

The Value of Linguistic Diversity: Viewing Other Worlds through North American Indian Languages

When Europeans first arrived in North America, they found not just new kinds of plants and animals, but also mental worlds they could never have imagined. The languages they knew could not have prepared them to grasp the depth of the linguistic differences to be found in the Americas, nor their import. American languages presented new ways of delineating concepts from the flow of experience, of organizing them, and of combining them into more complex ideas.

The newcomers certainly did not become aware of all of the languages of North America at once. Probably the earliest written record of any North American language is a wordlist recorded from an Iroquoian group living on the St. Lawrence River near present Quebec City. These people, now known as the Laurentians, first met the French explorer Jacques Cartier and his crew in 1534. A word from their language, *Canada* 'village', has now become a placename recognized throughout the world. Soon afterward, from 1539 to 1543, Hernando de Soto traveled through the Southeast. In 1542 Juan Rodríguez Cabrillo landed on the California coast, and Martin Frobisher arrived on Baffin Island in the Arctic. But the French, Spanish, Dutch, English, Danes, Swedes, and Russians who came to the New World, and their descendants, continued to encounter new peoples in North America for over three centuries. Many California groups were still unknown to outsiders well into the nineteenth century. Nearly 300 distinct, mutually unintelligible languages are now known to have been spoken in North America at the time of first contact, and many more have disappeared with little trace.

The depth of this diversity, the radical and complex ways in which these languages differ from those of Europe and Asia and from each other, came to be appreciated even more gradually, a process that continues to this day. Many early explorers collected valuable vocabulary lists, but they were in no position to conduct detailed linguistic studies: they were seldom in one place for very long, were untrained for such work, and had other responsibilities and interests. The missionaries who succeeded them typically spent longer periods of time in native communities, and in many cases understood that the success of their endeavors would depend on their ability to communicate in the local language. Their work resulted in records of many languages, particularly translations of liturgical materials and dictionaries, and even some grammars. But as awareness of the linguistic diversity grew, so did the realization that languages were rapidly disappearing and should be documented without delay. In 1787 Thomas Jefferson sent out a call for the collection of vocabularies all over the continent. Lewis and Clarke took his questionnaire on their 1803-1806 expedition through the West. Unfortunately most of the vocabularies commissioned by Jefferson have been lost, but the enterprise continued. Over the eighteenth and nineteenth centuries techniques for collecting material were refined. In 1820 John Pickering, a Boston lawyer, devised a phonetic alphabet so that scribes might be better equipped to cope with unfamiliar sounds in a consistent way. Transcription conventions continued to be polished and were included in questionnaires or 'schedules' distributed to fieldworkers by the United States Bureau of Ethnology. The schedules consisted of detailed lists of vocabulary in a variety of domains along with some basic grammatical paradigms and sentences for translation.

The material collected on the schedules proved important for certain purposes, but already by the late nineteenth century it was clear that more needed to be done. The languages were spoken by people with cultures quite unlike those known to Europeans. The central role of language in culture was clearly recognized by those studying both, a fact that was to leave its mark on American scholarship. Franz Boas, probably the most important figure in the shaping of North American anthropology and linguistics, trained his students at Columbia University to focus on the collection of culturally interesting texts, then base their grammars and dictionaries on the speech represented in them. Boas realized, as did his students, particularly Edward Sapir, that many of the most interesting features that differentiate languages emerge only in natural, connected speech, and not in translations of isolated English words and sentences. Translations tend to reveal primarily the kinds of categories, distinctions, and patterns that the researcher is already expecting, particularly those present in the contact language that provides the models for translations. The grammars and grammatical sketches compiled by Boas, Sapir, and their students, in separate volumes and in the *Handbook of American Indian Languages* (Boas, 1911, 1922), show the remarkable leaps in insight possible when an understanding of grammatical systems is based on speech in use. As Boas himself noted, capturing natural speech, particularly conversation, at normal speed, with all of its prosodic modulation, is nearly impossible with pen and paper alone. Even so, early researchers left remarkable records. But since the mid-twentieth century, the general availability of tape recorders, video cameras, and computers has greatly expanded the kind of documentation that is possible, and, accordingly, the kinds of questions that can be addressed.

