77. Verb

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such as negative, interrogative, tense, mood, and evidentiality, as well as agreement and the morphological categories of high relevance to the verb such as valence, voice and aspect. Verbs are more often morphologically complex than nouns, and in this article we will examine the general morphological properties of verbs and the way in which the lexical semantics of the verb interacts with morphological categories.

2. The lexical composition of verbs

Cross-linguistically valid delineation of the semantic domains of nouns and verbs is possible because a concept in one language is expressed as a verb in another language. As for the verb "to eat" (see Art. 72), we can say that the verb is a verb that corresponds to the concept of eating. In many languages, the verb "to eat" is expressed as a noun, such as "to have eaten" in English.

Most of what we conceive of as events are actions, and actions can be divided into sequences of events and actions can be divided into sequences of actions and events. In the following we will examine some of the ways in which the lexical semantics of verbs can differ cross-linguistically.

I go wood hit hold come put-PERF-l.sG
i went and chopped wood and got it and came and put it.

Most of what we conceive of as events are actually sequences of actions, and languages can divide these sequences in different ways to constitute the meanings of verbs. The division of complex events into their component actions is typical of verbal expression in Kalaman and correlates with the fact that the language has fewer than one hundred verb stems, with only about twenty-five of these being commonly used. Needless to say, the commonly used verbs have very general meaning and are applicable to many different situations. They are used in combination with other verbs and with nouns to designate complex actions.

Given the freedom with which individual languages can interpret sequences of actions as events and the mutability of the lexical meaning of verbs in context, it is not surprising that the number of verbs a language has may differ widely cross-linguistically. The number of nouns a language needs is directly related to the number of concrete objects (and abstract concepts) that are culturally im...
important, but the number of verbs depends upon how many objects are conceptualized and lexicalized. We have just mentioned Kalam, with fewer than one hundred monomorphic verb stems, but even more do exist. Among the languages of Australia, especially as one moves away from the east coast, one finds Warlpiri with around 110 simple verb roots, Walmatjari with about forty simple verbs, Gurindji with no more than thirty and some languages in the Kimberleys and Daly River area with only about a dozen verbs to which inflections can be added (Dixon 1980: 290). These are of course used in combination with other elements to produce a wide variety of verbal meaning.

2.2. Degree of specificity

Verbs can also differ cross-linguistically, much as nouns and adjectives can, in the degree of specificity with which similar events are distinguished from one another. While many languages have a verb corresponding to Eng. eat in the Papuan language Yimas (as in other Papuan languages) one verb only covers 'eat, 'drink' and 'smoke (tobacco). Such differences are also common in more abstract domains where we find Spanish differ in whether to 'know (a fact) and cono (to know a person or place), to be acquainted with. It is natural for differences in specificity to result in a difference in selection restrictions – the conditions on a verb that determine the type of arguments with which it occurs – since the meaning of a verb and the type of arguments it takes are closely interrelated. Other differences are possible as well. For instance, English has many more lexical verbs for manner of movement than Spanish does (see also section 2.3). For example, the one Spanish verb brinca covers the general range of the six more specific English verbs bound, dive, hop, jump, leap, and spring (Slobin 1997).

2.3. Motion verbs

Another way that verbs may differ lexically across languages is according to which of the simultaneous aspects of the event are incorporated into the meaning of the verb. Motion verbs differ across languages according to whether they incorporate the path or direction of motion as in Span. entrar 'to go in', salir 'to go out', bajar 'to go down' and subir 'to go up'; the manner of motion, as in Eng. roll, float, bounce; or the shape of the moving object, as in Atsugewi-lap 'for a small shiny spheric object (e.g. a round candy, an eyeball, a halstone) to move or be located'. -gusat - for loose, dry dirt to move or be located - gusi - for a slimy lumpish object (a toad, a cow dropping) to move or be located (Talmy 1985). While the incorporation of direction and/or manner are familiar from European languages, the incorporation of properties of the moved or located object are found in Native American languages, such as Atsugewi (Hokan) and Navajo (Athapaskan), as well as in American Sign Language. Cross-linguistically, verbs that incorporate features of the moved or located object are known as classifier verbs.

2.4. Valence

Perhaps the most important inherent lexical property of a verb is its valence, that is, the specification of the number and role of the arguments that a verb may take. In most languages, whether a verb is transitive, intransitive or ditransitive is a lexical property of the verb (although there are some languages in which verbs may be used as transitive or intransitive without any morphological changes). One way that verbs of similar meaning may differ is in whether languages take their human participant as the subject, as in Eng. I like beans but other languages make the human participant an argument of an experience, as in Span. Me gustan los frijoles.

