o-ma
          rubber   CLSFR   resin   be-PUNCT-COMPL
          'it was rubber'

      c. kaikana   te   ku-ki   kite
          headman   3SG be-FOCUS FUT
          'he will be headman'

In Evenki (Nedjalkov 1997), a Tungus language spoken in Siberia, the copula is obligatory, as in (41a), except in the present third singular, as illustrated in (41b).

(41) a. bi   alagumni   bi-che-v
          1SG   teacher   be-PAST-1SG
          'I was a teacher'

      b. minngi ami-m   bejumimni   (bi-si-n)
          my   father-1SG.POSS   hunter   be-PRES-3SG
          'my father is a hunter'

The optionality of copulas can also vary with the type of predicate. For example, in Chalcatongo Mixtec (Macaulay 1996), spoken in southern Mexico, the copula is normally required with nominal predicates, but is optional with adjectival predicates. The example in (42a) illustrates a clause with a copula and a nominal predicate, (42b) illustrates a similar clause with an adjectival predicate, and (42c) illustrates a clause with an adjectival predicate without a copula.

(42) a. ku   ɨ   čàà   ká?nũ
          be.POTEN.3 one man   big
          'he will be a big man'

      b. ku   sŭkŭ
          be.POTEN.3 tall
          'he will be tall (when he grows up)'

      c. čá?ã   xa-lúlí
          dirty   NOMIN-small
          'the boy is dirty'

In Kombai (De Vries 1993), an Awyu language spoken in Irian Jaya in Indonesia, there is a copulative suffix -a that is attached to various kinds of nonverbal predicates. With nominal predicates, it is optional; in (43a), it is used, while in (43b) it is not.

(43) a. mene   af-a
          this   house-COPULA
          'this is a house'

      b. mene   a
          this   house
          'this is a house'

It is also optional with adjectival predicates, as illustrated in (44), though it is apparently more common not to use it.

(44)   a.   mofene   rubu-khey-a
              that   bad-ADJ-COPULA
              'that is bad'

         b.   mofene   rubu-khe
              that   bad-ADJ
              'that is bad'

However, it cannot be used if the adjective bears the intensifying suffix *-rabo*, as in (45).

(45)   a   mene   yafe-rabo
           house   this   good-very
           'this house is very good'

It is obligatory, however, if the predicate is a personal pronoun expressing possession, as in (46).

(46)   mene   nuf-a
           this   1SG-COPULA
           'this is mine'

In Korowai, an Awju language closely related to Kombai, there is a copula verb that cliticizes optionally onto both nominal and adjectival predicates. However Van Enk and De Vries (1997) report that the copula is usually present with adjectival predicates but "infrequently present" with nominal predicates. (47a) illustrates the typical adjectival predicate, with the copula, while (47b) illustrates the typical nominal predicate, without the copula. (The suffix glossed 'NEAR' in (47b) signifies a time near to the present, either past or future.)

(47)   a.   nokhu   khakhul   khén-telo-felu-ndé
              we   yesterday   angry-be-NEAR-1SG.REALIS
              'yesterday we were angry'

         b.   yu   nggulun-benè?
              he   teacher-Q
              'is he a teacher?'

1.6 Locative predicates / Existential clauses

1.6.1. Locative copulas

The third common type of nonverbal predicate is that of a locative expression, as in English *My dog is in the house.* Some languages are like English in employing the same copula with locative predicates that is used with adjectival and/or nominal predicates. The examples in (48) illustrate this for Babungo (Schaub 1985), a Niger-Congo language spoken in Cameroon.

(48)   a.   tíi   ŋwāa   lùu   wúu   ndâa
              father   my   be   person   smithy
              'my father is a blacksmith'

> b. fázɨ   kɔ̂   lùu   ŋkèe   kɔ̀jɔ̀ə
>   food   this   be   good   very
>   'this food is very good'

> c. ŋwɔ́   lùu   táa   yìwìŋ
>   3SG   be   in   market
>   'he is in the market

The copula verb *lùu* is used with all three kinds of predicates in (48), with a nominal predicate in (48a), an adjectival predicate in (48b), and with a locative predicate in (48c).

It is very common, however, for a different copula to be used with locative predicates, one that has location as part of its meaning. Such locative copulas are often best glossed 'be at'. We saw above in (28) that Lango uses a verb originally meaning 'stay' as a copula with adjectival and nominal predicates in the past and future tenses. In clauses with locative predicates in Lango, a distinct locative copula is used, as illustrated in (49).

(49)   án   dáŋ   à-tîê   ì   cùkúl
       1SG   also   1SG-be.at:PRESENT.HABIT   at   school
       'I'm also at school'

Similarly, in Koromfe (Rennison 1996), a Niger-Congo language spoken in Burkina Faso, nominal and adjectival predicates occur with a copula *la*, as in (50a) and (50b) (though the order of copula and predicate is different with nominal predicates from its order with adjectival predicates), while locative predicates occur with a locative copula wɛ̃, as in (50c).

(50)   a. mə   la   a   jɔ
          1SG   be   ART   chief
          'I am the chief'

> b. də   lugni   a   bĩnĩã   la
>   3SG   cat.PLUR   ART   black.PLUR   be
>   'his cats are black'

> c. də   wɛ̃   dã̃ãnɛ
>   3SG   be.at   at.home
>   'he is at home'

Some languages commonly use as locative copulas a set of words that vary along some more specific spatial dimension. In Diyari (Austin 1981), a Pama-Nyungan language spoken in Australia, for example, locative predicates occur with one of three verbs, meaning 'sit', 'stand', and 'lie', depending on which orientation better fits, as illustrated in (51).

(51)   a. wiḻa   marapu   ŋama-yi   ŋura-n̪i
          woman   many.ABS   sit-PRES   camp-LOC
          'there are many women in the camp'

> b. ŋapa   pin̪a   pantu-n̪i   pada-yi
>   water   big.ABS   lake-LOC   lie-PRES
>   'there is a lot of water in the lake'

Because of the element of verbal meaning that is in these locative copulas, one could argue that examples like those in (51) do not involve nonverbal predicates, though they

represent the way in which Diyari expresses meaning that other languages express by meaning of nonverbal locative predicates.

Cebuano commonly employs a number of different words in predicate locative clauses that are related to the demonstratives in the language and that vary, not for orientation, but for proximity to hearer and speaker (as well as for tense), as in (52).

(52)   a.   túqa   si   Místir Abáya sa   Amiriká
               there:NOT.NEAR.HEARER:PRES   TOPIC Mr.   Abaya LOC America
               'Mr. Abaya is in America'

        b.   ánhi   siyá   sa   Sibú
               here:NEAR.1PL.INCL:FUT   3SG.TOPIC LOC Cebu
               'he will be here in Cebu'

Despite the fact that these words vary for tense, they are not verbs. The verbal system in Cebuano lacks a distinction between past and present tense and the distinction between future and nonfuture found with verbs is represented very differently than it is with these nonverbal locative words.

1.6.2. Existential clauses

Clauses with locative predicates as a type of clause overlap with what is a distinct category of clause in many languages, that of existential clauses. Consider the three examples in (53) from Ma'anyan (Gudai 1988), an Austronesian language spoken in Kalimantan (Borneo) in Indonesia.

(53)   a.   inehni   naqan   hang   sungking
               mother   be.at   at   kitchen
               'his mother is in the kitchen'

        b.   naqan   erang   kaulun   wawey   mawiney hang tumpuk   yeruq
               be.at/exist   one   CLSFR   woman   beautiful at   village   the
               'there was a beautiful woman in that village'

        c.   sadiq   naqan   tumpuk   eteqen
               olden.time   exist   village   Eteen
               'once upon a time there was a village called Eteen'

All three examples in (53) involve a verb *naqan* 'be at, exist'. The clause is (53a) involves a locative expression *hang sungking* 'in the kitchen' and the verb *naqan* can be considered a locative copula, linking an expression denoting something to which a location is attributed (henceforth the theme) to a nonverbal predicate consisting of a locative expression. The example in (53b) is in some ways similar. Again, it can be considered a locative copula, linking a theme expression (*erang kaulun wawey mawiney* 'a beautiful woman') to an expression denoting a location (*hang tumpuk yeruq* 'in the village'). It can also, however, be viewed as stating the existence of something (a beautiful woman), and can thus be equally well described as existential. The third example, in (53c), does not involve a location; here, only the existence of something is stated. We can say, thus, that (53a) and (53b) are predicate locative clauses and that (53b) and (53c) are existential clauses. This says that (53b) is both a predicate locative clause and an existential clause. Ma'anyan is not unusual in using the same word for a range of functions that includes that of a locative copula and that of an existential word.

Characterizing clauses like (53b) and (53c) as existential in that they state the existence of something is perhaps somewhat misleading. From a discourse point of view, the primary function of such clauses is apparently to introduce a participant into the discourse that is new to the hearer. The contrast between (53a) and (53b) thus corresponds to a pragmatic difference of identifiability, and hence to a grammatical difference in definiteness in English. The example in (53a) does not state the existence of the mother; this is presumably presupposed. In that sense, the example in (53a) is not really existential.

While both (53a) and (53b) can be characterized as involving a locative predicate, Ma'anyan is like many languages in using a grammatically distinct construction when the theme expression is pragmatically nonidentifiable (indefinite): in (53a), the theme expression precedes the verb, in the normal position for subjects in Ma'anyan, while in (53b), the theme expression follows the verb, in a position in which subjects in Ma'anyan are not normally found. It is not clear, in fact, whether the theme expression in (53b) should be considered a subject in Ma'anyan, and a similar question arises for analogous constructions in many other languages. But whether or not the theme expression ought to be considered a subject, the construction in (53b) and (53c) can be characterized as a distinct construction in the language, since the verb occurs at the beginning of the clause and either the subject follows the verb or the clause is impersonal (i.e. subjectless).

English is in fact strikingly similar to Ma'anyan in a number of respects. In English, it is possible to have a predicate locative sentence with either a definite or an indefinite subject, as in (54).

(54)   a.   The dog is in the garden.
          b.   A dog is in the garden.

However, a more natural way to express the meaning of (54b) is as in (55), with a distinct existential construction.

(55)   There is a dog in the garden.

The construction in (55) resembles the Ma'anyan construction in (53b) in that the theme expression follows the verb. A difference is that in English there is a separate word *there* in subject position, and by most criteria, the word *there* functions as the subject (though the theme expression can still control agreement, as in *There are two dogs in the garden*).

Furthermore, the English construction in (55) is restricted to clauses with indefinite subjects. Analogous clauses with a definite subject, as in (56), are rather different in a number of ways.

(56)   There is the dog in the garden.

While the clauses in (54b) and (55) mean approximately the same thing, the clause in (56) means something quite different from (54a) and is arguably a different construction altogether.

Many languages are like Ma'anyan and English in using two different constructions with locative predicates depending on whether the theme is identifiable or not, with a distinct existential construction being used when the theme is nonidentifiable. For example, in Malayalam, there are two locative copulas, the distinction largely depending on the identifiability of the theme. Contrast the two examples in (57).