Boas also recognized the fact that all types of speech are not the same. In his introduction to the inaugural issue of the *International Journal of American Linguistics*, he urged the documentation of a variety of genres.

Up to this time too little attention has been paid to the variety of expression and to the careful preservation of diction. We have rather been interested in the preservation of fundamental forms. Fortunately, many of the recorded texts contain, at least to some extent, stereotyped conversation and other formulas, as well as poetical parts, which give a certain insight into certain stylistic peculiarities, although they can seldom be taken as examples of the spoken language . . . On the whole, however, the available material gives a one-sided presentation of linguistic data, because we have hardly any records of daily occurrences, every-day conversation, descriptions of industries, customs, and the like. (1917, p. 2)

Recognition of the extent and nature of the linguistic diversity in North America has had a significant effect on the development of the disciplines of anthropology, linguistics, and linguistic anthropology. For more than two centuries, scholarly work has been directed at uncovering order in the apparent chaos. One direction of inquiry has been genetic: untangling the origins of the languages and their relations to each other. Another has been typological: investigating whether the languages vary without limit, or fall into major types, perhaps definable in terms of some basic features from which other characteristics follow. A third has been the exploration of relations among language, thought, culture, and society.

1. The genetic picture

Near the end of the eighteenth century it was discovered that the histories of languages could be reconstructed by comparing their modern forms. When words from various languages of Europe and Asia were compared, recurring, systematic correspondences were found.

English	<i>thirst</i>	English	<i>mother</i>
Dutch	<i>dorst</i>	German	<i>Mutter</i>
German	<i>Durst</i>	Danish	<i>mor</i>
Danish	<i>tørst</i>	Old Irish	<i>máthir</i>
Gothic	<i>ga-thairsan</i>	Latin	<i>ma:ter</i>
Latin	<i>torreo:</i>	Greek	<i>mé:te:r</i>
Greek	<i>térsomai</i>	Armenian	<i>mayr</i>
Armenian	<i>t^haramim</i>	Lithuanian	<i>mótè</i>
Sanskrit	<i>tṛṣyati</i>	Sanskrit	<i>ma:tá:</i>

Similarities among words in these languages are too pervasive and systematic to be due to chance. It was realized that they must be inherited from a common ancestral language. All of the languages that have developed from the same parent language are said to be genetically related and to constitute a language family. The languages above belong to the Indo-European family. By comparing words in such languages, it is possible to reconstruct vocabulary from their common ancestor. The word for ‘thirst, dry out’ in Proto-Indo-European, the language of the Indo-Europeans, is reconstructed as **ters*. As the original Indo-European speech community fragmented, and subgroups went their separate ways, their languages evolved in different directions, yielding the differences we see above.

It was noticed that similarities could also be observed among groups of North American languages. The languages listed below, for example, share numerous resemblances, even though their speakers generally cannot understand one another.

	‘five’	‘room, house’
Mohawk	<i>wisk</i>	<i>kanónhsa’</i>
Oneida	<i>wisk</i>	<i>kanųhsa’</i>
Onondaga	<i>hwiks</i>	<i>kanóhsa:yę’</i>
Susquehannock	<i>wisck</i>	<i>onusse</i>
Cayuga	<i>hwis</i>	<i>kanóhso:t</i>
Seneca	<i>wis</i>	<i>kanóhso:t</i>
Laurentian	<i>ouyscon</i>	<i>canocha</i>
Huron	<i>ouyche</i>	<i>annonchia</i>
Wyandot	<i>wis</i>	<i>yanóhša’</i>
Tuscarora	<i>wisk</i>	<i>unéhsch</i>
Nottoway	<i>whisk</i>	<i>onushag</i>
Cherokee	<i>hi:ski</i>	<i>khanvsulv’i</i>

(Susquehannock, Laurentian, Huron, and Nottoway are no longer spoken. The forms given here were written by explorers and missionaries in earlier times, so the spelling differs more than the actual sounds. In the Laurentian and Huron forms, for example, the French wrote *ouy* to represent *wi*.) The more one compares these languages, the more systematic similarities one finds. All of these languages have developed from a common ancestral language and belong to the same language family, now called Iroquoian.

