spoke Fox (Joffe 1940:294); this seems to have been in spite of a lengthy history of contact with both French- and English-speaking colonial powers. The Southern Utes, similarly, in 1935 showed only six English speakers out of 450 people (Oppler 1940:187), perhaps the result of lack of contact.

In general, at this point in the Second World War, the functioning linguistic competence among groups showed a stratification by age, with the oldest members controlling only indigenous languages (and perhaps their mother tongue). The middle cohort under about 50 years old added English to their repertoire and perhaps lacked productive competence in the older colonial language. The youngest cohort, including those very young adults, were bilingual in the primary language and English, and in general were on a course toward primary use of English rather than the indigenous language. This was apparently true of groups with the following primary indigenous languages: Yaqui (Spicer 1961:72); Taos (Trager 1939:51); Pima (Herzog 1941:71, 72), where an older colonial language was Spanish; to some extent Navajo (Vogt 1961:324); Kwakwaiul (Codere 1961:506); Wisconsin Oneida (Swadesh 1941:61), with no eldest-cohort other colonial language; Mandan (Kennard 1935:2; Bruner 1961:261-262, 267), where the pre-English bilingualism was in another Indian language, Hidatsa, with the speakers of which the Mandan internmarried upon tribal consolidation, leading to the virtual extinction of Mandan. An interesting inverse case is reported by Mead (1932:126-127) for the Omaha of the late 1920s, where knowledge of English was progressively weaker for the younger people she interviewed, perhaps indicating an increase in group isolation.

Since the Second World War, there have been significant changes, and in many places, total, replacement of indigenous languages by English, notwithstanding increased sensitivity to heritage languages as important aspects of group culture. A locally particular mix of demographic and economic factors almost everywhere has shifted the functional significance of use of indigenous languages and English. The indigenous languages thus survive in public as a ceremonial or religious medium, as was already reported to be the case among the Yaqi in the 1950s (Spicer 1961:82). Given a strong re-ethnicization trend in the 1960s and 1970s (see Fishman et al. 1985; Fishman 1991:227-229), the situation in many communities was in unstable flux as efforts were made to define and implement, for example, through schools, more productive community knowledge of heritage languages in the hope of maintaining some normative functions for them in the face of actual primary English-language competence.

### Overview of General Characteristics

**Marianne Mithun**

The several hundred languages indigenous to North America show tremendous diversity in their structures. This fact is not surprising, since they represent so many genetically distinct language families and are spoken over such a wide area. No characteristics are both universal and unique to the continent. Nevertheless, certain features quite unlike those familiar from the languages of Europe and Asia are well developed and pervasive (see Boas 1911).

**Sounds**

For the most part, vowel systems in North American languages are relatively simple, but consonant systems vary considerably. Most languages of eastern North America have small consonant inventories. Mastissini Cree, an Algonquian language of Quebec, contains the 10 consonants p, t, k, c, ê, h, m, n, w, and y (Rogers 1960:90-91). Mohawk, an Iroquoian language of Ontario, Quebec, and New York State, also contains 10: t, k, x, c, ê, h, m, n, w, and y. By contrast, many languages west of the Rockies show large inventories. Central Pomo, a Pomoan language of Northern California, contains 30 consonants: p, p, t, k, c, ê, h, m, n, w, and y. Heiltsuk, a Wakashan language of British Columbia, contains over 40: p, x, t, k, s, m, ê, h, m, n, w, and y. Certain distinctions are especially common in North America. Ejecitives (glottalized obstruents) such as p, t, c, ê, and ê, appear in many families, among them Siouan, Yuchi, Caddoan, Coahuilteco, Kiowa-Tanoan, Keresan, Athapaskan, Chumashan, Salinan, Yokutsan, Maiduan, Wappo, Pomoan, Yuki, Wintuan, Washoe, Yana, Chimurco, Shastan, Klamath, Takelma, Coosan, Siu-Siutlag, Chinookan, Sahaptin, Chimakuan, Salishan, Wakashan, Tsimshian, Tlingit, and Haida.

The distribution of ejjectives is partially areal. The Yurok language of California, for example, contains ejjectives like its neighbors, although its genetic relatives, Wiyot and the Algonquian languages spoken in the Plains and the East, lack them. Clicks (suction stops) have not been documented.

Many languages, especially in the West, distinguish velars (e.g., k, x) from back velars or uvulars (e.g., q, s). Among these are the Chumashan languages, some Pomoan languages, Wintuan, Chimariko, Achumawi and Atsugewi, Alsean, Chinookan, Sahaptin, Chimakuan, Wakashan, Salishan, some Athapaskan languages, Tlingit, Tsimshian, Haida, and Eyak-Alen languages. Labiovelars (e.g., k with lip rounding; ë) appear over a large area, in Iroquoian, Yuchi, Natchez, Tonkawa, Coahuilteco, Zuni, Uto-Aztecan, Yuman, Alsean, Chimakuan, Salishan, Wakashan, Tlingit, and elsewhere. In some California languages there is a distinction between front and back i. Their positions range from dental (made with the tongue against the teeth as in Spanish or French), through alveolar (made with the tongue tip behind the teeth as in English), and postalveolar, to retroflex (made with the underside of the tongue tip). Distinctions between front and back are found in the Yuman languages Diegoeno, Cocopa, and Quechan (Yuma), Salinan, the Pomoan languages, Wappo, Yuki, and most Utian languages (Langdon and Silver 1984). A number of languages contain multiple laterals. In addition to plain l, r, one or more fricative or affricate lateralts (l, r, l, l) appear in Muskogean, Zuni, Tonkawa, Alsean, Chinookan, Sahaptin, Chimakuan, Salishan, Wakashan, Athapaskan, and Tlingit. Pharyngeals have developed in northern Haida and several Salishan and Wakashan languages.

A few usually common sounds are conspicuously absent from particular languages. Languages of the Iroquoian and Athapaskan families, the Salishan language Tillamook, and Tlingit generally lack labial stops (p, b) apart from borrowed words and onomatopoetic or expressive vocabulary. Several other language lack nasals (m and n); in the Wakashan languages Nitinaht and Makah, the Chimakuan language Quinault, and the Salishan languages Lushootseed and Twana, all spoken in adjacent areas of the Northwest Coast, original nasals have shifted to voiced stops b and d.