Besides the number and grammatical role of the arguments, the meaning of a verb specifics the animacy or humanness for certain arguments. The incorporation of information about the physical attributes of an entity for motion and location verbs has already been illustrated. More common are specifications of animacy or humanness for certain arguments of a verb. Such conditions on the use of verbs with specific arguments are known as selection restrictions.

Another property of participants that is sometimes incorporated into the verb is plurality of the absolute argument, as in the following pairs of verbs from kung (Smyman 1969: 124f)

<table>
<thead>
<tr>
<th>English</th>
<th>Kung</th>
</tr>
</thead>
<tbody>
<tr>
<td>«pick»</td>
<td>pick sg.</td>
</tr>
<tr>
<td>«take»</td>
<td>take sg.</td>
</tr>
<tr>
<td>«break»</td>
<td>break sg.</td>
</tr>
<tr>
<td>«lay»</td>
<td>lay sg.</td>
</tr>
</tbody>
</table>

The plurality of participants is often related to other aspects of plurality of action, such as distributed or repeated action (see section 3.5.3).

2.5. Lexical aspect

Another prominent lexical parameter for verbs is aspect or Aktionsart, since the meaning of a verb specifies the temporal contours of the event it is describing (Comrie 1976; Dahl 1985: Art. 109). One distinction that is sometimes regarded as aspectual has already been mentioned – the distinction between stative and inchoative. This distinction is lexicalized in such English pairs as know and realize. Another type of aspectual distinction occurs between verbs designating only one cycle of an action versus those designating repeating cycles. Thus step constitutes one cycle of which walk designates multiple repetitions. Other examples are hit and beat, snort and snore.

2.6. Dynamic vs. stative

A stative situation is one that is extended in time and which involves no change, while a dynamic situation brings about some kind of change. Thus know and tell are stative predicates in English, while run and buy are dynamic predicates (Comrie 1976: 48f). Of course there is a certain degree of indeterminacy for situations such as sleeping or standing which might be conceptualized as stative or dynamic, as well as for cases in which a steady state is maintained actively, such as emitting a pure tone or holding one's breath. The distinguishing factor that has been suggested is that stative situations are maintained until something happens to change them, while dynamic situations require a constant input of energy to be maintained. Thus sleeping and standing would qualify as stative under this criterion, but emitting a pure tone and holding one's breath would qualify as dynamic.

3. Lexical classes that are morphologically significant

The two semantic distinctions that are most important for verbal morphology are the transitive/intransitive distinction and the dynamic/stative distinction. Languages such as Nahual, which have subject and object markers on the verb, have a different morphological structure for the verb if the verb is transitive rather than intransitive. In some

796  797
languages this difference amounts only to the addition of object markers to the verb along with the subject markers, or ergative in addition to absolutive. The following examples

(5) intransitive

(sura) s-v-c-y t

'1 go.'

(6) transitive

(sura barâ) hççya 1s-2-s-ch-i-y t

(1) you well 2SA.1.GEN-ERG-SEE-DYN-FIN

'I like you.'

(7) ditransitive

sa-ç-ta xâç XOJo-t-3-PL-ERG-tell-FIN

'my brothers told me the news.'

In some cases the extent of morphophonemic fusion between subject and object markers makes the transitive markers appear quite different from the intransitive ones (e.g. in the Mung language of Australia). In Algonguian languages, the transitivity of the verb determines the nature of the final suffix, and also the interpretation of the person/number affixes as referring to the subject or the object.

In addition, transitive and intransitive verbs differ in the extent to which they can be affected by morphological valence-changing processes, such as causative: in some languages stative verbs have fewer ascriptive and others in vowels. or for semantic reasons. for instance when some stems end in consonants as when different auxiliaries that give rise to

(see Art. 65). Such affixal allomorphy arises and voice distinctions can also occur from the use of a locative element with a scale from true assertion to referring to a state of affairs as though it were an entity, so that the formal properties of verbs are modified on a scale of finiteness (Giv6n

2. Pl.

Tab. 77.1: Portuguese personal infitive

<table>
<thead>
<tr>
<th>finiteness</th>
<th>finite</th>
<th>dependent infinite</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. sg.</td>
<td>(eu) canto</td>
<td>'I sing'</td>
</tr>
<tr>
<td>2. sg.</td>
<td>(tu) canta</td>
<td>'you sing'</td>
</tr>
<tr>
<td>3. sg.</td>
<td>(ele) canta</td>
<td>'he sings'</td>
</tr>
<tr>
<td>1. pl.</td>
<td>(nós) cantamos</td>
<td>'we sing'</td>
</tr>
<tr>
<td>2. pl.</td>
<td>(vos) cantais</td>
<td>'you sing'</td>
</tr>
<tr>
<td>3. pl.</td>
<td>(els) cantam</td>
<td>'they sing'</td>
</tr>
</tbody>
</table>

regard the book as one to be read. I think one should read the book.'