The collection and comparison of vocabularies culminated in a project undertaken by Major John Wesley Powell to produce an exhaustive genetic classification of the languages of North America. Powell established the Bureau of Ethnology in 1879, which subsequently became the Bureau of American Ethnology and ultimately the Smithsonian Institution. At the Bureau, Powell assembled a team of scholars to collect data, primarily vocabulary, and compare it. The result of the project was the 1891 *Indian Linguistic Families North of Mexico*, a classification of the languages into over 50 families, a scheme which stands, with minor revisions, to this day. Scholars continue to refine the classification and search for possible deeper relations among language families. Work also continues on reconstructing the ancestral languages, and on detecting what these reconstructed languages might tell us about the cultures of their speakers.

2. The vast linguistic diversity

Though the basic genetic relations among North American languages are now generally understood, the nature of the differences that distinguish the languages are still being discovered and appreciated. We know that the words of one language seldom correspond perfectly to those of another. In Mohawk, for example, an Iroquoian language now spoken in Quebec, Ontario, and New York State, the word *otsihkwa* is translated variously as English ‘fist’, ‘knot in a tree’, ‘doorknob’, ‘warclub’, ‘hockey puck’, ‘button’, ‘rhubarb’, ‘radish’, ‘turnip’, ‘carrot’, ‘sledge hammer’, ‘push button’, ‘pudding’, ‘pool ball’, ‘lump on the head’, and more. In Navajo, an Athabaskan language of the Southwest, the word *ásaa* is translated ‘pot’, ‘jar’, ‘bowl’, ‘bucket’, ‘kettle’, or ‘drum’. In Central Alaskan Yup’ik, an Eskimo-Aleut language of Alaska, the word *ella* is translated ‘outdoors’, ‘world’, ‘universe’, ‘sense’, and ‘awareness’. Do these facts mean that Mohawk, Navajo, and Yup’ik speakers are less discerning of detail than English speakers? Or perhaps, alternatively, that they are more capable of generalization?

If we look a bit further we find numerous examples of exactly the reverse: in many cases a single, general term in English has multiple translations in Mohawk, Navajo, or Yup’ik. There is no general term for ‘animal’ in Mohawk, for example; wild animals are referred to as *kário* and domestic animals as *katshé:nen* or *-nahskw-*. The ‘wild animal’ term cannot be possessed, but the ‘domestic animal’ terms typically are: *akitshé:nen*, ‘my livestock, my pet’, *wakenáhskwaien* ‘I have an animal, pet’.

Navajo is well known for its elaboration of vocabulary denoting kinds of actions and states. There is no general term for ‘toss’ in Navajo; for tossing a small, round object such as a stone, ball, loaf of bread, coin, or bottle, a verb based on the root *-lne* is used; for tossing something amorphous in texture such as a loose wad of wool or a bunch of hay, the root *-ljool* is used; for tossing wet, mushy matter like dough or a wet rag, the root *-lhléé*; for tossing a flat, flexible object such as a blanket, tablecloth, bedsheet, towel, or sheet of paper, the root *-’ah*; for tossing a slender, flexible object such as a string of beads, piece of rope, belt, chain, or paired objects such as socks, gloves, shoes,

scissors, or pliers, or a conglomerate such as a set of tools, the unspecified contents of one's pockets, the root *-Idéét*; for tossing a stiff, slender object such as a match, pencil, cigarette, stick of gum, broom, or rifle, or an animate object such as an animal or a doll, the root *-It'e*; for tossing something bulky, massive, and heavy in the form of a pack or load, such as a quiver of arrows, a medicine pouch, the root *-yí*; for tossing something in an open container such as a glass of water, bowl of soup, dish of food, bucket of sand, box of apples, or dirt in a shovel, the root *-Ikaad*; for a conglomeration of objects that can be readily visualized, such as several books, eggs, or boxes, the root *-nil*. These and additional examples of such richness are described in detail in the 1987 Navajo dictionary by Young and Morgan.