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*Material cited from Mohawk, Central Pomo, Santee, and Cayuga comes from Mithun's work with speakers of these languages, whose names are given with the examples.*
One might wonder why such an utterance is considered a single word. For Mohawk, the answer is clear. The word ‘ta’ is a verb and ‘teh’ is a noun. Mohawks know it is a single word, whether or not they have ever written their language, whether or not they have ever given the argument any thought. A second distinction is that the writer of ‘daw’ is the author of the text, and the writer of ‘daw’ is the author of the book, including words like this, although of course they might pause between words. (Similarly, English speakers might pause between words as they might pause between words in a novel; however, they might pause between words in a novel to say the (reflections).) A third is that a word cannot be interrupted by other words. A fourth is that the components of the word are not generally recognizable to speakers of other languages. A Mohawk speaker would no more identify the meaning of the first sound a context than an English speaker would identify the meaning of the sound ‘s’ pronounced alone (the singular marker of walks). A fifth is that the relative order of morphemes within words is invariant, although the relative order of words within sentences is quite variable. It is possible to posit that any morpheme in the word above was altered, the entire word would be unrecognizable. (Similarly, English scope would never be identified by English speakers as the plural of cup with just an alteration in morpheme order.) A sixth is the fact that many Mohawk morphemes have different forms when they appear in the beginning of a word or when they appear in the middle of a word. The pronoun-how she-him—here, for example, has the formhape at the beginning of the word. Finally, major Mohawk words are pronounced with one primary stress, one syllable that is more prominent than the others. The word above has primary stress on -ta. Criteria similar to many of these distinguish words in other languages across the continent. The propensity for complex words names several issues for the identification of parts of speech within languages. Should single morphemes be classified, like the Mohawk roots -no- ‘door’ and -ta- ‘close’ above, or whole words, like sahawanohnohwahe ‘she opened the door for him again’? Some languages show a strong distinction between kinds of roots. In Mohawk, noun roots and verb roots appear with completely different stress patterns (and suffixes). In other languages, some or all roots behave both as nouns and as verbs, much as in English a stone and its stone. In Atsugewi, Koyukon, and some Coahuilteco, some roots appear only with nominal affixes and name entities, some roots appear only with verbal affixes and describe events or states, and some roots appear with either (Miller 1965:146-147). The root -a on means ‘house’ as a noun and ‘dwell’ as a verb, Coahuilteco and Central Alaskan Yupik contain similar ambivalent roots. Even if whole words are classified rather than roots, complex words have a number of important uses. Words have been classified in at least three ways: on the basis of their internal structure (morphology), their meaning (semantics), and their syntactic use. Nouns might be defined morphologically as those words that can appear with nominal marking, and verbs that can appear with tense marking (walk-ed, like-d). Alternatively, nouns could be defined semantically as those words that are the names of the parts of the object, actions, and verbs that can describe actions (walk). Finally, nouns could be defined syntactically as those words that function as subject and direct objects, in other words, those that describe actions (walk). In some languages, the three criteria generally yield the same categories; but in others, they do not.

In Mohawk, words fall into three distinct classes on the basis of their internal structure: nouns, verbs, and particles. Basic nouns contain only a prefix indicating the gender of the referent, the noun root, and a noun suffix: ka-ha:n-te ‘neuter-noun.suffix = ‘purse’. Possession may be shown by a pronominal prefix referring to the possessor: ak-ha:n-te = my-purse. = noun.suffix = ‘my purse’. A few other suffixes may appear as well. Mohawk verbs, like ‘she opened the door for him again’ above, show quite different internal structures. They can be extremely complex, with not only tense and aspect markers (past and perfective above), but also a pronominal prefix referring to the agent or patient of the event, or both (‘she-became him’ above), marked adverbial role (the relative ‘again’) and reversionary (‘un’-) markers, of negation, direction of action, reflexive action, causation, and many more. They many even contain noun roots within them, like -no- ‘door’. Particles have no internal structure at all: ajji ‘three’, yih ‘no’, ti ‘as’. A classification of Mohawk words based on meaning would sometimes yield a classification of more than one based on internal morphological structure, but not always. Mohawk nouns are in fact almost always the names of entities, usually persons or objects, like kahu:n-te ‘purse’. Mohawk verbs often do describe actions. Yet many verbs are used to name entities. The word below has the internal structure of a verb, but a meaning more typical of nouns in other languages.

The suffixes of sound symbolism, whereby systemic alternations among certain consonants or vowels are associated with particular shifts in

Kinds of Words

Words in European languages have traditionally been classified into parts of speech, usually nouns, verbs, adjectives, adverbs, prepositions or postpositions, and pronouns. These lexical classes do have counterparts in some North American languages, but not all. Many languages have no distinguishable adjectival category. Instead of adjectives (‘the tall man’), nouns might be used (‘the man is tall’). Even with an adjective (‘the man, he is tall’, ‘the man, he is tall’). Instead of adverbs, (‘she walked slowly’), separate verbs might be used (‘she walked, she was slow’) or prefixes and suffixes on the verb. Languages of the Wakashan, Salishan, and Chemakuan families of the Northwest have compiled important discussions about even the universality of nouns and verbs (Sapir and Swadesh 1939:235-236; Swadesh 1939-78:79; Jacobsen 1979; Kinkade 1983; van Eijk and Hess 1986; as well as "Sketch of Thompson, a Salishan Language," this vol.)

The lack of correspondence between word classes is related in part to a striking structural characteristic of many North American languages, termed polysynthetic. Their words tend to consist of many meaningful parts (morphemes). The Mohawk word below, for example, is unusual. The first line shows the word as pronounced, the second its morphemes, the third the meaning of each morpheme, and the fourth the meaning of the word as a whole.

Mohawk (Mae Montour, personal communication 1975) sahawanohnohwahe
= noun.

3-sahawanohnohwahe ['sahawanohnohwahe']
= a-bun-grave:thek= again-past-theh-im-door-close-on-for-perfective
‘She opened the door for him again.’

Observation of General Characteristics
of the words have the internal structure of verbs (all but the particles ne 'the' and ka'/kə/ 'bit'). Yet syntactically, the first is a predicate ('noticed'), the second identifies the subject ('the dog'), and the third is a adverbial ('a short distance away'), and the fourth identifies the direct object ('light'). Mohawk (Rita Phillips, personal communication 1975) VERB wahnudatatokote ne thakwonei ka'/kə/ niyo' re? he noticed it the he is larger a bit it is so far VERB wahnudatatokote, a light stands there 'A short distance away the older one noticed a light.' As can be seen from the examples here, Mohawk verbs contain pronominal prefixes referring to their agents or patients, or both. For this reason they can and often do stand alone as fully grammatical sentences in themselves. Verbs like sahyawanhokatkawake 'he opened the door for him again' and wahidatok 'he noticed it' are grammatically complete. The three common criteria for establishing word classes—internal morphological structure, meaning, and syntactic use—thus do not yield the same categorizations in Mohawk.

Similar complexities are associated with definitions of the parts of speech in many languages. Because of the pervasiveness of polysynthesis in North America, lexical class is a complex and variable term in the analysis of the internal structure of the words, or morphology. For some languages, only two categories are distinguished: inflected words (those with prefixes and suffixes, or both) and uninflected words. For many others, three categories are distinguished: nouns, verbs, and adjectives, and so forth. In some languages of North America and the Inuit languages of the Arctic, the grammatical terms for parts of speech provide good evidence that parts of speech and the appropriate criteria for distinguishing them, are not equivalent cross-linguistically.