Other nonfinite forms belong to the general category of verbal noun, since they bespeak the properties associated with nominals allowing the verbs to be used in non-canonical functions. The gerund is a non-finite substantive verb form whose logical subject is usually referential with the subject of the main verb or more rarely, the object of the main verb. For example:

'The edge of the ridge, we saw the valley stretch out before us where the logical subject of coming is we.

The infinitive form of the verb rarely has person/number agreement and sometimes lacks tense or aspect (though it may appear in both active and passive voices). As predicted, the infinitive does not appear as the main verb in the asserted clause of a sentence, nor does it present information in the main narrative line of the discourse. Rather an infinitive appears in a context in which it does not bear a syntactic relation to its nominal subject (there is the lack of person/number agreement, as for instance in complement clauses such as I want him to do it (Noonan 1985: 20). It is commonly for an infinitive to be formed with the adposition or case marker indicating allative, benefactive or dative relations (e.g. in Chuvash [Turcic]). Umdurt [Finn-Stroganoff] and Hebert's (Haskelmath 1991). Cross-linguistic and diachronic evidence suggest that infinitives develop from the use of a locative participle and a verb in constructions indicating movement for a purpose (I went to see him) to general purpose (He saved money to buy a car) and then to complement clause (He saved money to buy a car) (Haspelmath 1991; Bybee et al. 1994). Thus infinitives are widely used in all of these contexts, as well as in other subordinate contexts. While it is uncommon for infinitives to show person/number agreement, a notable exception is the personal infinitive of Portuguese, which has the forms shown in Tab. 77.1:

In the cooccurrence restrictions that they manifest. For instance, it is common for a perfective morpheme to have a present state interpretation when used with a stative predicate (e.g. in Island Carib [Areawa]. Tahitian [Eastern Oceanic] and some Akan/Asante]. A progressive morpheme may have a present state interpretation with a stative predicate (as in Kanukuru [West Chadic]) or it may simply be used as a stative (as in English or Congolese [Tshi].)

Cooccurrence restrictions based on the lexical aspect of the verb are common for derivative categories and for grammaticizing constructions that are near the beginning of the grammaticization chain. This is the case for progressives, as mentioned above, but it also applies to iteratives (meaning repetition on one occasion), which apply only to dynamic verbs and at the beginning of their development only to telic verbs. Similarly, resultative only apply to dynamic verbs, and in fact, are most appropriate with process verbs. On the other hand, inchoatives are restricted to statives.

Lexical classes of verbs that are semantically arbitrary also affect the morphology. Some languages, such as Romance languages, have different sets of allomorphs for tense, aspect and mood depending on the arbitrary lexical classification of verb stems, commonly referred to as conjugation classes (see Art. 65). Such affixal allomorphy arises sometimes for phonological reasons, as for instance when some stems end in consonants and others in vowels, or for semantic reasons, as when different auxiliaries that give rise to

4. Morphology

and the function of verbs

In their most prototypical clause-level uses, nouns refer to participants, while verbs show the relation among those participants in the situation. On the discourse level, nouns prototypically introduce participants into the discourse, while verbs assert the occurrence of an event of the discourse (Hopper & Thompson 1984: 708). When a verb serves this asserting, reporting, function, it carries its fullest morphological marking – person, number, tense, aspect, modality or whatever categories are marked in the languages and is considered to be finite. On the other hand, when it serves other functions its morphological markings are substantially reduced (Hopper & Thompson 1984). Just as the functions of lexical verbs in context may vary along a scale from true assertion to referring to a state of affairs as though it were an entity, so the formal properties of verbs are modified on a scale of finiteness (Giv6n