(57) a.   kuṭṭi   toottatt-il   aaṇə
           child   garden-LOC   be.PRES
           'the child is in the garden'

      b.   meeʝa   meel pustakam uṇṭə
           table   on   book   exist.PRES
           'there is a book on the table'

The copula *aaṇə* in (57a) is the same copula used in sentences with nominal predicates, as in (58) (and adjectival predicates, which must be nominalized to be used predicatively, as illustrated earlier in this chapter in 15a).

(58)   avan   ṭiiccar   aaṇə
         3SG.MASC   teacher   be.PRES
         'he is a teacher'

The choice between the two copulas in (57) when used with locative predicates depends largely on whether the subject is identifiable or not, as is indicated by the English glosses in (57), so that the copula *uṇṭə* can be characterized as existential. The two constructions also differ in their normal word order: with identifiable subjects, as in (57a), the subject most often comes first, followed by the locative expression, while in the existential construction, the locative more often occurs first, followed by the subject. Asher and Kumari note (p. 99) that the use of the two copulas does not exactly line up with the identifiability of the subject, that it is sometimes possible to use the existential verb with an identifiable subject, as in (59), and suggest some possible factors governing this usage, but they note that the contrast between the two uses does normally hinge on the identifiability of the subject.

(59)   uṇṇi   viiṭṭ-il   uṇṭə
         Unni   house-LOC   exist.PRES
         'Unni is at home'

     While there are languages like the ones discussed here which distinguish a predicate locative construction with an identifiable theme from an existential construction with a nonidentifiable theme, there are many other languages in which the same construction is used, whether the theme is identifiable or not. The example in (60) from Mangarayi (Merlan 1982), spoken in northern Australia, can be interpreted either way.

(60)   mawuj   ja-Ø-ni   biyaŋgin   ṇa-boŋgan
         food   3-3SG-be   inside   LOC-box
         'there's food in the box; the food is in the box'

Thus Mangarayi can be said to lack a distinct existential construction.

     The existential constructions in Ma'anyan and English both use verbs in their existential constructions, though English also uses a distinct existential word 'there', which is more like a pronoun than anything else (as reflected by its use in tag questions: *There's a dog in the garden, isn't there*), though one with a highly restricted distribution. In some languages, however, the existential construction does not employ a verb, but rather an existential word whose categorial properties make it different from words in other categories. For example in Cebuano, there is an existential word *may*, illustrated in (61).

(61)   may   bir
         exist   beer
         'there is (was, will be) beer'

While *may* looks verbal to the extent that it occurs in clause-initial position, the normal position for verbs in Cebuano, it lacks the morphological characteristics of a verb, and since other categories, like nouns, can occur in clause-initial position when they are predicates, the position of *may* does not provide any basis for calling it a verb, and its category is thus somewhat indeterminate.

In some languages, the existential construction lacks an overt existential word and consists of just the NP expressing the theme. This is the case in Tolai (Mosel 1984), an Austronesian language of New Britain in Papua New Guinea, as illustrated in (62), where the noun phrase consists of just an article followed by a compound noun meaning 'famine' (literally 'season of hunger').

(62)   a   kilala-na-mulmulum
                ART   season-LINK-hunger
                'there was famine'

1.6.3. Existential clauses for expressing predicate possession

Languages differ considerably in how they express what can be called predicate possession. In some languages, this meaning is expressed with a transitive verb like English *have*, as in (63), in which the possessor occurs as subject and the possessed item occurs as object.

(63)   John has a new car.

However, many languages employ predicate locative or existential clauses to express such meanings, with the possessor expressed as some sort of locative. The examples in (64) illustrate this for Igorot Bontoc (Seidenadel 1909), an Austronesian language spoken in the Philippines.

(64)   a.   wodá   nan   ónash   id   Falidfid
                be.at   ART   sugar.plantation LOC   Falidfid
                'there was a sugar cane plantation at Falidfid'

        b.   wodáy   nan   fákat   is   nan   ongónga
                be.at   ART   nail   LOC   ART   boy
                'the boy has a nail'
                (literally 'a nail is at the boy')

The examples in (64) are almost exactly analogous: both involve the existential word *wodá(y)* (the difference between the two forms is not significant), both have the order Verb-Theme-Location/Possessor; and both use the same locative preposition to mark the location in (64a) and the possessor in (64b) (*is* and *id* are phonological alternants of the same preposition). In many languages, however, predicate possession clauses resemble existential clauses to some extent but the possessor expression is treated somewhat differently. Compare the two examples in (65) from Kannada (Sridhar 1990), a Dravidian language spoken in southern India.

(65)   a.   ka:ŋgaru:-gaḷu   a:stre:liya:-dalli   iruttave
                kangaroo-NOM.PL   Australia-LOC   be.NONPAST.3PL.NEUT
                'Kangaroos live in Australia'

        b.   nana-ge   mu:varu   heṇṇu   makkaḷu   idda:re
                1SG-DAT   three   female   children.NOM.PL be.NONPAST.3PL.HUMAN
                'I have three daughters'

The example in (65a) illustrates a predicate locative sentence, with a noun marked with the locative case functioning as a locative predicate. The example in (65b) illustrates a predicate possession sentence, with the possessed element in the nominative case and the possessor in the dative case, similar to (65a), but with dative case rather than locative case. There is also a difference in the preferred order for the two constructions (Sridhar, p.c.): while the order with the dative-marked possessor in (65b) first is clearly preferred over one with the possessed element in the nominative coming first, there is less clearly any preference for the order of the two noun phrases in (65a).

A possessor can be added to the existential construction in Cebuano illustrated above in (61), but appears as the grammatical topic (subject on some analyses), as in (66), rather than as some sort of locative expression.

(66)   may bir si   Lúling
      exist beer TOPIC Loling
      'Loling has/had beer'

Similarly, Ma'anyan can add a possessor to the existential construction illustrated above in (53c), as in (67).

(67) aku naqan buku
    1SG be.at book
    'I have a book'

Note that the construction in (67) vaguely resembles the locative predicate construction in Ma'anyan illustrated in (53a) above, in that both have an NP preceding the verb, but the meaning associated with the two verbal frames is completely different, since in (53a) it is the preverbal nominal that is the theme, while in (67) it is the postverbal nominal that is the theme, while the preverbal nominal is the possessor.

A distinct way of using existential constructions for expressing the meaning of 'have' is to express the possessor, not as a locative, but as a possessive modifier of the noun possessed. The example in (68a) illustrates this for Imonda (Seiler 1985), a Northern Trans New Guinea language, and in (66b) for Kutenai.

(68) a. ne-na   motorbike kai li-f-me
      2-GEN   motorbike Q lie-PRES-Q
      'do you have a motorbike?'
      (literally: 'does your motorbike exist?')

   b. ni?s pikaks   san ?at   ɬin ?in-s-i   ?a·kawutɬa-?is
      ART earlier.times but HABITUAL must be-OBV-INDIC teepee-3.POSS
      'but in earlier times they must have had tepees'
      (literally 'but in earlier times, their teepees must have been')

1.6.4. Other types of existential clauses

While we are in general not discussing negative clauses in this chapter, it is worth mentioning negative existential clauses here because, unlike most other types of negative clauses in which some other element is negated, the negation in negative existential words is often an inherent part of the predication itself. In other words, while in the example in (69a) from Quechua (Weber 1989), there is a negative word and negative suffix modifying a separate existential word (here just the normal copula verb being used existentially), in some languages there is a single negative existential morpheme, as in the Kutenai example in (69b) and in the Malayalam example in (69c); compare (69c) with the affirmative Malayalam examples above in (57).

(69) a.   mana   papa   ka-ra-n-chu
              NEG   potato   be-PAST-3-NEG
              'there were no potatoes'

      b.   łuʔ-ni   k=ȼikam   niȼtahał
              not.exist-INDIC   SUBORD=come   young.man
              'none of the young men came. '
              (literally 'The young men who came did not exist')

      c.   iviṭe   kooleej   illa
              here   college   not.exist
              'there is no college here'

Another class of existential predicates in some languages involve numerals or quantifier expressions denoting quantity with meanings like 'many' or 'few'. In English, numerals and quantifiers do not generally function as predicates. We thus do not generally say *The men in the room were three* but are more likely to express the intended meaning by saying *The men in the room were three in number* or *There were three men in the room*. In some languages, however, numerals and quantifiers are used freely as predicates. In some such languages, this is because numerals are simply verbs, and hence such clauses are really ones with verbal predicates. This is illustrated in (70) for Kutenai.

(70) a.   n=̵as-ni   titqaƚ
              INDIC=two-INDIC   man
              'there were two men'
              (literally: 'the men were two')

      b.   taxas   yunaqaʔ-ni   suyapi
              then   many-INDIC   white.person
              'then there were a lot of white people'
                                     (literally: 'then the white people were many')

The indicative prefix in (70a) and suffix in both (70a) and (70b) are verbal affixes, illustrating the status of *ʔas* 'two' and *yunaqa* 'many' as verbs. While such clauses are existential, it is misleading to characterize them as nonverbal clauses, since the numeral in these clauses is the predicate. But in some languages, analogous clauses do count as nonverbal clauses in that the numerals are not verbs morphologically, but can still be used as predicates, as in Hanis Coos, an extinct language possibly belonging to the Penutian family that was spoken on the west coast in the United States (Frachtenberg 1922), as in (71). [THE FONT IN (71) MAY NOT APPEAR CORRECTLY IN PDF VERSIONS OF THIS PAPER]

(71) a.   kaȷ̃mîs   han⊃ 1   qai⊃âwas
              five   FUT   the   rollers
              'the rollers will be five (in number)'
              (or 'there will be five rollers')

      b.   yûxwä   û   hîme
              two   his   children
              'he had two children'
              (literally 'his children were two')

1.7. Minor types of clauses with nonverbal predicates

In addition to the three fairly basic types of nonverbal predicates covered in the preceding sections, some less common ones do occur in many languages. The examples in this section, as well as the English sentences used as glosses, illustrate various types of the minor nonverbal predicates. The examples in (72) from Wambaya (Nordlinger 1998) illustrate genitive predicates (not to be confused with what were called predicate possession clauses in sect. 1.6.3 above, expressing meaning like 'I have money'). (The Roman numeral 'IV' in these examples represents a noun class.)

(72) a. yana   ngarrga!
          this.IV.SG.NOM   1SG.POSS.IV
          'this (money) is mine'

      b. bungmanya-nkal   yaniyaga   warnu
          old.woman-DAT.IV   that.IV.SG.NOM   tobacco(IV).NOM
          'that tobacco is the old woman's'

The form of the predicates in these examples is the same form that would occur if these predicates (*ngarrga* 'mine' and *bungmanyankal* 'the old woman's') were occurring as genitive modifiers of nouns. English is somewhat unusual in fact in having a distinct set of pronouns whose basic use is in genitive predicates (*mine, yours, his, hers,* etc.). In Awa Pit (Curnow 1997), a Barbacoan language spoken in Colombia and Ecuador, the forms used as pronominal possessive modifiers of nouns can also be used directly predicatively. The use of *ap* '1sg, poss' as a possessive modifier of a noun is illustrated in (73a), its use as a predicate, followed by a copula verb, in (73b).