The Meaningful Pieces of Words

Mohememes, the meaningful components of words, are of three main kinds: roots, affixes, and clitics. Roots generally convey the principal meaning of words, like English 'jump' or 'walk'. Affixes are added to the verb, 'walk-ed', or Mohawk 'khat- 'purse' in ahskatah 'my purse' and -tok 'notice' in wahidatok 'he noticed it'. Affixes usually modify or qualify the meanings of roots in some way, like English the plural suffix -s or the Mohawk possessive prefix uk- 'your'.

Clitics sound much like affixes in that they are pronounced as part of a larger word; however, they differ from the grammatical patterns. Affixes combine structurally with words of a particular class, such as nouns or verbs; for example, the English plural suffix -s is attached to nouns: [teacher-][s]. Clitics, by contrast, combine structurally with whole phrases or clauses; the English postposition 'me' is attached to the whole noun phrase: [teacher][me], the man I go out with.[m].

A distinction is sometimes drawn between derivational and inflectional. Derivational affixes are used to derive new words, words that would be listed as separate entries in a dictionary. The English -ment of refreshment is considered derivational. It creates nouns from verbs. One would expect to find refreshment and refreshments listed as separate entries in a dictionary. Inflectional affixes do not create new words but systemically specify obligatory distinctions, like the English plural -s. One would not expect to find a separate dictionary entry for the term refreshments; refreshment and refreshments would be considered singular and plural forms of the same word. The term 'stem' is applied to both roots and roots with derivational affixes. English pure, walk, fresh, refresh, and refreshment are all stems. Inflectional affixes are added to stems: pure-er, refresh-ment, walk-ed, refresh-ed.

Root-Affix Combination and the Distribution of Meaning

For the most part, the distribution of concepts between roots and affixes is comparable across languages. The meanings of most Mohawk roots are similar in kind to the meanings of the English roots: who- 'door', hat- 'purse', ksw- 'meal', aq- 'close', k- 'eat', t- 'stand'. Of course the meanings of individual roots do not always have perfect counterparts in other languages. Young and Morgan (1952:282) list 11 different roots in Navajo, an Athapaskan language of Arizona and New Mexico, that appear in verbs transcribed as 'to handle'. Handling a solid, roundish, compact object, such as an apple, barrel, inflated balloon, basket, chunk of cheese, hat, boot, or glove, is expressed by a verb built on the root 'q id'. Handling, flexible object, such as a strip of bacon uninflected balloon, belt, cornhusk, flower, blade of grass, or a pair of objects such as gloves or boots, is expressed by a verb built on a completely different root, q- 'stiff object', such as an antler, arrow, banana, flat basket, string beans, bow, or broom is expressed by a verb built on the root 'q-'. Handling a flat, flexible object, such as an empty bag, blanket, uk, soo, swebel, dollar bill, newspaper, or quiwer is expressed by a verb built on the root thuq. Handling an animate object, such as a baby, a fly, a kitten, a snake, or a man often disable: the word 'fly' is expressed by a verb built on the root -tj. Handling a

mushy object, such as butter, melted cheese, cornmeal mash, scrambled egg, a gob of grease or ice cream, milkshake, or cream, is expressed by a verb built on the root -tse. Handling multiple separable objects, such as aacons, beans, beans, or dishes is expressed by a verb built on the root -nil. Handling pro- fuse, multiple objects is expressed by a verb built on the root -jot. Those that appear at the end, like the English possessive, are enclitics.

A similar system is discussed in "Sketch of Sahaptin, a Sahaptian Language," this volume.

Stem Constructions: Compounding and Incorporation

Speakers of many languages form new words by combining roots, stems, or words with each other to form compounds, like English doghouse or lawnmower. Compounds can be interesting for the record they provide of the kinds of concepts speakers have felt a need to name, often in recent times, and of the features of these concepts they have found most salient, the terms in which they have chosen to describe them. In many languages, compound nouns are formed by combining one noun with another (N + N). Watkins (1984) provides examples from Kiowa. The noun hwy-hwy' ax' consists of the noun roots 'metal' and 'club'. The noun hwy-hwy' ax' 'metal' consists of the noun roots 'ear' and 'stick'. Compound nouns may also be formed by combining a noun with a verb (N + V). The Kiowa noun hwy-hwy' ax' squirel' contains the noun 'pine' and the verb 'pick up'. The noun hwy-hwy' ax' fauncet' contains the nouns 'water' and the verb 'flow'. The noun hwy-hwy' ax' 'snoke' consists of the noun 'house' and the verb 'be real'. In Navajo, hwy-hwy' ax' broken dish' consists of the noun 'dish' and the verb 'shatter'. In some languages, compound verbs may be formed by combining one verb with another (V + V). The Kiowa verb hwy-hwy' ax' lead' back is composed of the verbs 'bring' and 'return'. The verb hwy-hwy' ax' 'lie stretched out sleeping' consists of the verbs 'sleep', 'stretch', and 'be lying'.

In other languages, compound verbs are also formed in some languages by combining a noun with a verb (N + V + V). Compounding of this type, termed noun incorporation, is especially well developed in a number of languages (see the grammatical sketches of Seneca, Shoshone, Zuni, Wichita, Lakota, and Cree, this vol.). It is used by speakers in several ways (Mithun 1984).

Some noun incorporation is simply a basic word-building device, used to create new verbs for recognizable, name-worthy actions. The Kiowa verb stem də'ax- də'ax- 'collect' consists of the noun roots 'food' and the verb 'shatter'. The verb stem də'ax- də'ax- 'to hoe' consists of the noun 'earth' and the verb 'hit'. The verb stem də'ax- də'ax- 'to saw' consists of the noun root 'wood' and the verb root 'cut'. The resulting verb stems serve as the basis of full verb words. The word hwy-hwy' ax' 'we went deerhunting' consists of the parts hwy-hwy' ax' -də'ax- də'ax-'we-deerhunted' and hwy-hwy' ax' open the door' consists of the parts hwy-hwy' ax' -də'ax-də'ax- open the door'.

with meanings like 'underneath', 'at night', 'with teeth', 'backwards'), it cannot form the basis of a verb on its own. It must be combined with another verb in a similar system is discussed in "Sketch of Sahaptin, a Sahaptian Language," this volume.
Noun incorporation can allow speakers to shape the way in which information is presented. If one says in English, "the grammatical subject of the sentence is the head," then when a person's head hurts, speakers are usually more concerned about the owner of the head than the head itself. If the noun 'head' is incorporated, it no longer functions as the subject of the sentence; it simply describes the kind of ache. The Kiowa verb aslîh'takûn 'I have a headache' consists of a-Nip-kîy-ûn-43 'head-43' and the agentive clitic. With incorporation, the only core meaning of male incorporation, or the clausal subject, represented in the proform prefix, is the speaker ('I'), not the head.

In some languages, noun incorporation is used per- vasive for stylistic purposes. Separate nouns are typ- ically used when the speaker wishes to direct special attention to a person or object, as when it is first intro- duced or when it represents important information, per- haps a focus of contrast. Once the person or object has become an established part of the scene, the noun may be backgrounded by incorporation. An example of such noun incorporation can be seen in the passage below from Arikara, a Caddoan language of North Dakota. When a son first asks for a hoop, he uses a separate noun to focus on the hoop. When he mentions it again in the following line, the noun is incorporated into the verb.