3. Pl.

Tab. 77.1: Portuguese personal infitive

\[\begin{array}{|c|c|}
\hline
\text{finiteness} & \text{finite} & \text{dependent infinite} \\
\hline
1. sg. & (eu) canto & 'I sing' \text{ para (eu) cantar} \\
2. sg. & (tu) canta & 'you sing' \text{ para (ti) cantar} \\
3. sg. & (ele) canta & 'he sings' \text{ para ele cantar} \\
1. pl. & (nós) cantamos & 'we sing' \text{ para nós cantarmos} \\
2. pl. & (vos) cantais & 'you sing' \text{ para vós cantardes} \\
3. pl. & (els) cantam & 'they sing' \text{ para eles cantarem} \\
\hline
\end{array}\]
Thus in all of these cases where the verb stem is serving a function other than to assert the occurrence of a specific event, the verb carries fewer inflectional distinctions. When the verb is performing its causative function, nominalizations may be marked for those categories of high relevance to the verb, such as aspect and tense, as well as for categories that have clause-level or discourse-level functions. Since the verb is central to the clause, showing the relation among the participants, it is also the repository of clause-level morphology in those languages, serving as the bearer of markings of epistemic and speaker-oriented mood, evidentials, honorifics, negation and interpolation. A discussion of these inflectional categories follows in 6.

5. The formation of verbs

5.1. Compounding and incorporation

One method languages exploit to create new verbs is compounding — the combination of two lexical stems into one verb (see Art. 87). The two components may consist of any word class plus a verb as head: noun and a verb (Eng. buy-sell), two verbs (Enggo get-go 'throw-be lost = throw away'), Mandarin li-ma pull-open = pull open!'), or an intransitive verb or adposition plus verb (as is common in Indo-European languages: Lat. adio 'toward-go = approach', Germ. mitführen 'with-feel = transport'). The entire formation is then inflected according to the usually regular morphological categories of the language, and hence qualifies as a single verb.

Directional adverbs that compound with a verb may eventually come to signal aspectual meaning (see section 5.3.4).

Related to compounding is the process of noun incorporation, which involves the morphological incorporation of a noun into a verbal complex (see Art. 88). Noun incorporation differs from compounding in being restricted to a sometimes rather large subset of the available nouns and verbs in the language. In particular, the nouns that can be incorporated include body parts, food or game and cultural products. These items are often in a generic or rather specific level of categorization; that is, proper nouns are never incorporated and a word at the level of categorization of tree is likely to be incorporated, but not a word that names a species of tree. A typical example of noun incorporation is shown in (11).

(11) Tiwi (Osborne 1974: 47)

\[
\begin{align*}
\text{mu'wami } & \text{is a form lacking both} \\
\text{a form} & \text{that gives rise to new inflections (see Art. 88).} \\
\text{In languages with two lexical stems into one verb (see Art. 87),} \\
\text{the first} & \text{or last verb has access to the full range of} \\
\text{actual} & \text{or isomorphic meaning (see section 5.3.4).} \\
\text{The entire} & \text{or isomorphic meaning (see section 5.3.4).}
\end{align*}
\]

5.2. Verbalization processes

Another way to form new verbs is to derive them from nouns and adjectives (see Art. 89). Verbs derived from adjectives usually mean to become Q, as in Spanish enganchar 'to enlarge' from grande 'big, large', and are inchoatives, which in general specify entry into a state. Some forms are used with a causative agent, they are termed facticitives. An English verbalization such as blacken can be used as an inchoative or a factive. Verbs may be derived from nouns by simply adding verbal inflection to nouns, as in English hammered, or they may be derived by adding affixes to the noun stem. These affixes always add a new meaning to the stem than inflection does. The most common meanings for verbalizers are 'to be X' and 'to do X's action, with 'to become X' and 'to make X' also occurring frequently in the following examples (Woodworth 1991: 190, 201).

(12) Modern Greek 'to do X's action' 
\[\text{art-kra-} \text{IMP-1SG} \text{LAW \text{to wear}}\]

(13) Karok 'to be X'
\[\text{tu-xi-} \text{water-VRZ} \text{to be wet} \]

(14) Karok 'to make X'
\[\text{tu-xi-} \text{to fry eggs} \]

(15) O'oodham (Papago-Pima) 'to become X'
\[\text{ch-daz-te-} \text{D-VRZ} \text{ki7} \text{to become ki7} \text{turtle} \]

Some languages have verbalizers with more specific meanings, such as English 'to have few Xs', 'to hunt Xs poorly' or O'odham (Papago-Pima) 'to break' or 'to take X away forcibly'. These more specific verbalizers are undoubtedly related to incorporation constructions (Woodworth 1991).

5.3. Verbs derived from other verbs

A variety of processes of affixation or reduplication exist that derive one verb from another. These processes involve valence changes, aspect changes or the addition of locational and directional meaning.