Yup'ik contains no general term for 'boot', but speakers know a large number of words for specific kinds of boots. In his 1984 dictionary, Jacobson lists *nanilnguarag* 'short skin boot', *amirak* 'fishskin boot', *ayagcuun* 'thigh-high boot with fur on the outside', *catquk* 'dyed sealskin boot', *ciuqalek* 'fancy dyed sealskin boot with dark fur over the shin', *iqertaq* 'sealskin boot with fur inside', *ivrarcuun* 'wading boot', *ivruciq* 'waterproof skin boot', *atallgaq* 'ankle-high skin boot', *kameksak* 'ankle-high skin boot, house slipper', *qaliruaq* 'ankle-high skin boot for dress wear', *piluguk* 'skin boot', and both *cap'akiq* and *sap'akiq* for 'manufactured boot or shoe'. Additional terms are used in individual dialects.

Many words in these languages are neither more general nor more specific than their English counterparts, but simply show different extensions of meaning and use. The Mohawk noun root *-nahskw-* 'domestic animal' mentioned above is also used for 'captive', 'slave', and even, on occasion, 'employee'. The Navajo verb stem *-Ine* for tossing small, compact objects is also used for dropping, pounding, and chopping, all actions causing small objects to move swiftly through the air. The Yup'ik noun *qaliruaq* 'ankle-high skin boot for dress wear' is also used for 'slipper' and 'sock'. Of course the words of a language evoke for their speakers not just logical denotations, but myriad subtle connotations as well, associated meanings that emerge from the contexts in which they have been used and that color future patterns of use.

A word or stem in one language may have no single lexical counterpart in another at all; the only translation might be a multi-word explanation. The Mohawk verb stem *-ont* might be translated 'put something into the oven'. The Navajo verb stem *-tsqoz* is translated by Young and Morgan 'for something that has been previously inflated or swollen to become flat and wrinkled upon deflation, as a car tire that loses its air'. The Yup'ik verb stem *mege-* is translated by Jacobson 'to not want to go back to one's undesirable former living situation'.

The discovery of each new language suggests in novel ways that the world is not composed of a single set of inherent concepts, universally observable by all human beings. Certain kinds of terms do recur in language after language, because there are certain circumstances that are universal or nearly universal to the human condition. But even these may hold some surprises. Mohawk does not contain a single, unitary word for 'water'. To refer to drinking water, or water added to soup, Mohawk speakers use the term *ohné:kanos*, a complex expression meaning literally 'cool liquid'. To mention water as a location, as when a stone is in a puddle or river (but not just a cup of water), a different complex word is used: *awèn:ke*. There is, however, a simplex verb root 'be in water': *-o-*.

Sometimes the elaboration of vocabulary in a particular domain correlates in an obvious way with the importance of that domain in the life of speakers. English-speaking carpenters, for example, have special vocabulary referring to their tools, techniques, measurements, qualities of wood, and other aspects of their work. The proliferation of terms for ‘boots’ in Yup’ik comes as no surprise. Yup’ik also has rich vocabulary for kinds of seals. There are not only distinct words for different species of seals, such as *maklak* ‘bearded seal’, but also terms for particular species at different times of life, such as *amirkaq* ‘young bearded seal’, *maklaaq* ‘bearded seal in its first year’, *maklassuk* ‘bearded seal in its second year’, and *qalriq* ‘large male bearded seal giving its mating call’. There are also terms for seals in different circumstances, such as *ugtaq* ‘seal on an ice-floe’ and *puga* ‘surfaced seal’.