Arikara (Alfred Merriotte in Parks 1991, 1-136)
at'âš!  
'Father make it for me'

'Father, make a hoop for me.'

I want that I hoop have  
'I want to have a hoop.'

Grammatical Categories

Languages can differ in interesting ways in the means that become encoded in grammatical categories, the semantic distinctions speakers routinely and auto- matically indicate with prefixes and suffixes. In the many polysynthetic languages of North America, par- ticularly elaborate sets of categories have been gram- maticalized. Each of the 27 languages all over the world, such as causatives (English moist'en 'cause to be moist'). Others are more unusual. Languages can also differ in the choices they offer speakers. What is obligatorily specified in one language may be optional in the next English speakers, for example, must distinguish masculine, feminine, and neuter gender, singular and plural number, and past, present, and future tense. Gender and number are grammatically for very long. Speakers of many North American languages need not specify gender, number, or tense at all, although they can when they wish; however, their lan- guages may require them to specify other distinctions.

Gender is an important property of nouns in many North American languages, number is typically expressed on verbs but less often on nouns. In some languages, gender distinctions can affect the kinds of distinctions encoded in the grammar.

Gender

In many of the world's languages, nouns or noun phrases carry indications of grammatical gender. Gender may be indicated by endings of nouns (Russian consonant-final masculines, a-final feminines, o-final neutrals), by articles (French masculine le, feminine la), and by pronouns (English masculine he, feminine she, neuter it). In some languages, gender classifications are for the most part semantically motivated: male persons and animals are grammatically masculine; female persons and animals are grammatically feminine; all else is grammatically neuter. In other languages, there is more semantic arbitrariness: the grammatical gender of each noun is learned by rote. A large proportion of North American languages grammaticalize gender for all, but various kinds of gender systems have developed in some language families.

Some systems oppose animates and inanimates. In Southern Tiwa, a Tanoan language of New Mexico, animate nouns are marked with a suffix -de, while inanimate nouns carry no gender suffix. Brandt (1970, 109), describing the Sandia dialect, reports that anything capable of independent motion is classified as apatuap or sunvde 'man', tûmbihiti-de 'automobile', kodê-71-de 'bear', wa71-de 'wind', kûnâsûri-de 'wagon', siwi-de 'eagle'. The nouns nakâjum 'tortilla', ôlâmâ 'blue jeans', and pëm 'mountain' are inanimate. Animate nouns have plural forms but inanimate nouns do not.

Animate-animate gender systems are especially well developed in some of the Southern Tiwa categories (see the gram- matical sketch of Cree, this vol).

Some North American languages do exhibit sex- based gender distinctions. In Tiwa, a language of the Southeast, all nouns are classified as either masculine or feminine (Haas 1946). The distinction is marked in noun suffixes, independent personal pronouns, possessive pronominal prefixes on nouns, and pronominal prefixes on verbs. Gender is distinguished for both second- person 'you' and third persons 'he' versus 'she'. Neuter gender form is derived from the other.

Tiwa noun incorporation is possible for persons or animals are generally masculine: tâzo-ka 'chief-MASCULINE'. Those referring to female persons or animals are feminine: tâ-niswâ-ka 'girl-FEMININE'. Most count nouns for inanimates are masculine (tâ-hikûh-ka 'rock- MASCULINE'), and inanimates are more inexpressive exceptions (tâ-rih-ka 'house-FEMININE'). Mass nouns are grammatically masculine: tâ-wîît-ka 'water-FEMININE'. Gender distinctions are maintained in basic singular, dual, and plural contexts. Many Algonquian languages are grammatically masculine: tâ-chû-n-ka 'Chocot-MASCULINE', 'the Chocotaw'.

Person and number distinctions in common verbal verbs in Tiwa are inflected only for third-person feminine singular subject: ti hikûh'tikûh, pî ra'het: 'when (it) feminine) got to be seven years' = 'seven years later', tihô-7â'kîne 'one (feminine) of them off' = 'they have become extinct'. Haas (1946:356) reports that weather verbs such as 'to rain', 'to snow', and 'to hail' appear with masculine subject pronouns, because in Tiwa mythology the Thunder Being, who is thought to control this type of weather, is personified as a man: saqâkhi he has rained'.

Quileute shows a different binary gender distinc- tion. Demonstratives, independent pronouns, and pronominal suffixes carry a distinction between feminine and nonfeminine gender (Andrade 1933). Feminine forms refer to all female persons and ani- mals, and nonspecific to all other entities. The clas- sification can be seen in articles, which distinguish gender, case, and definiteness. Among the subjects in a past tense from a tale told by Seifitis (Andrade 1933:270-28) is the feminines yâ-kît 'the chief's wife', yîh làkîqo 'the married woman', yîk-îl-ôlo 'the mother', yîk-ìdàr-ôlo 'the older sister', and yîk kâl-ôlo 'the younger sister', as well as the nonfeminines yô-qët 'the chief', yîk kàl-ôla 'the tribe', and yîk alôbot 'the star'. Among the def- inite nouns subjects in the same passages are the femi- nines yô-qët 'the house', yà-kała 'the older sister of hers', and kàl yà-kaš-ak 'the younger sister of hers', as well as the nonfeminines xë-ëhët 'the husband', xë-ëhët-ôla 'the tribe', yîk alôbot 'the star', xë-ëhët 'the destination', and xë-ëhët-êhêt 'the place chosen'.

The Chinookan languages of the Columbia River area in Washington and Oregon show three gender cate- gories distinguished in pronominal prefixes on verbs and nouns, and in demonstratives. Boas (1911:579- 605) describes the gender categories of Lower Chinook. Gender classification of nouns referring to persons is straightforward. Masculine and feminine prefixes appear on nouns referring to male and female persons respectively: p-òla-uu 'widower', ì-p-òla-uu 'widow'; l-òla-uu 'female slave'. The neuter gender can be used for indefinite persons or those of unknown or unspecified gender: ìkânas 'a chief'. Similar prefixes appear on verbs with the meanings 'he', 'she', and 'someone': ì-òp-ì he came in (to), ì-òq-ìa she will die, ì-òq-ìa it, someone goes out'. Gender classification of nouns with pronominal prefixes is less straightforward. All genders appear. Boas hypothesized that large animals tend to be classified as masculine ('bear', 'squirrel', 'owl') but small animals as feminine ('beetle', 'chipmunk', 'woodpecker'). A size distinction appears with a few other pairs: ì-p-òq-ìu large round spruce-root basket, ì-p-òq-ìu' small round spruce-root basket. Northern dressing- quill tend to be classified as masculine ("sharp", "sharpen", "cold"), as well as verbal nouns corresponding to past passive partici- ples ("what is eaten"). Hymes (1955:142) points out that in fact little regularity appears in the nonhuman classification in Chinookan languages overall, but modern speakers of Wasco-Wishram, an Upper Chinook language, use the prefixes productively to introduce specific distinctions of gender or size.