5.3.1. Valence-changing morphology

The most common type of derivational morphology for verbs in the languages of the world is valence-changing morphology (cf. Art. 107). Although some languages allow the same verb stem to be used in intransitive, transitive or causative constructions without a change in morphology e.g. English verbs such as open and boil, most languages do have some morphological means of changing valency. Causative morphology is by far the most frequently occurring, as in these examples from Syrian Arabic: ma'ad za'li 'brought down', niz7 'to stay', nusr 'to put to sleep'. Of course, the effect of causative on an intransitive verb is to make it transitive, and the effect of a transitive verb is to make it ditransitive. Detrivialization or anticausative formation also occurs, as in
this example from Turkish: aqi -ni ‘open-PAST’, aqi-nali ‘open-ANTI.CUS-PAST’.

A highly generalized valence-increasing process occurs in many Bantu languages. When an affix, called the applicative, is added to verbs it increases the number of objects that may occur in the clause. In Chishona this added argument can represent a goal, a motive, a prepositional phrase, or even an intransitive or clausal adjunct. The applicative suffix in Chishona is -ir- or -er- (Harford 1993).

(16) Applicatives in Chishona

(a) Goal:
Ama11
váků-rám-ir-á
mu-kònga
chí-po
CLASS1-mother CLASS2a-REM-PAST-send-APPL-IND CLASS1-old.brother CLASS7-GIFT
‘Mother sent the older brother a gift.’

(b) Motive:
Baha
váků-rán-ív-irá
mubha mari
CLASS3a-father CLASS2a-REM-PAST-kill-APPL-IND person money
‘Father killed a person for money.’

c) Prepositional phrases:
A-no-núz-ir-á
CLASS1-PRES-feel-APPL-IND
sisiti
kunà
va-núzé
CLASS9-pity towards CLASS9-others
‘He has pity on others.’

d) Infinitive adjunct:
Baha
váků-rán-ív-irá
nyokó
nokutí
CLASS3a-father CLASS2a-REM-PAST-kill-APPL-IND snake because
y-akú-ngà
y-akú-pínd-á
mu-mhà
CLASS9-REM-PAST-ENTER-IND CLASS18-in.house
‘Father killed the snake because it had entered the house.’

5.3.2. Attraction of adpositions to verbs

It is also common for prepositions and postpositions to become affixes on verbs, giving them directional or locational meaning, or changing their valence or aspect. In Southern Lwo (Western Nilotic) languages what was previously a preposition occurring with indirect objects has become a suffix on the verb. For instance, in Dholo, the preposition ni occurs with indirect objects that are full nominals, but when the indirect object is nominal, the preposition and pronoun are both suffixed (Reh 1986: 123f.):

(17) Odhiamo

(a) otióno
a-kelo
m
odhiamo
kitahu
Otióno
PERI-bring DAT/BEN
Odhiamo
book
‘Otióno has brought a book to Odhiamo.’

(b) a-kelo-n-n
kitahu
3sg-bring-DAT/BEN-1sg book
‘She brings me a book.’

In the related language Lango, the dative/benefactive marker and the agreement marker are suffixed in all cases. The -ri of the suffix has assimilated to the final consonant of the stem (Reh 1986: 126):

(18) dákì
3sg-bring.BEN woman
‘She brought it for the woman.’

In verb-final languages in which adpositions occur after the noun and before the verb, they may become prefixes on the verb. The following examples from Abkhaz show the instrumental postposition after the noun (19a) and alternatively incorporated into the verb (19b) (Hewitt 1979: 114):

(19) Odhiamo

(a) a-zalá
a-la
wà-rá-sýr
ART-hammer it-with 1-him-hit-FIN
‘I hit him with my hammertime.’

(b) a-zalá
a-sár-á
wà-rá
ART-hammer it-hit-FIN
‘I hit him with my hammer.’

5.3.3. Locational and directional morphology

Many languages have locational morphemes that affix to the verb indicating the location of the situation described by the verb. Such affixes most commonly use the location of the speaker as the deictic reference point. The location of the hearer is only used in systems which also use the location of the speaker. In the highly elaborated system of Nimboran (North Papuan) such affixes indicate that the situation occurred ‘here’, ‘there’ or ‘far away’, and additionally ‘below’ or ‘above’ (the speaker) (Aanceux 1965: 62–64).

Systems of directional morphemes may be even more elaborate. Such systems are based primarily on allative and ablative, goal, and the affix meaning ‘down from the sky’.