(73). a. ap   pimpul
           1SG.POSS   leg
           'my leg'

       b. an   yal=na   ap   ka-y
           this   house=TOPIC   1SG.POSS   be.permanently-NONLOCUT
           'this house is mine'

Many languages do not allow genitive predicates, requiring that the genitive be modifying some nominal element. For example, in Una (Louwerse 1988), a Central New Guinea language spoken in Irian Jaya in Indonesia, one must if necessary repeat the noun denoting what is possessed, as in (74).

(74) a   yina   Karba   yina
      that food   Karba   food
      'that food is Karba's (food)'

Other examples illustrating minor types of nonverbal predicates are given in (75) to (78). The example in (75) from Babungo (Schaub 1985) illustrates a benefactive predicate.

(75) ŋwà'lə   ŋwə́   lùu   fɨ   Làmbí
      letter   this   be   to   Lambi
      'this letter is for Lambi'

The examples in (76) illustrate three sorts of minor nonverbal predicates from Gooniyandi (McGregor 1990), a Bunaban language spoken in northern Australia: (76a) is a purpose predicate; (74b) is a simulative predicate; and (76c) is a predicate denoting origin.

(76)   a.   thangarla   moonyjoo-yoo   ligidd-woo
               toothbrush   tooth-DAT   clean-DAT
               'a toothbrush is for cleaning teeth'

       b.   goornboo   ngooddoo   yoowooloo-jangi
               woman   that   man-like
               'that woman is like a man'

       c.   niyaji   yoowooloo   moolooddja-nhingi
               this   man   Mulurrja-ABL
               'this man is from Mulurrja'

Example (77), from Tamambo (Jauncey 1997), an Austronesian language spoken on Vanuatu, illustrates a predicate representing what some have called a referential expression.

(77)   sora-e   atea   niani   matai   tanume   arua
       talk-NOMIN   one   this   about   devil   two
       'this story is about two devils'

And (78), from Finnish (Sulkala and Karjalainen 1992), involves a comitative (or associative) predicate.

(78)   hän on   minun   kanssa-ni
       3SG be.3SG   1SG.GEN   with-1SG.POSS
       'she/he is with me'

      In some languages, the meaning of 'have' is expressed with a construction like (78): 'A has B' is 'A is with B'. The example in (79) illustrates this in Koyraboro Senni (Heath 1999), a Songhai language spoken in west Africa.

(79)   a   goo-nda   zaŋka   hiŋka
       3SG be.at-with   child   two
       'he has two children'

Note that the copula used in (79) is the one that is used with locative predicates, as in (80a), and distinct from the one used with nominal predicates, illustrated in (80b).

(80)   a.   a   goo   no   baa   sõhoo   da
               3SG be.at there even   now   EMPH
               'it is still there even now'

       b.   a   ga   ti   noŋguru   suub-ante
               3SG IMPERF be   place   chose-PARTCPL
               'it was a select place'

2. Verbal predicates

      Clauses with nonverbal predicates constitute the exception and are apparently less frequent in usage in all languages than clauses with verbal predicates. Because further discussion of topics directly related to verbal predicates occurs elsewhere in this anthology, in the chapters on the Major Functions of the Noun Phrase (I.3, Andrews), Information Packaging in the Clause (I.7, Foley), Lexicalization Patterns (III.2, Talmy) and Passive (I.6, Keenan and Dryer), our discussion here of verbal predicates and of types of verbal clauses is in some ways more cursory – relative to the variety found among languages – than our discussion of nonverbal predicates.

2.1. Transitive vs. intransitive clauses

The most basic distinction among verbal predicates is perhaps that between intransitive and transitive predicates, the former taking a single argument, the latter two (or more) arguments. In many languages, like English, the distinction can be further described by saying that transitive clauses have objects while intransitive clauses do not. This requires that we distinguish transitive clauses with objects from intransitive clauses with adjuncts, illustrated respectively in (81a) and (81b).

(81) a. My dog ate *the hamburger.*
      b. My dog is sleeping *in the basement.*

In English, the distinction between object and adjunct is represented by the fact that adjuncts are usually marked with prepositions while objects are not. In some languages, this distinction is less clearly made grammatically, but is grounded in the idea that objects complete the meaning of the verb in a way that adjuncts do not. Typically, for example, adjuncts can be added in any clause where they are not anomolous. Thus we can add the adjunct *in the basement* to (81a), yielding *My dog ate the hamburger in the basement.*

The grammatical criteria for distinguishing transitive and intransitive clauses may vary considerably from language to language. It is not immediately obvious, for example, whether the verb *qaki?* 'say' in Kutenai, illustrated in (82), is transitive or intransitive, whether the complement clause (*ḵumaȼ ni? paɬkiy* 'the woman laughed') should be considered an object or not.

(82) hu   qaki?-ni   k=umaȼ   ni?   paɬkiy
      1SG   say-INDIC   SUBORD=laugh   the   woman
      'I said that the woman laughed'

But there is a verbal pronominal suffix *-(n)am* in Kutenai which indicates a nonspecific subject, which can be added only to intransitive verbs and not to transitive verbs, as in (83).

(83) n=uwas-nam-ni
      INDIC=hungry-NONSPEC.SUBJ-INDIC
      'people were hungry'

Crucially, this suffix *can* be used on the verb *qaki?* 'say', as in (84), showing that this verb in Kutenai is intransitive, and thus that the complement clause with this verb is not an object.

(84) taxas   qaky-am-ni   k=ȼ   haɬnuxunaqnam-nam
      then   say-NONSPEC.SUBJ-INDIC SUBORD=FUT   race-NONSPEC.SUBJ
      'then people said that people would have a race'

2.2. Ergative vs. accusative patterns

The distinction between intransitive and transitive clauses becomes more important in languages with ergative case systems, in which transitive subjects and intransitive subjects occur in different cases, transitive subjects occurring in the ergative case, intransitive subjects in the same case as objects, the absolutive case, as illustrated in (85) from Kewa (Franklin 1971), an East New Guinea Highlands language.

(85)   a.   áá   píra-a
            man.ABS   sit-PAST.3SG
            'the man sat down'

        b.   áá-mé   étaa   ná-a
            man-ERG   food.ABS   eat-PAST.3SG
            'the man ate the food'

The absolutive case, used for the subject in (85a) and for the object in (85b), is unmarked, while the ergative case, used for the subject in (85b), is represented by the suffix *-mé.*

A crosslinguistically common property of the case system of Kewa is that the ergative case is overtly marked, while the absolutive case is a zero case. But there are also languages with ergative case marking in which both ergative and absolutive are overtly marked. For example, in Roviana (Corston 1996), an Austronesian language spoken in the Solomons, there are overt prepositional markers for both ergative and absolutive, as illustrated in (86).

(86)   a.   taloa   se   Zima
            leave   ABS   Zima
            'Zima left'

        b.   seke-i-a   e   Zima   se   Maepeza
            hit-TRANS-3SG.OBJ   ERG   Zima   ABS   Maepeza
            'Zima hit Maepeza'

A more unusual ergative case-marking pattern is found in Nias (Brown 2001), an Austronesian language spoken on an island off Sumatra in Indonesia, in that the ergative case is null and the absolutive case is non-null, realized by a mutation at the beginning of the noun. This is illustrated in (87).

(87)   a.   mörö   n-asu
            sleep   ABS-dog
            'the dog is sleeping'

        b.   i-'inu   n-idanö   asu
            3SG.ERG-drink   ABS-water   dog.ERG
            'the dog is drinking the water'

In addition, (in realis mood) verbs bear prefixes representing the ergative argument, the absolutive arguments not being represented on the verb, as can be seen in these examples.

Because it is not obvious that the notions of subject and object apply to ergative case systems, many linguists compare ergative and accusative systems (ones based on the more familiar subject-object distinction) in terms of three notions A, P, and S, where the S is the single argument of an intransitive verb, the A is the more agent-like argument in a transitive clause, and the P is the more patient-like argument, as indicated for the examples in (88). (The P is often called 'O' instead. By using P we foreground the typical semantic affiliation of this grammatical function with patients in the same way that A shows its typical semantic affiliation with agents.)

(88)   a.   *Pat* saw *the cat.*
             A   P

        b.   *The dog* barked.
             S

Note that the A need not be an agent, nor need the P be a patient, as in (88a), in which Pat is an experiencer, and not an agent in the narrow sense of something volitionally causing an event, and *the cat* is not really a patient in the narrow sense of something that is affected by the event, but rather what has been called a stimulus. But languages often treat experiencers in the same way as agents and treat the stimulus of perception verbs in the way as patients, justifying A and P as categories.

The difference between accusative languages and ergative languages can be described in terms of how they group A, P, and S. In accusative languages, S's and A's are treated one way, which we call subjects, while P's are treated distinctly, which we call objects. In ergative languages, S's and P's are treated the same, as absolutives, and A's are treated distinctly, as ergatives. These two possibilities are represented in (89).

(89)   a. accusative pattern   b. ergative pattern
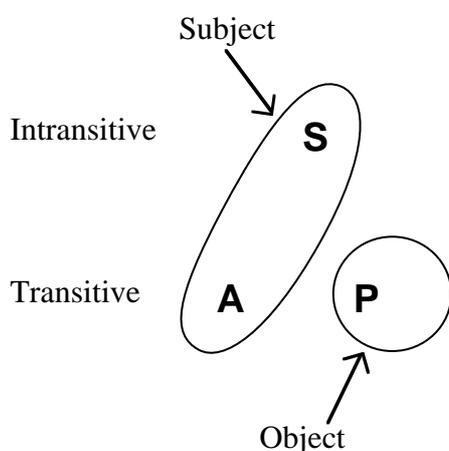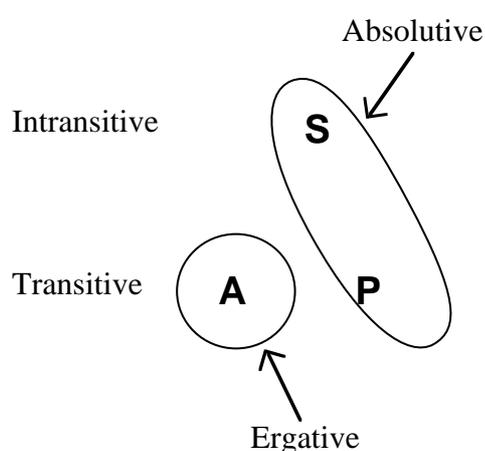
Research has shown that most languages which exhibit ergativity in one part of their system, exhibit a more familiar accusative pattern somewhere else in their system. The examples in (85) above show how Kewa exhibits an ergative case-marking system. However, the pronominal affix system on verbs follows an accusative pattern in that the verb inflects for the subject (i.e. S + A). In both examples in (90), the verb inflects for first person singular; in (90a), this is agreement with the S, while in (90b), it is agreement with the A.

(90)   a.   ní   píra-wa
            1SG.ABS   sit-1SG.PAST
            'I sat down'

       b.   né-mé   irikai   tá-wa
            1SG-ERG   dog.ABS   hit-1SG.PAST
            'I hit the dog'

See the chapters on the Major Functions of the Noun Phrase (I.3, Andrews), Information Packaging in the Clause (I.7, Foley) and Passive (I.6, Keenan and Dryer) for further discussion related to ergativity.