'The Northern Iroquoian languages have also de- veloped three gender categories in third-person pronomi- nal prefixes on verbs and nouns: masculine, feminine-indefinite, and neuter-loci ("Sketch of Seeche, an Iroquoian Language", this vol.). In Mohawk, Oneida, and Onondaga, the masculine is used for male persons and personified animals or characters (Mohawk wâhe:ne'kwa-àk 'he drank it'). The feminine is indefinite, which developed historically from an indefi- nite pronoun meaning 'one, someone, people', is still used for personified animals, but it is also used for some feminine persons (wà'eqñhëkàà 'someone or she drank it'). The neuter-locus is used for objects and animals as well as for some female persons (wà'gìq- ne'kàà 'it or she drank it'). Speakers thus have a choice of gender category when referring to women. Factors that enter into the choice include the dignity, size, gracefulness, and age of the referent, as well as how recently the speaker (Abbott 1984).

Sex-based grammatical distinctions appear in other areas of the grammars of some languages. In Mandan, speech addressed to men is distinguished from that to women by suffixes on verbs. Hollow (1970:456) reports that the indicative verb suffix -a' is used in addressing men, male animals, mixed groups, tobacco plants, rocks, and the Deity, whereas -ê' is used in addressing women, female animals, and plants except tobacco. The interrogative suffixes -a'ka and -ô'ra, and the imperative suffixes -ta and -maq, show similar distribution. In some cases, speech addressed by men is often distinguished from that by women. Murtha St. John (personal communication 1983), a Santee speaker, notes that she would respond to a ques- tion with the feminine demonstrative 'she'. In the phrase 'Yes, I drank that', while a man would respond with a masculine declarative: hël bûkâ-këdô. In commands, she would use a feminine imperative marker; she would
tell her grandson ḥa ʾen'qayeq: 'Don't do that!' where a man would say ḥe ʾqayeqin.(1)

Shape and Position

In some languages, entities are classified in terms of their shape or position. Many languages encode such features lexically with different existential verbs. Compact objects appear with verbs for 'sit', tall ones 'stand', and elongated ones, those with a greater horizontal dimension, 'lie'. In Tunic, for example, humans and four-legged animals may appear with all three existential verbs: ni 'sit', kāl rd 'stand', nā 'lie'.

Tunic (Haas 1941:10-11):
ta šaku, ʾanḏi There is the dog (in a sitting position).
ta šaku, kāl Pard There is the dog (in a standing position).
ta šaku, ṣiḏi There is the dog (in a lying position).

Small, dumby animals always appear with 'sit', and elongated animals with 'lie'.

ta ʾunuṯ kHz, ʾanḏi There is the bollfrog (The bollfrog is sitting.)
ta ʾunuṯ kHz, ʾanḏi There is the mosquito (sitting).
ta ʾunuṯ kHz, ʾanḏi There is the fish (lying).
ta ʾunuṯ kHz, ʾanḏi There is the alligator (lying).

Inanimate objects are classified according to their characteristic position.

Ye 'kho kā Pard There is a pine tree (standing).
ha ʾunuṯ kHz, ʾanḏi There was a town. ('A town standing.)

Abstract nouns are classified as horizontal.

bi mašak, la ḥon sa ḫaḵ, ṣar, ha ḫaḵin. 'Now there is one morning (lying) again (left for you to do).'

Shape and position are also encoded in the grammatical categories of some languages. In Yuchi, a language of Oklahoma, nouns are classified into animate and inanimate classes of lexical articles. (Wagner 1933:220-22.) Animant nouns, identified by the suffix -n, are further classified by internal suffixes into those referring to members of the Yuchi tribe versus all others, including other human beings, animals, and a few mythological beings such as the Sun and the Moon: gndl-nq 'the (Yuchi) man', gndl-wn-nq 'the man (a White man, Indian of another tribe, Black man), tala-nq 'the woman'. The word 'woman' refers to members of the Yuchi tribe, certain kinship relations are specified: cownd-n-ṣe-nq 'my (man's) sister'.

Nouns referring to inanimate objects are also further classified by their suffixed articles. There are three categories: fa 'objects with a vertical vertical dimension, such as standing poles, trees, high mountains, tall houses' (fa-ṯe 'the tree', wa-ṣu 'the house'); ḥe 'objects with a prevalently horizontal dimension, such as lakes, streams, roads, fields, logs lying on the ground' (wa-ṯe 'the log', ḥa-ṯe 'the field'); and ǧi 'objects of a roundish shape or of a dimension that is indifferent to the idea of vertical and horizontal, such as rocks, bushy trees, chairs, etc.' (t-ṯe 'the rock', ʾaawad- getpid 'the chair'). (Wagner 1933:221.) Abstract nouns appear in all three categories:

The same classificatory suffixes appear with demonstratives: ne-ṯi gndl-nq 'this (Yuchi) man', ne-ṯi gndl-wn-nq 'this girl (referring to a man's sister, etc.).', ne-ṯi wa-ṣu 'this tree', ne-ḏi zez-ze 'this field', ne-ḏi ǧi 'this rock'. The distinctions between inanimate and inanimate, Yuchi and non-Yuchi, and degrees of kinship are marked on the pronominal prefixes as well. Languages in the Dhegah branch of the Siouan family—Ohmah-Ponca, Kansa, Osage, and Quapaw—have also developed sets of definite articles with suffixes on nouns. The articles distinguish aninimate, number, shape or position, and movement. Boas and Swanton (1911:939-941) list the Ponca definite articles. Articles for inanimate objects include ke for horizontal objects, ke standing objects and collectives, and ke scattered objects. Articles for animate agents include aked for singular animates at rest and am for singular animates in motion or plural. Articles for animate patients include r for standing singulars, d for moving singulars, ma for moving plurals, ḫeke for sitting singulars, and ḫakul for sitting plurlals. The use of the articles can be seen in the lines below from a narrative told by a group of two, the speaker and the hearer. The inclusive plural -yg you and I refers to that group plus at least one other. Similar paternning can be seen in Lakota.

Nouns of the singular class, singulars or on verbs ṣi- 'you are weaving' (Broadbent 1964:48). Among several group of pronominal suffixes are the subject suffixes. Southern Sierra Miwok (Broadbent 1964:43)

singul ar

plur al

mahi 'we' (he, she, or they and I)

-or 'you sg. and ʾi- ʾi- ʾi- 'we' (you pl. and I)

-r 'you sg.' tokoy 'you pl.'

-e 'he, she, it'

The exclusive pronom -mah-i: 'we (he, she, or they and I) is formally the plural of the first person -ma-. The inclusive -or 'you sg. and I' patterns as a singular even though it refers to a group of two, the speaker and the hearer. The exclusive plural -or yg you and I refers to that group plus at least one other. Similar patterning can be seen in Lakota.