5.3.4. Aspectual derivation

One common type of aspectual derivation makes a verb complete. Completive action has been carried out thoroughly and completely, often with an object that has been totally affected or consumed, or with the implication that all objects have been affected. For instance in Karok, the suffix -af added to a verb gives the meaning ‘to go in order to do’ (Harford 1993). When an affix, called the applicative, is added to verbs it increases the number of objects that may occur in the clause. In Chishona this added argument can represent a goal, a motive, a prepositional phrase, or even an intransitive or clusal adjunct. The applicative suffix in Chishona is -ir- or -er- (Harford 1993).

Other examples of adpositions that become associated with the verb are the separable prefixes of German and Dutch, and the verb particles of English.

5.3.3. Locational and directional morphology

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Systems of directional morphemes may be even more elaborate. Such systems are based primarily on allative and ablative relations, again using the location of the speaker as the primary reference point. Nimboran has eleven directional affixes, that specify the possible combinations of movement to and from the five positions listed above (Aanceux 1965: 70–79). Other languages have even more specific meanings for directional affixes. For instance in Karok (Hokan) a set of more than thirty directional affixes have meanings as ‘hence upstream’ and ‘bitter from upriver’; ‘horizontally away from the center of a body of water’ etc (Bright 1957: 95–105). In Nicobarese directional affixes indicate movement towards the jungle versus movement towards the village or the sea (Braine 1970: 173–176). Of course, such specific meanings for directionalities reflect the geographical environment of the cultures in question.

At times such directional affixes also take on aspectual meaning, as in the case of the Nicobarese affix meaning ‘into the jungle’ which also has completive meaning. The Karok affix meaning ‘up to the height of a man or less’ also means ‘to start to’ while the affix meaning ‘down from the height of a man or less’ is used with state predicates to indicate the action that results in that state (Bright 1957: 97, 102f.). Adative and enclitic markers on verbs indicate motion away from and towards the speaker, or they indicate ‘go in order to do’ and ‘come in order to do’. For instance in Karok, the suffix -af added to a verb gives the meaning ‘to go in order to do’ (Harford 1993). When an affix, called the applicative, is added to verbs it increases the number of objects that may occur in the clause. In Chishona this added argument can represent a goal, a motive, a prepositional phrase, or even an intransitive or clausal adjunct. The applicative suffix in Chishona is -ir- or -er- (Harford 1993).

(20) hu-péo-ami
eat-COMP-1PL3sg
‘he ate all of it’

nuhi-péo-api
paddle-COMP-1PL
‘we paddled all the way over’

Directional particles or adpositions can be used to give completive meaning, as in the English phrases *eat up* or *burn down*. If this use of directional morphemes is generalized, it may lead to the establishment of a deriva...

Another common aspect that may be expressed derivationally is the iterative aspect, defined as the repetition of an action on a single occasion. Iterative is often expressed...
by reduplication and can have as other meanings habitual, continuative, frequentative and distributive (cf. Art. 109). Consider the following examples from Mwera (Eastern Sudanic) (Harries 1995: 77):

(22) 

tu 'eat' 

(23) 

to slit open

kwa 'fall' 

(24) 

'kill'

tawa 'tie'

(25) 

'toss'

pinga 'want'

(26) 

'search for'

jenda 'travel'

(27) 

'wander about'

5.3.5. Plurality of action

In section 2.4 examples were given from Kung of lexical differences relating to singular vs. plural participants. Many languages have a derivational category of plurality of action that may refer to the participation of multiple entities as the absolutive argument, or it may signal that the action was distributed over multiple objects, over space or over time. Consider the prefix wa: in Pawnee (Parks 1976: 279):

(28) 

wa:wina to defecate here and there

(29) 

rawa:hat to pass (to various people)

(30) 

wa:tu to give (various things)

Sierra Mwoiok has a similar 'distributive' suffix -t, as shown in the following examples (Freeland 1951: 112):

(31) 

po:ze-ti: to split open several

(32) 

ma:za-ti: (to kill several)

(33) 

ha:za-ti: (to toss away repeatedly or several)

Such derivational morphemes do not mark an argument as absolutive, but rather signal that the action of the verb itself occurred more than once. As a consequence of the plural action several objects may have been affected, or the action may have been distributed in time or space.

6. Inflectional morphology

By far the most common inflections for verbs are for aspect, tense, mood and person/number. In a sample of 76 maximally unrelated languages (the Gramcats Sample of Bybee et al. 1994) 65 languages have some verb inflection. Of these, 58 languages have person/number inflection, 61 have aspect, 59 have tense and 56 have mood, making these categories so widespread among languages with inflection as to be almost universal. The grammatical meanings counted as aspect are continuative, frequentative, habitual, imperfective, inchoative, progressive, and progressive (cf. Art. 109). The tenses are anterior (perfect), future, past and present (cf. Art. 110). The moods and modalities are ability, admissive, certainty, concessive, disable, hypothetical, imperitive, inferred certainty, intention, obligation, optative, possibility, probability, prohibitive, purpose and subjective (cf. Art. 111).