2.3. Ditransitive clauses

Some transitive clauses contain two objects, or at least two nonsubject arguments, as in the English sentences in (91).

(91) a. Nancy gave *Jeff* <u>some flowers</u>.
                         R   T

    b. Bob told *Sally* <u>a story</u>.
                      R   T

The noun phrases *Jeff* and *Sally* in (91) are often called indirect objects, the noun phrases *some flowers* and *a story* direct objects. However, because these labels carry grammatical implications that may not be appropriate for all languages, it is convenient to have more neutral labels for them. By analogy to the notation of A, P, and S, we can use the label 'R' for the recipient-like argument in ditransitive clauses and 'T' for the theme argument (something which undergoes a change in location or to which a location is attributed), as indicated in (91). Semantically, we can say that the R receives the T, either literally, as in (91a) (where Jeff receives the flowers), or metaphorically, as in (91b) (where Sally metaphorically receives the story).

Languages employ a number of different ways of representing the R and the T in ditransitive clauses. English, in fact, has two common constructions, one in which neither the R nor the T is marked with a preposition, and in which the R and T immediately follow the verb, in that order, as in both sentences in (91). In the second construction, illustrated in (92), the T immediately follows the verb and the R occurs later, marked by the preposition *to*.

(92) a. Nancy gave *some flowers* to *Jeff*.
                            T   R

    b. Bob told *a story* to *Sally*.
                   T   R

Many other languages employ constructions which are similar to one or the other of these two constructions in English, though it is less common to have both constructions, the way English does. For example, Igbo (Green and Igwe 1963), a Niger-Congo language of Nigeria, normally uses a construction analogous to the English construction in (91), illustrated in (93).

(93) o   nyèrè   ˋdha   àkhwa
      3SG   gave   Adha   egg
      'he gave Adha some eggs'

In contrast, Ma'anyan (Gudai 1988) normally uses a construction analogous to the English construction in (92), illustrated here in (94).

(94) aku   ng-amiq   duwit   ma   ambah-ku
      1SG   TRANS-give   money   to   father-1SG
      'I give some money to my father'

These two constructions are particularly common among languages without case affixes and among languages in which the object normally follows the verb.

In languages with case marking on at least one of the two arguments in transitive clauses, we find a number of different patterns of case marking for ditransitive clauses. Two of these patterns are reminiscent of the two patterns found in English. Probably the most common pattern is for the T to be in the accusative case (which will also be used for the P in monotransitive clauses) and for the R to appear in a separate case, which may be a dative case shared with benefactive noun phrases, or may be some kind of locative case marking used for goal locatives. This is illustrated in

(95) for Latin; (95a) shows an intransitive clause, (95b) a monotransitive clause, and (95c) a ditransitive clause.

(95) a.   puell-a   vocat.
            girl-NOM   call.PRES.3SG
            'the girl is calling'

      b.   puell-a   puer-um vīdit
            girl-NOM boy-ACC see.PERF.3SG
            'the girl saw the boy'

      c.   puell-a   libr-um   puer-o   dēdit
            girl-NOM book-ACC boy-DAT give.PERF.3SG
            'the girl gave the book to the boy'

The notions of 'direct object' and 'indirect object' are useful for characterizing languages like Latin. The category of direct object involves P and T, while indirect objects correspond to R's.

Not all languages operate in terms of direct and indirect objects; in other words, not all languages group P's and T's together and treat R's differently. A distinct pattern is found in Kunama (Thompson 1983), a Nilo-Saharan language spoken in Ethiopia, in which the R occurs with the same case marking as the P, the T occurring with distinct case marking; the examples in (96) illustrate an object suffix *-si* marking a P in (96a) and an R in (96b), while the T in (96b) is unmarked.

(96) a.   ka   ita-si   intike
            man   house-OBJ   saw
            'a man saw a house'

      b.   dark-oa-m   ikka-si   bia   išoke
            woman-that-SUBJ   son-OBJ   water   gave
            'the woman gave water to her son'

Yoruba, a Niger-Congo language spoken in Nigeria, employs a similar pattern of case marking, though in Yoruba it is the P and the R which are unmarked, while a preposition *ni* marks the T, as illustrated in (97).

(97) a.   Mo ri   baba   e   l'ana.
            I   saw   father your   yesterday
            'I saw your father yesterday'

      b.   Ajaki ko   Ayo ni   Yoruba.
            Ajaki taught Ayo PREP Yoruba
            'Ajaki taught Ayo Yoruba'

      c.   Mo ya   a   ni   owo.
            I   lend him PREP money
            'I lent him some money'

Languages like Kunama and Yoruba can be described in terms of a distinction between primary objects (P + R) and secondary objects (T). Thus, we can say that the object case in Kunama marks primary objects and that primary objects in Yoruba are unmarked, while secondary objects are marked with the preposition *ni*.

The difference between the pattern illustrated by Latin and the pattern illustrated by Kunama and Yoruba can be summarized in the diagrams in (98), similar to those in (89) to distinguish an accusative pattern from an ergative pattern.

(98) a. direct vs. indirect object   b. primary vs. secondary object
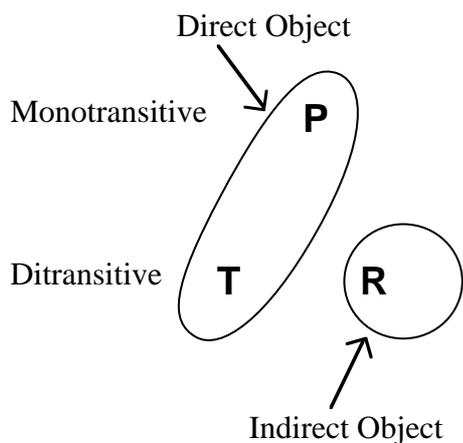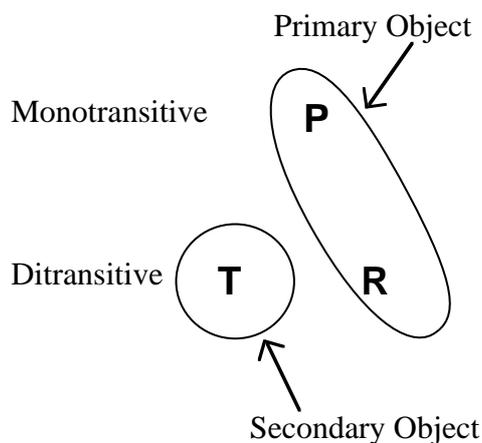
There is, in fact, a third way in which languages can group the two types of objects, namely treating them all the same way. For example, in Mising (Prasad 1991), a Tibeto-Burman language spoken in India, there is an accusative case which is used for the P in monotransitive clauses, as in (99a), and for both the R and the T in ditransitive clauses, as in (99b).

(99) a. bï   kedi-ëm   dópɔ-duŋ
          3SG   mango-ACC   eat-PRES
                      P
          'he eats mango'

      b. nɔ-kke   awë-dë   bulu-m   kitab-dë-m   bi-duŋ
          2SG-GEN   son-ART   3PL-ACC   book-ART-ACC   give-PRES
                                      R   T
          'your son is giving them a book'

These three possible treatments of ditransitive clauses (the two in (98) plus the possibility illustrated in (99) for Mising) interact with the contrast of accusative and ergative systems to define six possible systems. The three types just discussed illustrate the three possible types in an accusative system (where PO stands for primary object and SO stands for secondary object) .

(100) Accusative Languages:

a.   b.   c.
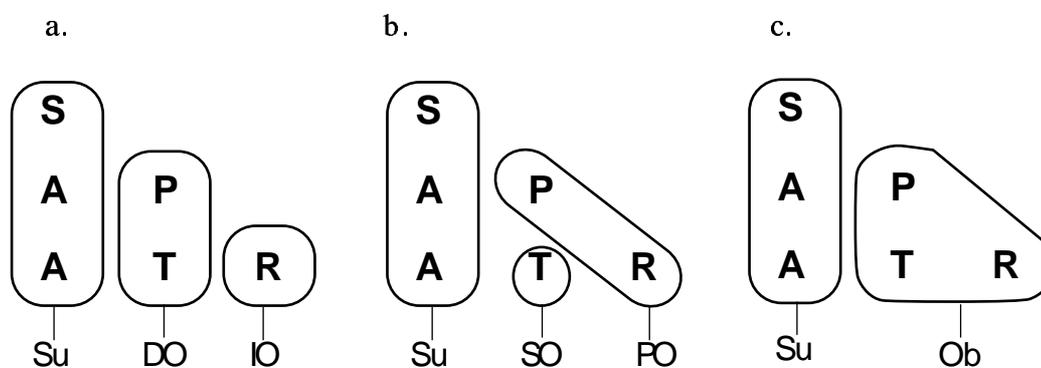
Since the languages used to illustrate the three treatments of objects (Latin, Kunama, Yoruba, and Mising) are all accusative, they also illustrate each of the three patterns in

(100), namely (100a) for Latin, (100b) for Kunama and Yoruba, and (100c) for Mising.

There are three analogous possible types of ergative languages: absolutives involve the combination of S and P, but there are three possible ways, analogous to the three types in (100), in which an absolutive category in a language can treat the T and the R. These are given in (101).

(101) Ergative Languages:
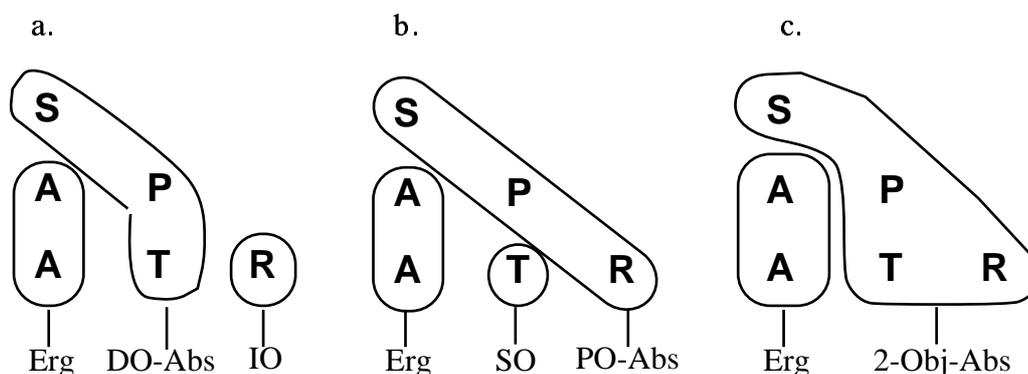
The three patterns shown in (101) involve three different types of absolutives: direct object absolutives, which group S's with direct objects (P & T), as in (101a); primary object absolutives, which group S's with primary objects (P & R), as in (101b); and two-object absolutives, which group S's with monotransitive objects (P's) and both objects in ditransitive clauses (both T and R), as in (101c).

The case system of Basque (Saltarelli 1988), a language isolate spoken in northern Spain and southern France, illustrates the direct object absolutive pattern in (101a), as illustrated in (102).