Indefinite or plural languages contain a special pronominal category for indefinite or unspecified referents. The Caddoan languages contain no basic third-person pronominal prefixes, but do contain a set of prefixes translated 'one', 'someone'. The examples below are from Caddo, a language of Oklahoma. Caddo (Chafe 1976:66)

ṣi-yibahwan 'I saw (lit.)

yibahwan 'you saw (lit.)

yibahwan 'you saw (lit.)

yibahwan 'one saw (lit.)

The indefinite pronom is used to represent a person the speaker has no interest in identifying, perhaps because the identity is irrelevant or unknown. It might be used where English speakers say 'somebody', as in: 'he's been fired' ('someone has fired him'). The Caddo indefinite category is used for other functions: the Chafe 1976:66 example, it can serve to keep reference straightforward. The central protagonist is typic-
verbs like the fourth one above. The alternation between 'do' and 'not do', which does not have a singular/plural number, but where some nouns have plural specific paucal counterparts to refer to just a few: 'sak:ax 'boy(s)', 'c-warad 'a few boys'; 'kja:ya 'girl(s)', 'yac:apx 'a few girls'.

Number is sometimes expressed as part of the meaning of the verb root. In many languages, one verb root is used to describe a particular action involving an individual, while a completely different root is used for a similar action by or toward a group. In Shasta, a verb based on the root -ar- is used if one person walks alone, but a verb based on a different root, -e-, is used for a group walking together. The root -ar- is used if a person walks alone, but the root -ar- is used if several sit together. The root -epa- describes the action of going out alone to camp, but the root -apsi- describes going out to camp together (Silver 1966:110-111). Walking alone and walking in a group are considered sufficiently different concepts to be given different labels, as are sitting alone and sitting in company, or camping alone and together.

Many languages contain optional grammatical devices for indicating number. In languages of the Chumash family, spoken along the central California coast, basic nouns do not distinguish number; the noun sik, for example, is transliterated as either 'house' or 'lice'. Plurality may be indicated if desired by reduplication. Part or all of the noun is repeated. The Bararele Chumash cited here comes from notebooks kept by the last speaker of the language, Mary Yee, as she worked with John Peabody Harrington.

Bararele Chumash (Yee 1966)

sik 'house'

kop 'toad'

pulakak 'redheaded woodpecker'

likikik (pl.)

likikik (pl.)

Reduplication appears more often in verbs to pluralize some aspect of the action, yielding an iterative (action composed of repeated small actions), a distributive (action here and there), or a progressive (ongoing action). (In the example below, the initial s- is the third-person object, he, she, or it.)

s-pi 'han 'it (the ball) bounced'

s-pi:ha 'it is bouncing'

s-wetolok 'he circled around'

s-wetotolok 'he keeps going around in circles'

s-new 'he danced'

s-new 'he is dancing'

Different verb stems show different patterns of reduplication; in many, the initial syllable is repeated, in some, a medial syllable, in others, the final syllable, and in still others, several syllables.

Reduplication is used for similar functions in many other languages.

Number is distinguished systematically in Chumash, as in many North American languages, in the pronominal affixes on verbs. Singular, dual, and plural are obligatorily specified with the Bararele pronominal prefixes.

k-i'p 'he' or 'she laughed and laughed'

k-i'p 'they (indefinite) cut it into small pieces'

k-i'p 'they applied'

s-iyp-pilapikulik 'they (pl.) keep arriving one by one'

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The verbal number markers are generally not agreement markers comparable to those of European languages. They quantify actions, not participants, although they may imply the involvement of multiple participants. Collective verbs in Shasta may be used with or without collective nouns, depending on what the speaker chooses to specify.

"is kwehbatik: 'An Indian is gathering.'
"is kwehbatik: 'Indians are gathering together.'
"io-oyet kwehbatik: 'Indians (a group) are gathering together.'

Collective and distributive markers may even cooccur within a verb, quantifying different aspects of the event.

kwitewi-ee-s? 'He worked' (lit. 'reached upward coll.)'
kwitewi-ee-k-ee-s? 'They (coll) worked (reached up), (coll.)'
kwitewi-irat-ee-s? 'He is leading them (coll.) around (coll.)'
kwitewi-irat-ee-s? 'They (coll) led them (coll.) around (coll.)'
kwitewi-irat-ee-s-s? 'They (coll) led them (coll.) around (distr.)'

Nominal number marking and verbal number marking have similar but not necessarily equivalent semantic effects. Nominal number markers quantify participants, while verbal number markers often quantify some aspect of events. Of course one may imply the other. A plural noun like 'strawberries' in 'I picked strawberries' can imply multiple pickings, and a collective verb like 'work as a group' can imply multiple workers. The nominal and verbal markers are not simply arbitrary formal alternatives; what one may specify, the other may only imply.

The Roles of Primary Participants: Core Case

The roles of the primary or core participants in events are indicated in various ways in languages. In English, subjects and direct objects are differentiated primarily by word order (subject-verb-object) and by the shapes of pronouns (I, we, we, you, they). In Russian and Latin, subjects and object roles are indicated by nominative and accusative case suffixes on nouns and distinct pronouns. In German, they are indicated by the form of determiners and pronouns. Similar variety and more can be found among North American languages. Both the kind of marking and the case categories distinguished vary from language to language.

NOMINATIVE/ACCUSATIVE SYSTEMS: Languages of the Utian family of California indicate core case in ways similar to that of Russian or Latin, with suffixes on nouns. Okrand (1977:144-161) describes the case system of Mutua, a language of the Costanoan branch of Utian formerly spoken around Mission San Juan Bautista south of San Francisco. As in many languages, subjects (nominative case) carry no suffixes.

Mutsun (Okrand 1977) yikan: yikan (v. 4th) spreads up my hand 'My hand is getting swollen.'

Objects are marked by an accusative case suffix -se.

karn takampi tere-se I bring meat-ACCUSATIVE 'I bring meat.'

In a large number of North American languages, the roles of the central participants are indicated by pronominal affixes on verbs. In the Chumash language, nouns carry no case marking; instead, subjects are specified by pronominal prefixes on the verb, and objects by pronominal suffixes.

Barbareño Chumash (Yee 1956)

k-ipt s-ipt-ii 'I said, spoke'

k-ipt s-ipt-ii 'You said, spoke'

k-ipt s-ipt-ii 'He, she, told him, her'

(Additional prefixes and suffixes indicate dual and plural subjects and objects.)

Because the verbs contain pronouns, they can constitute full grammatical sentences in themselves. Of course nouns may appear in sentences as well; however, Chumash nouns, unlike those in Mutsun, carry no case markers. In the Barbareño Chumash sentence below, the subject is -ničá 'coyote'.

hika s-ipt hi -ničá and then 3sg.say the coyote 'And then Coyote spoke.'

When 'coyote' is the object of a sentence, the noun has the same form.

cu k-upt-kwáhhi -ničá so that 1sg.escape-3sg the coyote 'How should I act so that I may escape Coyote?'