When these categories are affixed to the verb, they tend to occur with the categories that have the greatest semantic relevance to the verb closest to the stem, that is, from the stem outward: aspect, tense, mood, person/number and when they do, it is rarely possible to necessarily be taken to imply a causal relation between x and y.

Some implicational universals concerning verbs have been proposed, having the form 'if a language has property x, it also has property y'. Such statements should not necessarily be taken to imply a causal relation between x and y.

One implicational universal that appears to hold true for nouns as well as verbs is that the presence of inflectional morphology implies the presence of derivational morphology (Greenberg 1963). For verbs, this reflects the fact that almost all languages have some ways of deriving verbs, with valence-changing processes, especially causative, being almost universal. On the other hand, some languages have no inflection at all, in particular many Sino-Tibetan and Mon-Khmer languages, as well as some Oceanic languages and of course Creole languages. As mentioned above, in the Gramcats Sample of 76 languages, eleven have no verbal inflection at all, while most of these eleven do have some derivational morphology.

A more specific implication is that the presence of person-number categories on the verb implies the presence of aspect, tense or mood categories on the verb (Greenberg 1963: 93). Again as a premise follows from the fact that person-number categories occur only to clarify the referents of the pronominal affixes (Nithiu 1986).

Person/number markers on verbs sometimes include distinctions for gender or noun class. For instance in Kroko, the finite verb has a prefix indexing the subject of the verb. In Tab. 77.2, n- is used for first and second person singular and for neuter, ns- is used for feminine, s- for third singular and k- for plural (Reh 1985).

<table>
<thead>
<tr>
<th>First and second person</th>
<th>Third person</th>
</tr>
</thead>
<tbody>
<tr>
<td>sg. n-ì:ìkì ìkìgì</td>
<td>m-ì:ìsì (ímììì)</td>
</tr>
<tr>
<td>n-ì:ìsì ìkìgì</td>
<td>s-ì:ìsì (ssìsì)</td>
</tr>
<tr>
<td>m-ì:ìsì</td>
<td>o-ì:ìsì (ìsììì)</td>
</tr>
<tr>
<td>n-ì:ìsì</td>
<td>k-ìsì (ìsìì)</td>
</tr>
<tr>
<td>m-ì:ìsì</td>
<td>k-ìsì (ìsììì)</td>
</tr>
</tbody>
</table>

Tab. 77.2: Person/number markers in Kroko

7. Implicational universals
in fewer languages than aspect, tense and mood categories do. That it is not a strict or classical implication is shown by the fact that there are exceptions to this statement. For instance in Trukese (Oceanic) object markers are suffixed to the verb, but subject markers and mood are not. In Dakota (Siouan), object markers are contained in an auxiliary that is not bound to the verb, but rather appears in sentence-second position. Another type of exception is exemplified by Dakota (Siouan), which has a elaborated person-number system incorporated into the verb (prefixed or infixed), but most aspect, tense and mood categories are expressed by particles or auxiliaries.

One might expect implicational relations to hold among aspect, tense and mood categories. However, no such relations can be substantiated; rather these three categories are so commonly occurring that almost all languages that have one of them have the other two (with a numerical breakdown in the preceding section). In fact, there is some overlap in these categories and it might be more useful to consider the meanings expressed within these categories for universals rather than looking for universals at the level of aspect, tense and mood. For instance, it appears that if a language has inflectional tense or aspect at all, then it has either a perfective or a past morpheme (Dahl 1985; Bybee et al. 1994: Art. 109 and 110).

8. Grammaticized verbs

Three types of verb-like entities occur that are more grammatical in their properties than lexical: auxiliaries, copulas and proverbs.

8.1. Auxiliaries

Auxiliaries (see Art. 78) are usually derived from lexical verbs diachronically but have arrived at a stage in which they always occur in a 'helping' status – as the finite verb in a clause that contains a lexical non-finite verb. Auxiliaries typically code a range of aspectual and modal functions, though they can also be used for passive voice and future tense. They differ from lexical verbs in their inflections: in some cases they code more morphological distinctions than full verbs (as with the English auxiliary be, which distinguishes first and second singular in the present, or the Basque auxiliaries); in other cases they code fewer distinctions, (e.g. the English modal auxiliaries lack third person inflections and do not have participles or infinitives) (cf. Steele et al. 1981).