(102) a. katu-a   etza-n-da   d-a-go
          cat-ABS   lie.down-PERF-ADV   3-PRES-be
          'The cat is lying down.'

      b. ama-k   gona   gorri-a   eros-i   d-u-Ø
          mother-ERG   skirt red-ABS   buy-PERF   3-AUX.PRES-3SG
          'Mother has bought a red skirt'

      c. ni-k   aita-ri   diru-a   eska-tu   d-Ø-io-t
          1SG-ERG   father-DAT   money-ABS   ask-PERF   3-AUX-3SG-1SG
          'I have asked father for money.'

The absolutive case is used in Basque for DO-absolutives, i.e. for S's, as in (102a), for P's, as in (102b), and for T's as in (102c); the ergative case is used for A's, as in (102b) and (102c); and the dative case is used for R's, as in (102c).

The case system of Québec Inuktitut (Dorais 1978), an Eskimo-Aleut language spoken in Canada, is an instance of the primary object absolutive pattern given in (101b) above.

(103) a. Jaani-ø   tikilir-tuq.
          Jaani-ABS   arrive-PART.3SG
          'Jaani arrives'

b. Jaani-up   illu-ø   taku-vaa.
   Jaani-ERG   house-ABS   see-INDIC.3SG.3SG
   'Jaani saw the house'

c. anguti-up   Jaani-ø   aitu-paa   illu-mik.
   man-ERG   Jaani-ABS   give-INDIC.3SG.3SG   house-SECONDARY
   'A man gave Jaani a house'

Inuktitut differs from Basque in that the absolutive case is used in ditransitive clauses for the R rather than the T, so that we can say that it is primary objects that occur in the absolutive case in Inuktitut rather than direct objects, the pattern we saw in Basque. And whereas it is the R in Basque that occurs in a distinct case (the dative case), in Inuktitut, it is the T that occurs in a distinct case, here glossed 'secondary' (for 'secondary object').

Ngiyambaa (Donaldson 1980), a Pama-Nyungan language spoken in southeastern Australia, is an example of a language with a two-object absolutive case marking system of the sort shown in (101c), with an ergative case for A's and an absolutive case that is used, not only for S's and P's, but for *both* objects in ditransitive clauses. This is illustrated by the examples in (104).

(104) a. dhibi   bara-nha   balima-ga
         bird.ABS   fly-PRES   sky-LOC
         'birds are flying in the sky'

      b. miri-gu=na   bura:y   gadhiy-i
         dog-ERG=3.ABS   child.ABS   bite-PAST
         'the dog bit the child'

      c. guya=ndu   bura:y   ŋu-nhi
         fish.ABS=2.NOM   child.ABS   give-PAST
         'you gave a child a fish'

The first words in the examples in (104b) and (104c) bear pronominal enclitics that are irrelevant here; for example =ndu in (104c) indicates that the subject of the clause is second person. What is crucial here is that the absolutive case in Ngiyambaa follows the two-object absolutive pattern in (101c): the absolutive case is used for S's, as in (104a), for P's, as in (104b), and for both T's and R's in ditransitive clauses, as in (104c).

2.4. Subtypes of intransitive clauses

The most fundamental division among intransitive clauses is the distinction between intransitive clauses with verbal predicates and clauses with nonverbal predicates, which are generally intransitive. We have dealt with clauses of the latter sort in section 1 above. However, in some languages, there are important further distinctions among intransitive clauses with verbal predicates.

2.4.1. Stative vs. nonstative clauses

Perhaps the most common distinction of this sort is a distinction between stative and nonstative verbs, the latter going by various labels such as eventive, process, active, or activity verbs. This distinction is a common one in languages in which there is no distinct adjective word class, but in which there is a subclass of verbs whose meaning is typically similar to that of adjectives in languages in which there is a distinct adjective word class.

For example, in Muna (Van Den Berg 1989), an Austronesian language spoken in Sulawesi in Indonesia, words corresponding to adjectives in other languages are clearly verbal. They take the same inflectional morphology as verbs, as illustrated in (105) and (106).

(105) a.   no-kala   b.   no-ghae
             3SG.REALIS-go   3SG.REALIS-cry
             'he goes'   'he cries'

(106) a.   no-ghosa   b.   no-kesa
             3SG.REALIS-strong   3SG.REALIS-beautiful
             'he is strong'   'it is beautiful'

The examples in (105) illustrate verbs denoting events with a third person singular realis prefix *no-*, and the examples in (106) show words meaning 'strong' and 'beautiful' inflecting the same way when they occur as predicates.

The example in (107) shows that when a verb modifies a noun in Muna, it must bear participial inflection (PTCPL), consisting of a prefix *mo-* and a suffix *-no*.

(107)   anahi   mo-ghae-no
               child   PTCPL-cry-PTCPL
               'a child that cries'

The example in (108) shows that when words with adjectival meaning modify nouns they also take the same participial inflection.

(108)   kalambe   mo-kesa-no
               girl   PTCPL-beautiful-PTCPL
               'a beautiful child'

These common properties illustrate how words with adjectival meaning in Muna are grammatically verbs.

On the other hand, there are a number of properties that distinguish a subclass of stative verbs in Muna whose meaning corresponds to that of adjectives in languages like English in which a distinct adjective class exists. For example, these stative verbs undergo a morphological process that involves an intensifying prefix *mba-* and reduplication of the verb stem, as in (109).

(109)   no-mba-ghosa-ghosa
               3SG.REALIS-rather-strong-strong
               'he is rather strong'

But the same process is not available for nonstative verbs, as illustrated by the ungrammaticality of (110).

(110)   *no-mba-kala-kala
               3SG.REALIS-rather-go-go

The contrast in (109) and (110) is arguably semantic, since words indicating intensity or degree are often restricted to words denoting states, where the meaning involves a more extreme instance of the state in question, and such a meaning is not directly applicable to words denoting events with meanings like 'go'. On the other hand, there is a second morphological process in Muna that is restricted to stative verbs for which a semantic explanation is less clear. This involves a causative prefix *feka-* illustrated in (111).

(111)   no-feka-ghosa-e
          3SG.REALIS-CAUS-strong-it
          'he makes it strong'

Unlike morphemes indicating intensity or degree, causative morphemes are common in other languages with verbs denoting events. However, the prefix *feka-* in Muna does not occur with nonstative verbs, as illustrated by the ungrammaticality of (112).

(112)   *no-feka-kala-e
          3SG.REALIS-CAUS-go-it
          'he makes it go'

There is thus a distinct subclass of stative verbs in Muna and hence a distinct subclass of intransitive clauses.

2.4.2. Split intransitivity

The distinction between nonverbal and verbal intransitive clauses or between stative and nonstative clauses both involve a split among intransitive clauses, but the terms 'split intransitivity' and 'split-S' are commonly applied to splits where intransitive clauses divide into two types depending on whether the single argument (the S) exhibits grammatical properties similar to those of the A in transitive clauses or to those of the P. For example, in Bukiyip (Conrad and Wogiga 1991), a Torricelli language spoken in Papua New Guinea, there are some intransitive verbs whose S is coded on the verb in the same way as the A in a transitive clause and other intransitive verbs whose S is coded on the verb like the P in a transitive clause. The examples in (113) illustrate coding on the verb for transitive verbs in Bukiyip.

(113) a.   n-a-la-tú
            3SG.MASC-REALIS-build-NC$_{11}$.SG
            'he built it (a house)'

       b.   okok   kw-a-túl-únú
            she   3SG.FEM-REALIS-see-3SG.MASC
            'she saw him'

In both examples in (113), the verb bears a prefix indicating the person, number, and noun class of the A and a suffix indicating the same for the P. The subjects of both examples and the object of (113b) are human and vary for gender. The P in (113a) is inanimate and the suffix on the verb indicates that the P belongs to noun class 11. A third person singular masculine A is represented by a prefix *n-*, as in (113a), while a third person singular masculine P is represented by a suffix *-(ú)nú*, as in (113b). For the majority of intransitive verbs in Bukiyip, the S will be represented on the verb by one of the prefixes used for A's in transitive clauses, as in (114), where we find the same prefix *n-* that occurs in (113a).

(114)   énan   n-a-leh
   he   3SG.MASC-REALIS-cry
          'he cried'

However, for a minority of intransitive verbs, their single argument is represented by the same set of suffixes that represent P's in transitive clauses. In (115), for example, we find the single argument represented by the suffix *-(ú)nú* that represented the P in (113b).

(115)   énan   élgei-nú
          he   afraid-3SG.MASC
          'he is afraid'

The verbs in Bukiyip that behave like *élgei* 'be afraid' are all ones whose single argument is not agentive and whose semantic relation to the verb is in some respects more similar to that of a P in a transitive clause. For this reason, languages like Bukiyip are sometimes described as operating in terms of agent and patient rather than subject and object.

One way to describe split intransitive languages like Bukiyip is in terms of a diagram like that in (116), which contrasts with the accusative and ergative patterns portrayed above in (89).

(116) split intransitive (split-S) pattern
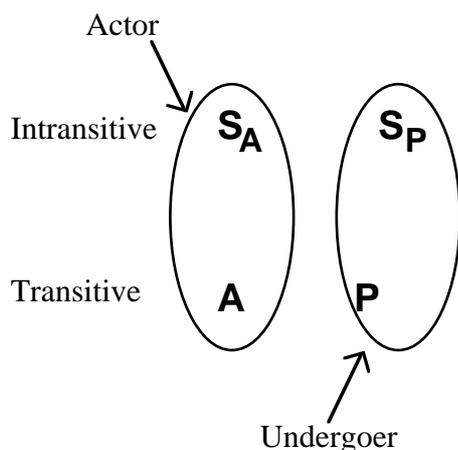
The diagram in (116) splits S into two subtypes, S_A and S_P, where S_A is those S's that behave like A's and S_P is those S's that behave like P's. The term 'actor' is sometimes applied to the union of S_A and A and the term 'undergoer' to the union of S_P and P.

Split intransitive systems most often manifest themselves in the system of pronominal marking on verbs, as in Bukiyip. In some languages, however, it is the system of case marking on noun phrases that operates in a split intransitive fashion. An example of such a language is Hunzib (Van Den Berg 1995), a Dagestanian language spoken in the Caucasus region in Russia. The example in (117a) illustrates a transitive clause, with overt case marking on the A and zero marking on the P; the example in (117b) illustrates zero marking on an S; the example in (117c) illustrates an S with the same actor marking that occurs on the A in (117a).

(117) a.   iyu-l   hɑrɑ   b-oho-r
            mother-ACTOR   cow   NC4-feed-PRET
            'mother fed the cow'

       b.   ože   uť-ur
            boy   sleep-PRET
            'the boy slept'

       c.   hɑrɑ-l   heλe-r
            cow-ACTOR   moo-PRET
            'the cow mooed'

Languages differ as to the basis of the split among S's. In Hunzib, for example, there are only ten intransitive verbs that take arguments with actor case-marking, while

all other intransitive verbs take arguments with undergoer case. These ten verbs are all verbs associated with bodily actions or noises. In most languages, there seems to be some semantic principle related to volitionality or stativity underlying the split, though ultimately the distinction seems to be lexical in that it is not entirely predictable whether the S of a particular intransitive verb will be an S$_A$ or an S$_P$. While the terms 'actor' and 'undergoer' are sometimes used in a purely semantic sense distinct from the grammatical patterns found in particular languages, the terms are also sometimes used as labels for categories that occur in particular split intransitive languages. Using the terms in this way, we can say that languages differ in the apparent semantic principle underlying the split. In many languages, the split is related to volitionality, volitional arguments appearing grammatically as actors, nonvolitional arguments as undergoers. This is the case, for example, in Choctaw (W. Davies 1986), a Muskogean language spoken in the United States. The examples in (118) illustrate the pronominal marking in transitive clauses in Choctaw.