It is the pronouns on the verb that mark case roles. It is clear that Coyote is the subject of the first sentence from the third-person singular subject pronoun prefix s- 'he' on the verb 'speak'. Coyote is identified as the object of the second sentence by the third-person singular object pronoun suffix -ni 'him' on the verb 'escape'. If roles were reversed, and Coyote were escaping from me, only the verb would need to change: s-upt-kwáhhi: 'he-escape-me'.

AGENT-PATIENT SYSTEMS: Not all languages identify the roles of major participants in terms of subject and object categories. An alternative kind of case organization, particularly common among the polysynthetic languages of North America, categorizes major participants in terms of their semantic roles as agents or patients (Mithun 1991). Agent-patient case organization can be seen in the Muskogean languages, Iroquoian languages, Caddoan languages, Siouan languages, Pomoan languages, Yuchi, Tuscarora, Keresan, Yuchi, and Haiku, among others (see the grammatical sketches of Seneca, Wichita, Lakota, and Eastern Pomo, this vol.).

The pronominal affixes in Kosati follow an agent-patient pattern. One set of pronominal affixes represents agents, those participants who control actions, while another set represents patients, those not in control.

Kosati (Kimbrell 1991:58-70)

Agents

 parfait

Avi

'arrive there'

'1 in fut'

'1 tear it down'

'1 fall down'

'1 plow'

'1 feel a throbbing'

'1 take one thing'

'1 want, need (it)'

'1 gather'

'1 forget, 1 lost in the woods'

Transitivity has no effect on case marking. Agents of intransitive events like 'arrive' are expressed with the same form as agents of transitive like 'fall down'. Patients of intransitive states like 'fat' and intransitive events like 'fall down' are expressed with the same pronouns as those of transitive events like 'want' or 'burn'. The first sentence below is intransitive, the second transitive. The third persons are not represented by affixes in Kosati.

Kosati (Kimbrell 1991:231)

ličá-bani-t 3sg.patient-burn-pst 'I got burned.'

ničáhá - lkkac ličá-bani-t grease hot 3sg.patient-burn-pst 'The hot grease burned me.'

tragkat 3sg.patient-burn-pst 'I will take you up.'

A comparison of the sentences above shows that the absolutive and ergative categories do not correspond to the subject and object categories of languages like...
English. Some absolutes are translated with English subjects ('I'm about to run'), some with English objects ('I'm going to eat'). Intransitive verbs are generally translated with English subjects ('I will take you'), but so are many absolutes ('I'm alive'). The absolute and ergative categories do not correspond to the agent and patient categories of languages like Koasati, either. Some absolutes would be agents in such a system ('I'm about to run'), others patients ('And then you found me'). Intransitive verbs would be agents, but some would be patients in many systems ('I want it.')

The Tsimshian case system, like many ergative systems, is complex, involving further distinctions of present versus absent participants, common versus proper nouns, and tense, aspect, and mode.

**Direct-Inverse Systems** In some languages, pronominal affixes refer to coreferring participants to do not carry distinctions of case themselves. They specify only person and number. Case is carried by another affix within the verb. Systems of this type, called inverse, are well known among languages of the Algionian family and several others. The pattern is illustrated here with examples from Blackfoot, an Algionian language of Montana and Alberta (see also the grammatical clinics on verbs and case enclitics in Blackfoot: 2 (you) > (1, we) > proximate (he, she, they) > obliative (other).

**Multiple Core Case Marking** In some languages, core case roles are indicated only by case suffixes on noun phrases. In others, core case roles are indicated only on pronominal affixes in verbs. In some languages, case is marked on both nouns and predicates.

In such languages, both systems of case marking may follow the same pattern. In Coast Tsimshian both pronominal clinics on verbs and case enclitics with noun phrases follow an ergative-absolutive pattern. In other languages, different kinds of systems appear in different parts of the grammar. In Koasati pronominal affixes on verbs follow an agent-patient pattern, but case suffixes on nouns follow a nominative-accusative pattern: subjects are marked with the suffix -k, and objects with the suffix -n.

**Possession** Possessive relationships are indicated in many European languages by a genitive case marker or preposition on the noun phrase representing the possessor: *the whale's* bone, or the bone of *the whale*. In most North American languages, possessive relationships are marked on the noun referring to the possession.

Barabécho Chumash (Yee 1956) *he?* *z-sapaywil pasat* this its-bone whale *the whale's bone*
The possessive affixes often resemble some of the pronominal affixes on verbs. In Chumash, they match the pronominal prefixes referring to subjects. Chumashan possessed nouns usually appear with a demonstrative indicating the location of the object: *he?* 'this (near the speaker)', *ho?* 'that (removed from the speaker)', or *hu?* 'that (not visible, remote in time or space').

Barabécho Chumash (Yee 1956) *he?* *e-pu* *my hand* *he?* *a'akay* *my trap*
mother. I made a kite for my nephew), many North American languages contain special derived verbs for events directed to or done for someone. The grammatical patient, object, or absolute of these benefactive verbs is the beneficiary. In Natchez, the benefactive suffix -ni adds the meaning 'to, for':

Mary Haas, personal communication (1983)

- warfare: 'to tell, to come around for' to tell, to come around for'

- warfare: 'to take' to take

- warfare: 'your wings' under put us

- warfare: 'Put us under your wings.'

- warfare: 'OBUR CASE MARKERS VERKUS APPLICATIVE Benefactive, comitative, instrumental, and locative affixes within verbs, like those described above, are sometimes termed applicatives. Their functions are similar to those of dative, comitative, instrumental, and locative case markers on nouns, but they are not precisely equivalent. A benefactive verb does imply the involvement of a beneficiary, and a comitative verb the involvement of a companion. But nominal case markers portray relationships as attributes of the participants ('for my sister', 'with a friend', 'with a stick', 'to the bank'). Applicatives derive terms for kinds of activities that are more specific than those designated by the root alone ('tell-to', 'sing-with', 'make-with', 'put-in').

In some languages, applicatives may be highly productive, and in others less so, but they do not normally show the same ubiquity as inchoative case affixes on nouns. Not all verb roots in a language will normally have benefactive forms, only certain ones that describe activities conventionally done for someone's benefit. The existence of a benefactive verb meaning 'cook-for' is common, but languages seldom contain a benefactive verb meaning 'walk-for.' The existence of a comitative verb 'walk-in' in the company of 'is common, but not 'cook-in the company of'.

Applicatives have a grammatical effect that can be useful for discourse purposes. They alter the argument structure of verbs, casting a beneficiary, companion, instrument, or location as a core participant (object, patient, or absolute). The grammatical object of the Natchez verb 'tell-to' is the person told rather than the tale, the grammatical subject of the Natchez verb 'sing-with' is another singer rather than the song. Applicatives thus play a role in determining which participants will be cast as core grammatical arguments.

Adverbial Qualification

Many notions typically expressed by separate adverbs or adverbial phrases in most languages are marked by verbal affixes in some of the more polysynthetic languages of North America. Some of the most common adverbial categories that have been grammaticized are those relating to general location or direction and manner or medium.