8.2. Copulas

Copulas are grammatical words that serve the predicating function in clauses with predicate nominals (Bob is a rancher). The same form often occurs with predicate adjectives (Bob is short) and locutives (Jane is down by the windmill). Semantically, copulas are highly generalized stative predicates, but they are not always totally lacking in meaning, as evidenced by the fact that some languages (e.g. Spanish, Portuguese and Irish) have two copulas, one indicating a permanent or stable state and the other indicating a more temporary state. Copulas often carry the morphological markers of verbs, including tense, aspect and person/number. However, they can also be defective, lacking certain markers that appear on other verbs. One source of this defectiveness is the fact that they are stative verbs, and stative verbs often mark fewer aspectual distinctions than active verbs. In some languages (e.g. Russian) the copula is omitted when it occurs in unmarked verbal categories, such as present tense, but it appears in non-present contexts bearing the markers of tense.

Another reason for their defectiveness in verbal categories is that some copulas are not derived from verbs at all, but rather from pronouns. Even in these cases, however, person/number or gender agreement with the subject may be present. For instance, in Dakota agreement with plural subjects is marked with the suffix -pi on the 'defective verb' c, which is derived from an emphatic pronoun. Complete lack of inflection can arise if one form of the pronominal copula (usually the third singular masculine form) generalizes to be used with all subjects, as in Tigre (Semitic), where the singular masculine pronoun copula tu can be used with all subjects in copula constructions.

8.3. Proverbs

Some languages have highly generalized dynamic verbs that take the place of lexical verbs under certain grammatical conditions. The best-studied situation of this type occurs in English, where the verb do stands for lexical verbs in constructions such as Bob likes ice cream and so do I. The pro-verb do also fills the auxiliary position when no other auxiliary is present in negative constructions (e.g. Jane doesn’t like ice cream) and in questions (Do you like ice cream?).

Another function for highly generalized dynamic verbs is the formation of new verbs, especially from nouns. For instance, Japanese forms verbs from nouns (especially of Chinese origin) by adding the verb suru (do, perform, make) to the noun: benkyou-suru (study-do = study). In Kanuri a large number of verbs are conjugated with the inflected form of the verb ‘to say’ added to their stem.

9. Uncommon Abbreviations

AGR agreement
AGT agent
APPL applicative
COMP consequent
DIST distributive
DYNT dynamic
EVI evidential
FIN finite
MED medial
SUBJ subject
VBZ verbalizer

10. References


Davies, John (1981). Kosovo: Amsterdam: North Holland (Lingua Descriptive Studies 3)


78. Auxiliary

1. Auxiliaries as a morphological class
2. Paradigmatic vs. syntactic auxiliaries
3. Auxiliaries and verbhood
4. References

1. Auxiliaries as a morphological class

Auxiliaries reflect in their morphology categories which may also be marked morphologically on (other) verbs. Their distinctive ness lies in their paradigmatic and syntactic relationships with (other) verbs. In much of the linguistic tradition the paradigmatic relationship has been taken to be the salient one.

1.1. A traditional view: helping verbs

Traditionally, the term auxiliary is applied to a verb which in combination with another verb regularly supplies part of the paradigm or potential paradigm of the second verb. In such terms, the Latin verb form *est* in (1d):

(1) (a) *moneat* 'he advises'
(b) *monauit* 'he thus advised'
(c) *monetum* 'he is advised'
(d) *monius est* 'he was has been advised'

can be described as manifesting an auxiliary: this auxiliary has the distribution and morphology of a verb; and in combination with another verb, here *monere* 'advise', in its perfect participle form, it supplies a term in the paradigm of the latter which is not expressed morphologically, the passive perfect: it helps complete the paradigm (cf. Vincent 1987; Art. 62). (1b) and (1c) illustrate respectively the (morphological) active perfect and passive present. (1d) is often described as a periphrastic form of the verb *monere* (cf. Art. 68); and the construction is said to be grammaticalised (cf. Art. 145).

The notion of potential paradigm is important here, however. For the English verb form *is* of (2b):

(2) (a) *he advises*
(b) *he is advised*

is likewise described as an auxiliary, even though there is no morphological realisation of passive in present-day English; its expression always requires an auxiliary. Thus, in order to confer auxiliaryhood, in this traditional sense, we need to know the set of inherent categories in principle available for expression in the morphology of verbs. It is desirable that this set should be well-defined. At any rate, it will include the categories of tense, aspect, voice, polarity, mood and modality; these, in turn, will require definition, of course, if they are to be identified cross-lin-