(118) a.   chi-pisa-li-tok
            2SG.UNDERGOER-see-1SG.ACTOR-PAST
            'I saw you'

       b.   is-sa-sso-tok
            2SG.ACTOR-1SG.UNDERGOER-hit-PAST
            'you hit me'

The examples in (118) illustrate two different affixes for first person singular arguments, on a suffix, the other a prefix: the example in (118a) illustrates the first person singular actor suffix -*li*, while the example in (118b) illustrates the first person singular undergoer prefix *sa*-. Intransitive verbs differ as to which of these two affixes occur when their argument is first person singular. The example in (119a) shows a first person singular intransitive actor, represented by the suffix -*li*, while the example in (119b) shows a first person singular intransitive undergoer, represented by the prefix *sa*-.

(119) a.   bali:li-li-tok   b.   sa-cha:ha
            run-1SG.ACTOR-PAST   1SG.UNDERGOER-tall
            'I ran'   'I am tall'

The two verbs in (119) differ in two ways: the verb meaning 'run' in (119a) denotes an event and its argument is volitional, while the verb meaning 'tall' in (119b) denotes a state and its argument is nonvolitional. It is common in languages with split intransitive system for volitional arguments of event verbs to be actors and for nonvolitional arguments of stative verbs to be undergoers. But languages differ in their treatment of nonvolitional arguments of event verbs. Perhaps the more common pattern is that found in Choctaw, in which such verbs take undergoers, showing that volitionality is the primary semantic factor, as shown in (120), where we find the undergoer prefix *sa*- rather than the actor suffix -*li*.

(120) a.   sa-ttola-tok   b.   sa-habishko
            1SG.UNDERGOER-fall-PAST   1SG.UNDERGOER-sneeze
            'I fell'   'I sneezed'

Different semantic factors are apparently relevant to Apuriná (Facundes 2000), an Arawakan language spoken in Brazil. Actors and undergoers in Apuriná are distinguished by the position of pronominal prefixes on the verb: actors are represented by prefixes, while undergoers are represented by suffixes. Both of these are illustrated by the example with a transitive verb in (121).

(121) n-arika-ru
      1SG.ACTOR-set.on.fire-3SG.MASC.UNDERGOER
      'I set it on fire'

Intransitive verbs in Apurinã differ as to which of these two sets of affixes they occur with. In (122a), we see an actor prefix representing the volitional argument of an intransitive event verb, while in (122b), we see an undergoer suffix representing the nonvolitional argument of an intransitive stative verb.

(122) a. nu-muteka   b. hareka-no
         1SG.ACTOR-run   good-1SG.UNDERGOER
         'I run'   'I am good'

In Apurinã, the nonvolitional argument of an event verb is invariably an actor, even when nonvolitional, as in the two examples in (123).

(123) a. nh-iri   b. o-pö-p
         1SG.ACTOR-fall   3SG.FEM.ACTOR-die-IMPERF
         'I fell down'   'she died'

Furthermore, there are many stative verbs which take actors rather than undergoers, as in (124).

(124) a. nu-sãpaka   b. nhi-inhikaka
         1SG.ACTOR-tired   1SG.ACTOR-feel.hot
         'I am tired'   'I feel hot'

Further examination would be necessary to determine whether there is some semantic basis to the contrast between those stative verbs in Apurinã which take undergoers and those which take actors.

Other semantic factors are at play in other languages. In Taba (Bowden 1997), an Austronesian language spoken in eastern Indonesia, the choice of actor versus undergoer in intransitive clauses is partly sensitive to the animacy of the argument. In Taba, actors are represented on the verb by proclitics, while undergoers are generally not represented on the verb. A simple transitive clause is given in (125), illustrating SVO order for transitive clause, and illustrating a prefix on the verb for the actor, but no marking on the verb for the undergoer.

(125) Ahmad n-pun   kolay
       Ahmad   3SG.ACTOR-kill snake
       'Ahmad killed a snake'

In addition, independent pronouns, if present, precede the verb when they are actors, but follow when they are undergoers, like full noun phrases in these roles. This is illustrated for transitive clauses in (126): (126a) illustrates an independent pronoun *am* 'we, exclusive' functioning as a transitive actor preceding the verb, while (126b) illustrates an independent pronoun *i* 'third person singular' functioning as a transitive undergoer following the verb.

(126) a. am   a-tala   motor   la-we
         1PL.EXCL   1PL.EXCL-meet   boat   sea-ESSIVE
         'we (exclusive) met the boat by the sea'

       b. ni   mamasi   n-wet   i
         3SG.POSS   mother   3SG.ACTOR-hit   3SG
         'his mother hit him'

Analogous intransitive examples are given in (127): in (127a), the argument is an actor and is represented both by an independent pronoun preceding the verb and by a proclitic on the verb, while in (127b), the argument is an undergoer and is represented only by an independent pronoun following the verb.

(127) a. i   n-tagil   ndara   b. kawail   i
           3SG   3SG.ACTOR-walk   too.much   tired   3SG
           'he walks too much'   'he is tired'

In some cases in Taba, the choice of actor versus undergoer is sensitive to the animacy of the argument, as in (128).

(128) a. n-ha-mlongan   b. ubang   da   mlongan
           3SG.ACTOR-CAUS-long   fence   that   long
           'he is tall'   'that fence is long'

The verb *mlongan* 'long' in Taba is basically an undergoer intransitive verb, and this use is illustrated in (128b). However, there is a productive process in Taba whereby what is otherwise the causative prefix combines with an undergoer intransitive verb to yield an actor intransitive verb. This is illustrated in (128a), where we find a causative prefix on the verb, but also an actor prefix, illustrating how the argument is an actor in (128a) but an undergoer in (128b). Although both verbs in (128) basically mean 'be long', the one that takes an actor is generally used with humans while the one that takes an undergoer is generally used with nonhumans.

In some languages, issues of split intransitivity extend to clauses with nonverbal predicates. For example, in Kambera (Klamer 1998), another Austronesian language of eastern Indonesia, nominal and locative predicates are among the class of intransitive predicates that take undergoer clitics for their single argument: (129a) illustrates a transitive clause with a third person actor proclitic *na-* and a third person undergoer enclitic *-ya*; (129b) shows an intransitive clause with the single argument represented by the actor proclitic *na-*; (129c) and (129d) show intransitive clauses with nominal and locative predicates respectively, with their single arguments represented by the undergoer enclitic *-ya*.

(129) a. na-palu-ya   na   ahu
           3SG.ACTOR-hit-3SG.UNDERGOER   ART   dog
           'she hits the dog'

       b. na-kapunduh   weling   la   kanjaka
           3SG.ACTOR-jump   move.from   LOC   chair
           'he jumps from the chair'

       b. hurundandu-ya
           soldier-3SG.UNDERGOER
           'he is a soldier'

       e. la   wawa   kotak-ya
           LOC   down   village-3SG.UNDERGOER
           'he is below the village'

2.4.3. Zero-intransitive (or ambient) clauses

Intransitive clauses are usually characterized as involving a single argument while transitive clauses are characterized as involving two (or more) arguments. However, many languages have clauses which can be described as involving *zero* arguments. These clauses are ones that semantically do not involve any arguments, though

languages vary as to whether they are treated as lacking arguments in their syntax. This sort of clause normally involves environmental conditions, typically weather conditions. Examples of English clauses of this sort are given in (130).

(130) a. It is raining.
       b. It is cold today.
       c. It is hot in this room.

In English, clauses like these resemble intransitive clauses like *It is screaming* or *It is weak.* However, in clauses of the latter sort, the subject pronoun *it* is referring to something, most likely nonhuman, while in (130) the pronoun *it* is nonreferential. This is reflected by the fact that the *it* in *It is screaming* can be replaced by some other noun phrase, as in *I am screaming* or *Who is screaming?* But this is not possible in (130a) (**I am raining, *What is raining?*). The nonreferential *it* in clauses like those in (130) is often referred to as an expletive or dummy subject.

Because of the presence of the expletive subject in the English examples in (130), these clauses are grammatically like intransitive clauses, and though they may be described as being zero-intransitive semantically, they can be described as normal intransitives grammatically. But English is actually rather unusual crosslinguistically in using expletive subjects. This is fairly unusual outside of Europe, although an example of a non-European language that is like English in using a semantically nonreferential third person pronoun in zero-intransitive clauses is Buru (Grimes 1991), an Austronesian language spoken in Maluku in Indonesia, as illustrated in (131).

(131) da   deka
       3SG   rain
       'it's raining'

Most other languages employ one of four alternative strategies for expressing such meanings.

Some languages employ a strategy that is similar to English, except that instead of a semantically nonreferential independent pronoun as subject, they employ a semantically nonreferential third person singular form of a verb. As in English, these clauses look like normal intransitive clauses, except that such clauses cannot take an independent noun phrase as subject and the third person singular affix is nonreferential with these verbs but referential with normal intransitive verbs. For example, in Tukang Besi (Donohue 1996), an Austronesian language of Indonesia, 'it is raining' is expressed by a single word, as shown in (132).

(132) no-wande
       3.REALIS-rain
       'it is raining'

And just as in English, it is not possible to add any noun as subject, as shown in (133).

(133) *no-wande   na   wande / langi / lono / 'oloo
       3.REALIS-rain   NOM   rain / sky /   cloud / day
       'it's raining'

However, unlike English, it is not possible to have a third person singular independent pronoun meaning 'it' as subject, as shown in (134).

(134) *no-wande   na   ia
       3.REALIS-rain   NOM   it
       'it is raining'

But the form in (132) does look superficially like a normal intransitive clause expressed entirely by the verb, as in (135).

(135)   no-tinti
        3.REALIS-run
        'she is running'

A second strategy for expressing the meanings of clauses like those in (130) is by means of a referential subject. In Bukiyip, for example, clauses referring to raining involve a subject noun meaning 'rain', as illustrated in (136).

(136)   echah   h-a-lali
        rain   NC$_{13}$-REALIS-rain
        literally 'rain rains'

In these languages, such clauses are really intransitive (rather than zero-intransitive) since the subject is referential.

A third strategy is employed in languages in which there is no overt expression of any argument, in which there can be no separate pronoun or noun as subject and the verb does not inflect for any argument. An example is given in (137) from Tahitian (Tryon 1970), an Austronesian language spoken on the island of Tahiti in the Pacific.

(137)   'e   ūa
        fut   rain
        'it will rain'

A fourth strategy is to use a noun meaning 'rain' by itself without any accompanying word, as in Tawala (Ezard 1997), an Austronesian language spoken in Papua New Guinea, as in (138).