- LOCATION: Direction and location are indicated by verbal affixes in many North American languages. Some languages mark a basic two-way distinction: 

- 'bither' or 'here' versus 'thither' or 'there' (e.g., Seneca). The difference between verbs meaning 'come' and 'go', 'bring and take', or 'throw here and throw away here' may be signaled entirely by the directional affix rather than the root.

A number of languages, many in northern California, contain more elaborate sets of directional affixes. Talmy (1972:40-41) describes the directional suffixes of Atsugewi, a Palahuan language. In addition to the general suffixes of 'bither' and 'thither', there are many more specific directional suffixes. Among these are -er (into a liquid), -s (into a fire), -s (with -in or -ik) 'into an aggregate (bushes, a crowd, a rubice)', -wam 'down into a gravel container (baskets, cupped hand, pocket, depression in the ground, lake basin)', -wum 'horizontally into an areal enclosure (corral, field, area occupied by a pool of water)', -isp (with -in or -ik) 'into a large volume enclosure in the ground (for pit for trapping deer)', -s (with -in or -ik) 'over the rim into a volunar enclosure (gopher hole, mouth)', -ks (with -in or -ik) 'into a corner (between wall and floor, between two walls and the floor), -mi (down onto the surface of or into the substance of the ground', -c (with -in or -ik) 'down onto the upper surface of or into the substance of a solid resting on the ground (top of a z刺 bump)', and -ik 'horizontally onto the lateral surface or into the substance of a solid resting on the ground (side of a tree trunk).'

Atsugewi (Talmy 1972:436)

- s (with -in or -ik) 'to be scratched, burned up'

- s (with -in or -ik) 'to put into the mouth' 'to shell acorns with the teeth'

Affixes of this type may be highly productive as in many Siouan languages, or less so, as in the Chumash languages, but they are derivational, combining with specific roots to form new lexical items that are subsequently learned, understood, and used as conceptually unitary stems.

Time: Tense and Aspect

Tense markers such as past, present, and future specify the time at which an event occurs with respect to the time of speaking or some other point of reference. A few North American languages have elaborate tense distinctions. Washoe, a language centered around Lake Tahoe in Nevada and adjacent California, contains a rich set of tense suffixes described in detail in Jacobsen (1964:589, 631-653). Several degrees of past tense are distinguished. The recent past suffix -te places the time of an event at an earlier point on the same day or during the preceding night. The intermediate past -ay places the time of an event at an earlier point on the same day or during the preceding night.
"indicates a time in the past earlier than the same day but not immediately past." The pluperfect -di in "past the event prior to that of another event in the past." The remembered past -gul indicates "a time in the distant past but still within the lifetime of the speaker." The past -gul is "in the distant past before the lifetime of the speaker." Several degrees of futurity are also distinguished. The suffix -hi can indicate immediate futurity. The near future -dir indicates the immediate future to a time perhaps an hour or so later," implying at least a short interva between the event. The intermediate future -ri marks an event that "is expected to take place in the future, not immediately but after the lapse of a short inerval of time." The distant future -gob "indicates an event futher in the future than the one indicated by the intermediate future suffix." A rare suffix -eol can preceed the intermediate past, the distant past, or the distant future, to indicate an even more remote time.

By contrast, a significant number of languages do not distinguish tense at all, although of course it is always possible to specify the time of occurrence with additional words like 'today' or 'long ago'. Another kind of temporal distinction is often well developed aspect. Aspectual distinctions describe the internal temporal consistency of events or states, often distinguishing reference to an event as a whole, including its inception, from reference to some portion of the event. English 'I ate', 'I was eating', and 'I used to eat' are all past tense, but they differ in aspect. 'I ate' represents a single whole event, complete with beginning and end, and no expressed internal structure. 'I was eating' captures a portion of the activity with an indication of its ongoing character. 'I used to eat' indicates a series of recurring actions. Aspectual categories in many languages are not considered from one language to the next in both nature and number. Acoma contains little overt indication of tense, but verb suffixes distinguish several aspects (Miller 1965:125-132). There are continuatives (suijul-i 'I am weeding'), repetitives ('kâma-sa 'it keeps on raining'), a habitual (kâwâdu-le 'he likes 'at would go after meat'), an intransitive (bâwâ mun-sai 'I started to remember things'), and a completive, that emphasizes the action that is finished (kâwâ-kdâ-dy 'I have it hidden').

In all languages, tense and aspect markers appear more commonly with verbs than with nouns, due to the dynamic character of events. Actions, expressed by verbs, typically show change over time, while entities, identified by nouns, show more stability. Still, in some North American languages temporal distinctions can be marked on nouns as well. Many languages contain a decessive or finalizing that the refevent is no longer alive. Jacobsen (1964:482-483) notes that the Wasco dejective, as in lânuw-antî 'deceased person, dead people', can have the added force of proficiency: gewântî 'dead coyote, damn coyote'. Washoe also contains a noun suffix with the meaning 'discarded': mokoge-ayî 'old shoe', humît-ayî 'old coat', cîs-husbandî, dêmînay-ayî 'garbage' (1964:384). Bosq (191b:485) notes places it "in the distant past before the lifetime of the speaker." Several degrees of futurity are also distinguished. The suffix -hi can indicate immediate futurity. The near future -dir indicates the immediate future to a time perhaps an hour or so later," implying at least a short interva between the event. The intermediate future -ri marks an event that "is expected to take place in the future, not immediately but after the lapse of a short inerval of time." The distant future -gob "indicates an event futher in the future than the one indicated by the intermediate future suffix." A rare suffix -eol can preceed the intermediate past, the distant past, or the distant future, to indicate an even more remote time.

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Iroquoian language of Ontario. When a customer in a hardware store asked for a hammer, the noun ‘hammer’ was the most important element of the message, and appeared first. The verb ‘I’m seeking it’, more predictable, followed.

Cayuga (Reginald Henry, personal communication 1980)

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‘I’m looking for a hammer. After the salesman had shown him several hammers, he chose one and asked its price. Here, the verb ‘it costs’ appears early, the main point of the utterance, while the noun ‘hammer’ appears last, as established information.

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Hence, it’s the only possibility that the only pig ‘eats the peeler.’

In the first line, ‘just the peelings’ appears first, a new entity and a focus of a concept. The verb of disliking, not unexpected given the question, appears last. In the second line, the first thing the pig eats ‘the peeler,’ the only new entity and again a focus of contrast. The verb ‘they eat them’ is new but not unexpected, given the discussion. ‘The peelings,’ just mentioned, is last.

Clause Combining

Patterns of clause combination, or the construction of compound and complex sentences, vary in intricacy across North America. In some languages, there is relatively little formal indication of syntactic links among related clauses. In the Iroquoian languages, every verb constitutes a complete, finite clause that can stand alone. Links between clauses may or may not be specified by particles. Intonation provides a significant indication of their relationships. Each of the Cayuga sentences below contains two clauses. In the first, the subject ‘it’ is the danger of the clauses, ‘he would go after wood’. In the second, the object ‘it’ of ‘I noticed it’ is the clause ‘it is dull.”