(138)   gadiwewe
        rain(NOUN)
        'There is rain'

This is really an instance of an existential clause of the sort illustrated above in (62) for Tolai, which consists simply of a noun phrase denoting that which exists.

Zero-intransitive clauses in Tolai (Mosel 1984) superficially look like English clauses in having a third person singular pronoun, as in (139).

(139)   i   ga   bata
        3SG   PAST   rain
        'it rained'

However, the pronominal word *i* in (139) is an agreement pronoun that is in the verb phrase and not in subject position, in contrast to the *it* in English *it is raining*: this agreement pronoun in Tolai co-occurs with a noun phrase in subject position, as in (140).

(140)   nina   ra   tutana   i   ga   mait
        that   DEF   man   3SG   PAST   sick
        'that man was sick'

In other words, the agreement pronoun is more analogous to an agreement affix, except that it is a separate word. Thus, this should probably be viewed as a subcase of the strategy illustrated above in (132) for Tukang Besi, in which there is a pronominal

marking on the verb, rather than like English, in which there is a marking in the position of syntactic subjects.

While perhaps the most common sort of zero-intransitive clause are ones involving environmental conditions, many languages also use them for expressions of time, as in the Kutenai and Awa Pit examples in (141a) and (141b) respectively.

(141) a.   k=wałkwayit-s,   ła   łaxax-i   łkam-nińtik
             SUBORD=be.evening-OBV   back arrive-INDIC   child-PLUR
             'when evening came, the children arrived back'

        b.   nash-miz-i
             be.afternoon-INCEP-NONLOCUT
             'it is getting late'

In both of these cases, a verb is used, but one which does not take any arguments semantically. The verb for 'be evening' in Kutenai in (141a) does take inflection for an obviative subject, a category of inflection that indicates that the subject of that verb is different from the subject of verbs in the surrounding discourse lacking obviative inflection, so that at some grammatical level we may want to say that this clause has a subject; however, this subject can only be realized phonologically by an affix on the verb, not by a separate noun phrase, as is possible with the nonreferential subject *it* in English *it is raining.*

2.5. Semi-transitive clauses

The distinction between intransitive and transitive clauses is in principle a straightforward one: intransitive clauses contain a single argument, while transitive clauses contain two or more. In many languages, however, there are some clauses that do not fall easily into one or the other of these two categories, where they behave in some ways like intransitive clauses, but in other ways like transitive clauses. Most often the verbs in such clauses have two arguments semantically, but neither is an agent in the narrow sense of someone or something that volitionally causes the event denoted by the verb.

One sort of semi-transitive clause is found in Koyraboro Senni (Heath 1999), where objects of transitive verbs normally immediately precede the verb, without any case marking, as in (142). (The second word in (142), *na* 'transitive', occurs in a slot otherwise filled by tense-aspect-mood particles that immediately follow the subject in Koyraboro Senni.)

(142) a   na   ham   ŋaa
       3SG TRANS meat eat
       'he ate meat'

Nonarguments, in contrast, follow the verb and are typically marked with a postposition, as in (143).

(143) a   koy koyr-aa   ra
       3SG go   town-DEF.SG LOC
       'he went to the city'

There are a minority of verbs, however, which involve two arguments semantically, but where the nonsubject argument follows the verb, without being marked with any preposition or postposition, as in (144) (from Prost 1956).

(144) a.   a   ga   ba   agey
             3SG   INCOMPL   like   1SG
             'she likes me'

      b.   ay   di   né   wand-o
             1SG   see   2SG   wife-DEF
             'I saw your wife'

      c.   ay   ga   humbur   hans-o
             1SG   INCOMPL   fear   dog-DEF
             'I am afraid of the dog'

      d.   i   ga   hima   kyer-ey
             3PL   INCOMPL   resemble   each.other-PLUR
             'they resemble each other'

On the one hand, these clauses are not like normal transitive clauses in that there is no object noun phrase preceding the verb. On the other hand, they are not like typical intransitive clauses: not only do they have two arguments semantically, but the nonsubject argument, though following the verb, is not marked with a preposition. These clauses are neither straightforwardly transitive nor straightforwardly intransitive. A useful label for clauses of this sort is semi-transitive. In a sense they behave more transitively than normal intransitive clauses and less transitively than normal transitive clauses. It is worth noting that none of the subjects in (144) are agents in the narrow sense; the subjects in (144a), (144b), and (144c) are all experiencers of some sort and the subject in (144d) is a patient/theme. The same is true of other verbs in Koyraboro Senni that behave in this way and is a typical feature of semi-transitive clauses in other languages.

      Djaru (Tsunoda 1981), a Pama-Nyungan language of northwestern Australia, exhibits a number of distinct types of semi-transitive clauses. The normal pattern for intransitive and transitive clauses is exhibited in (145), with a zero absolutive case for S's and P's and an overt ergative case for A's.

(145) a.   mawun   jan-an
             man.ABS   go-PRES
             'the man goes'

      b.   mawun-du   ɲaŋ-an   ḓaḓi
             man-ERG   see-PRES   kangaroo.ABS
             'a man sees a kangaroo'

However, there is a class of verbs which take two arguments semantically, whose A occurs in the ergative case, but whose P occurs in the dative case, as in (146).

(146) mawun-da   ŋa-la   ḓaḓi-wu   muwu wuŋ-an
         man-ERG   CLITIC.HOST-3SG.DAT   kangaroo-DAT   search-PRES
         'a man is looking for a kangaroo'

The case marking in (146) is anomalous in that the ergative case is otherwise not possible in Djaru unless there is an absolutive in the same clause.

      A second type of semi-transitive clause in Djaru involves a verb which takes two arguments semantically but which takes one argument grammatically in the absolutive case, the other in the dative or locative cases, as in (147).

(147) jambagina   ŋa-ɲanda   juwa maɲ-an   guɲar-a
      child.ABS   CLITIC.HOST-3SG.LOC   be.afraid-PRES   dog-LOC
      'a child is afraid of a dog'

Clauses like (147) are grammatically identical to intransitive clauses containing a locative nominal in Djaru, differing only in that the locative-marked nominal is semantically an argument of the verb.

The third type of semi-transitive clause in Djaru is anomalous in that it contains two arguments that are both marked absolutive, as in (148).

(148)   mawun   ɖaru   maɲ-an
      man.ABS   Djaru.ABS   talk-PRES
      'a man talks Djaru'

The absolutive form of *mawun* 'man' in (148) suggests that it is being treated as an S and that the clause is intransitive. The absolutive form of *ɖaru* 'Djaru' suggests that it is being treated as a P and that the clause is transitive. Again the label 'semi-transitive' is a useful label for such clauses.

Note that with all three types of semi-transitive clauses in Djaru, the meaning of the verb is one that deviates from ones with an agent argument and a patient/theme argument. In the case of the verb meaning 'afraid', one argument is an experiencer and the other argument is a stimulus. In the case of the verbs meaning 'look for' and 'talk', one argument is agentive, but the other argument is semantically unlike patient/themes in not being affected by the action of the verb.

The third type of semi-transitive clause in Djaru, as in (148), with two absolutive nominals, might be explained in terms of the fact that the absolutive case is a zero case, that *mawun* 'man' is absolutive because it is an S but that *ɖaru* 'Djaru' is zero-marked for some reason other than being grammatically absolutive. But this explanation will not work for certain clauses in Nias. As illustrated above in (87), Nias employs ergative case marking, with an overtly marked absolutive case. But there are a few verbs in Nias that occur with two arguments which both occur in the absolutive case, as in (149), analogous to the Djaru example in (148).

(149) a.   ata'u   n-akhi-gu   n-asu
         be.afraid   ABS-younger.sibling-1SG.POSS   ABS-dog
         'my younger brother is afraid of the dog'

     b.   omasi   n-asu   n-akhi-gu
         like   ABS-dog   ABS-younger.sibling-1SG.POSS
         'the dog likes my younger brother'

Again, these clauses are quite anomalous in containing two noun phrases in absolutive case, something that is not otherwise possible in the language. They are less transitive than normal transitive clauses in that there is no noun phrase that is case-marked ergative and the verb does not bear a prefix coding either argument, in contrast to normal transitive clauses in Nias, in which the verb bears a prefix for the ergative argument. On the other hand, they are more transitive than normal intransitive clauses in Nias in that they contain two semantic arguments, neither of which is marked with a preposition, and both of which are marked in the absolutive case, a case otherwise used for arguments of the verb.

Another candidate for semi-transitive status in many languages is clauses containing certain verbs of motion, with which some locative expression is obligatory, as in the examples in (150) from Babungo, which are unacceptable without a locative expression, typically a prepositional phrase.

(150) a.   Ndùlá gà   táa yìwìŋ
            Ndula go.PERF to   market
            'Ndula has gone to the market'

       b.   fàshīa kò'   fúu t̃ĩ
            squirrel climb.PERF on   tree
            'a squirrel climbed on a tree'

But while such clauses may be justifiably classified as semi-transitive, they rarely exhibit any grammatical differences from intransitive clauses with optional locative expressions apart from the obligatory status of the locative expression, and hence it is in general not necessary to posit a distinct class of semi-transitive clauses, simply on the basis of clauses like these.

       The examples above illustrate semi-transitive clauses where this type of clause is determined by specific lexical items. One also finds instances of what one could call semi-transitive clauses in grammatically determined contexts. For example, Yukulta (Keen 1983), a Tangkic language spoken in northern Australia, generally exhibits ergative case marking, as in (151).

(151)   ṭaŋka-ya-kari   ŋawu   palaṭa
         man-ERG-PRES.TRANS   dog.ABS   hit
         'the man is hitting the dog'

(The final morpheme -*kari* in the first word in (151) is a tense clitic that attaches to the first word in the sentence; this form is used in transitive clauses.) Compare (151) with the corresponding negative sentence in (152), in which the A is in the absolutive case and the P is in the dative case.

(152)   walira-ŋka   ṭaŋka-ṛa   ŋawu-ṇṭa palaṭa
         neg-PRES.INTRANS   man-ABS   dog-DAT   hit
         'the man is not hitting the dog'

This type of semi-transitive clause is parallel to that illustrated above for Djaru in (147), except that here it is grammatically conditioned rather than lexically determined: negative clauses all follow the semi-transitive pattern.

       It should be said that semi-transitive clauses are probably not a well-defined crosslinguistic category, in contrast to intransitive clauses and transitive clauses. Rather, in designating these clauses as semi-transitive, nothing is intended beyond observing that they exhibit properties that fall in between those of normal intransitive and transitive clauses. It may well be that in some languages, there is a good analysis of semi-transitive clauses that accounts for their properties, but that the best analysis will vary from language to language. The label 'semi-transitive' indicates nothing more than the fact that the clauses so designated are problematic as far as the traditional distinction between intransitive and transitive clauses is concerned.

2.6. Clauses with derived verbs

       Our comments in this section will be very brief, since the topic of this section is dealt with in greater detail in other chapters in this anthology. We have restricted discussion of the various types of verbal clauses in this chapter to clauses involving *basic* verbs rather than ones involving some sort of derivation that might result in a clause of a different sort. For example, passive clauses can be thought of as derived in some sense, whether one thinks of it as deriving passive clauses from active clauses,

passive VP's from active VP's, or passive verbs from active verbs. Passive constructions are discussed in the chapter on Passives (I.6). Other sorts of constructions involving derived verbs include antipassive constructions, noun incorporation, causative constructions, and applicative constructions. A number of these constructions are discussed at length in the chapter on Information Packaging in the Clause (I.7).

Suggestions for Further Reading

Two detailed books on nonverbal clauses are Hengeveld (1992) and Stassen (1997). There is an extensive literature on case and grammatical relations that is relevant to the topic of different verbal clause types. Among the basic sources are Blake (1990, 1994), Palmer (1994), and Chapter 6 of Van Valin and LaPolla (1997). A number of chapters in this anthology discuss issues related to this, including the chapters on the Major Functions of the Noun Phrase by Andrews and Information Packaging in the clause by Foley. There is also an extensive literature on ergativity, including Dixon (1994). On split intransitivity, see Merlan (1985) and Mithun (1991).

References

Asher, R. E., and T. C. Kumari. 1997. *Malayalam*. London: Routledge.

Austin, Peter. 1981. *A Grammar of Diyari, South Australia*. Cambridge: University Press.

Blake, Barry J. 1990. *Relational Grammar*. London: Routledge.

Blake, Barry J. 1994. *Case*. Cambridge: Cambridge University Press.

Borgman, Donald M. 1990. Sanuma. In Desmond C. Derbyshire and Geoffrey K. Pullum, eds., *Handbook of Amazonian Languages* 2, pp. 15-248. Berlin: Mouton de Gruyter.

Bowden, John. 1997. *Taba (Makian Dalam): Description of an Austronesian Language of Eastern Indonesia*. University of Melbourne Ph.D. Thesis.

Brown, Lea. 2001. *A Grammar of Nias Selatan*. University of Sydney Ph.D. Dissertation.

Chhangte, Lalnunthangi. 1989. The grammar of simple clauses in Mizo. In David Bradley, ed., *South-East Asian Syntax*, Pacific Linguistics, Series A, No. 77 (Papers in South-East Asian Linguistics, No. 11). Canberra: Australian National University.

Conrad, Robert J., and Kepas Wogiga. 1991. *An Outline of Bukiyip Grammar*. Pacific Linguistics, Series C, No. 113. Canberra: The Australian National University.

Corston, S. H. 1996. *Ergativity in Roviana, Solomon Islands*. Pacific Linguistics, Series B, No. 113.

Curnow, Timothy J. 1997. *A Grammar of Awa Pit (Cuaiquer): An Indigenous Language of South-western Colombia*. Australian National University Ph.D. Thesis.

Davies, William D. 1986. *Choctaw Verb Agreement and Universal Grammar.* Dordrecht: D. Reidel Pub. Co.

De Vries, Lourens. 1993. *Forms and Functions in Kombai, an Awyu Language of Irian Jaya.* Pacific Linguistics, Series B, No. 108.

Diessel, Holger. 1999. *Demonstratives: Form, Function and Grammaticalization.* Amsterdam: John Benjamins.

Dixon, Robert M. W. 1994. *Ergativity.* Cambridge: Cambridge University Press.

Donaldson, Tamsin. 1980. *Ngiyambaa: The Language of the Wangaaybuwan.* Cambridge: University Press.

Donohue, Mark. 1995. *The Tukang Besi Language of Southeast Sulawesi, Indonesia.* Australian National University Ph.D. Thesis.

Dorais, Louis J. 1978. *Lexique Analytique du Vocabulaire Inuit Moderne au Quebec-Labrador.* Québec: Presses de l'Universite Laval.

Ezard, Brian. 1997. *A Grammar of Tawala, An Austronesian Language of the Milne Bay Area, Papua New Guinea.* Pacific Linguistics, Series C, No. 137. Canberra: Australian National University.

Facundes, Sidney Da S. 2000. *The Language of the Apurinã People of Brazil (Maipure/Arawakan).* State University of New York at Buffalo Ph. D. Dissertation.

Fortescue, M. 1984. *West Greenlandic.* Croom Helm Descriptive Grammars. Dover, New Hampshire: Croom Helm.

Frachtenberg, Leo J. 1922. Coos. In Franz Boas, ed., *Handbook of American Indian Languages, Part II*, Smithsonian Institution Bureau of American Ethnology Bulletin 40, pp. 297-429. Washington: Government Printing Office.

Franklin, Karl James. 1971. *A Grammar of Kewa, New Guinea.* Pacific Linguistics, Series C, No. 16. Canberra: Australian National University.

Green, M. M., and G. E. Igwe. 1963. *A Descriptive Grammar of Igbo.* London: Oxford University Press.

Grimes, Charles E. 1991. *The Buru Language of Eastern Indonesia.* Australian National University Ph.D. Thesis.

Gudai, Darmansyah. 1988. *A Grammar of Maanyan, A Language of Central Kalimantan.* Australian National University Ph.D. Thesis.

Heath, Jeffrey. 1999. *A Grammar of Koyraboro (Koroboro) Senni.* Köln: Rüdiger Köppe Verlag.

Hengeveld, Kees. 1992. *Non-verbal Predication: Theory, Typology, Diachrony.* Berlin: Mouton de Gruyter.

Hoskison, J.T. 1983. *A Grammar and Dictionary of the Gude Language.* The Ohio State University, Ph.D. Dissertation.

Jauncey, Dorothy. 1997. *A Grammar of Tamambo, the Language of Western Malo*. Australian National University Ph.D. Thesis.

Keen, Sandra. 1983. Yukulta. In R.M. W. Dixon and Barry J. Blake, eds., *Handbook of Austrialian languages* 3. Amsterdam: John Benjamins B. V.

Klamer, Marian. 1998. *A Grammar of Kambera*. Berlin: Mouton de Gruyter.

Lee, Kee-Dong. 1975. *Kusaiean Reference Grammar*. Honolulu: The University Press of Hawaii.

Louwerse, J. 1988. *The Morphosyntax of Una in Relation to Discourse Structure*. Pacific Linguistics, Series B, No. 100. Canberra: The Australian National University.

Macauley, Monica. 1996. *A Grammar of Chalcatongo Mixtec*. University of California Publications in Linguistics 127. Berkeley: University of California Press.

Mazaudon, Martine. 1976. Typological sketch of Tamang. Handout used in presentation at UCLA, 1976.

McGregor, William. 1990. *A Functional Grammar of Gooniyandi*. Amsterdam: John Benjamins.

McLendon, Sally. 1975. *A Grammar of Eastern Pomo*. Berkeley: University of California Press.

Merlan, Francesca. 1982. *Mangarayi*. Lingua Descriptive Studies 4. Amsterdam: North-Holland.

Merlan, Francesca. 1983. *Ngalakan Grammar, Texts, and Vocabulary*. Pacific Linguistics, Series B, No. 89. Canberra: Australian National University.

Merlan, Francesca. 1985. Split intransitivity: functional oppositions in intransitive inflection. In Johanna Nichols and Anthony Woodbury, eds., *Grammar Inside and Outside the Clause*, pp. 324-362. Cambridge: Cambridge University Press.

Mithun, Marianne. 1991. Active/agentive case marking and its motivations. *Language* 67: 510-546.

Mosel, Ulrike. 1984. *Tolai Syntax and its Historical Development*. Pacific Linguistics, Series B, No. 92 Canberra: The Australian National University.

Nedjalkov, Igor. 1996. *Evenki*. London: Routledge.

Noonan, Michael. 1992. *A Grammar of Lango*. Berlin: Mouton de Gruyter.

Nordlinger, Rachel. 1998. *A Grammar of Wambaya, Northern Territory (Australia)*. Pacific Linguistics, Series C, No. 140. Canberra: Australian National University.

Oates, Lynette F. 1988. *The Muruwari Langauge*. Pacific Linguistics, Series C, No. 108 Canberra: The Australian National University.

Palmer, F. R. 1994. *Grammatical Roles and Relations*. Cambridge: Cambridge University Press.

Prasad, Bal Ram. 1991. *Mising Grammar*. Mysore, India: Central Institute of Indian Languages.

Prost, R. P. A. 1956. *La Langue Sonay et ses Dialectes*. Memoires de l'Institut Français d'Afrique Noire 47. Dakar.

Rangan, K. 1979. *Purki Grammar*. Manasagangotri, Mysore: Centeral Institute of Indian Languages.

Rennison, John R. 1997. *Koromfe*. London: Routledge.

Rice, Keren. 1989. *A Grammar of Slave*. Berlin: Mouton de Gruyter.

Rupp, James E. 1989. *Lealao Chinantec Syntax*. Studies in Chinantec Languages 2. Summer Institute of Linguistics and the University of Texas at Arlington.

Saltarelli, Mario. 1988. *Basque*. Croom Helm Descriptive Grammars London: Croom Helm.

Schaub, Willi. 1985. *Babungo*. Croom Helm Descriptive Grammars. Dover, New Hampshire: Croom Helm.

Seidenadel, Carl Wilhelm. 1909. *The First Grammar of the Language Spoken by the Bontoc Igorot with Vocabulary and Texts*. Chicago: Open Court Publishing Co.

Seiler, Walter. 1985. *Imonda, a Papuan Language*. Pacific Linguistics, Series B, No. 93. Canberra: The Australian National University.

Sridhar, S. N. 1989. *Kannada: Descriptive Grammar*. London: Routledge.

Stassen, Leon. 1997. *Intransitive Predication*. Oxford: Clarendon Press.

Sulkala, Helena, and Merja Karjalainen. 1992. *Finnish*. London: Routledge.

Thompson, E. D. 1983. Kunama: phonology and noun phrase. In M. L. Bender, ed., *Nilo-Saharan Language Studies*, pp. 280-322. East Lansing: African Studies Center, Michigan State University.

Tryon, Darrell T. 1970a. *Conversational Tahitian*. Berkeley: University of California Press.

Tsunoda, Tasaku. 1981. *The Djaru Language of Kimberley, Western Australia*. Pacific Linguistics, Series B, No. 78. Canberra: Australian National University.

Tucker, A. N. 1940/1967. *The Eastern Sudanic Languages, Volume I*. London: Dawsons of Pall Mall, for the International African Institute.

Van den Berg, Helma. 1995. *A Grammar of Hunzib*. Munich: Lincom Europa.

Van den Berg, René. 1989. *A Grammar of the Muna Language*. Dordrecht: Foris.

Van Enk, Gerrit J., and Lourens De Vries. 1997. *The Korowai of Irian Jaya: Their Language in its Cultural Context*. New York: Oxford University Press.

Van Valin, Robert D., and Randy J. LaPolla. 1997. *Syntax: Structure, Meaning, and Function*. Cambridge: Cambridge University Press.

Walsh, Michael. 1976. *The Murinypata Language*. Australian National University Ph.D. Thesis.

Weber, David John. 1989. *A Grammar of Huallaga (Huánaco) Quechua*. Univ. of California Publications in Linguistics 112 Berkeley: University of California Press.

Wolfart, H. Christoph, and Janet Carroll. 1981. *Meet Cree*. Second Edition. Edmonton: University of Alberta Press.

Wolff, John V. 1966. *Beginning Cebuano, Part 1*. New Haven: Yale University Press.