But differences among languages go far deeper than vocabulary. It is often stated that anything that can be expressed in one language can ultimately be expressed in any other. Yet there are differences in what speakers of different languages tend to say and what they choose to say. Languages differ both in what they allow their speakers to express quickly and easily, and what they require their speakers to specify.

Many ideas expressed in a single word in certain North American languages can be expressed only in long phrases or full sentences in languages like English.

- (1) Mohawk: Watshenní:ne Sawyer, speaker p.c.
 - a. *Tewaka'nikónnhare'* ‘I’m worried about it.’
 - b. *Aetewatena'tarón:ni'* ‘We should make ourselves some cornbread.’

- (2) Navajo: Dolly Hermes Soulé, speaker p.c.
 - a. *Shaajinítyá* ‘He had come to visit me.’
 - b. *Athanéít'aash* ‘We’ll get together now and then.’

- (3) Central Alaskan Yup’ik: Elena Charles, speaker p.c.
 - a. *Uitaqaqerciqutenqaa* ‘Will you stay for a short while?’
 - b. *Atakenritcaaqaat* ‘He is not actually their natural father.’

When we see such long words, we know that they are likely to be built up of smaller elements, called *morphemes*, each contributing a meaning of its own. The elements of the words above can be seen below. The first line of each example shows the word essentially as spoken. The second line shows the individual meaningful parts (morphemes). The third line provides a gloss for each morpheme, that is, its approximate meaning or grammatical function. The fourth line provides a literal translation of each morpheme. The fifth line gives a free translation of the word as a whole.

- (1) Mohawk (Iroquoian family, Quebec): Watshenní:ne Sawyer, speaker
 - a. *Aetewatena'tarón:ni'*
 a-et-wa-ate-na'tar-onni-'
 OPTATIVE-1.INCLUSIVE.AGENT-PLURAL-REFLEXIVE-bread-make-BENEFACTIVE.PRF
 should-you.all.and.I-self-bread-make-for
 ‘We should make ourselves some cornbread.’

- b. *Tewake'nikónhrhare'*
 te-wak-'nikonhr-har-'
 DUPLICATIVE-1.SG.PATIENT-mind-hang-STATIVE
 change-me-mind-hang-ing
 'It is hanging up my mind' = 'I'm worried about it.'
- (2) Navajo (Athabaskan family, Arizona): Dolly Hermes Soulé, speaker
- a. *Shaajiníyá*
 sh-aa-ji-níi-yá
 1.SG-to-4.SG.SUBJECT-TERMINATIVE-one.walk.PERFECTIVE.ASPECT
 me-to-he-to.point-went
 'He had come to visit me.'
- b. *Athanéít'aash*
 a-ł-ha-ná-iid-'aash
 RECIPROCAL-with-SERIATIVE-around-1.DUAL.SUBJECT-two.walk.PROGRESSIVE
 each.other-with-now.and.then-around-we.two-two.walking
 'We'll get together now and then.'
- (3) Yup'ik (Eskimo-Aleut family, Alaska): Elena Charles, speaker
- a. *Uitaqaqerciqutenqaa*
 uita-qaqer-ciq-u-ten=qaa
 stay-briefly-FUTURE-INDICATIVE.INTRANSITIVE-2.SG=INTERROGATIVE
 stay-briefly-will-x-you=?
 'Will you stay for a short while?'
- b. *Atakenritcaaqaat*
 ata-ke-nrite-yaaqe-a-at
 father-have.as.own-NEGATIVE-actually-INDICATIVE.TRANSITIVE-3.PL/3.SG
 father-have.as.own-not-actually-x-they/him
 'He is not actually their natural father.'

One might wonder whether these are actually single words. Several considerations indicate that they are. Most important are the intuitions of speakers. When asked to repeat utterances word-by-word, they pronounce sequences like those above as single units, whether or not they have ever written or read their languages. For the most part, speakers are not conscious of the identity of the individual components of words (unless of course they are trained linguists), because these components, or morphemes, do not occur in isolation. They would not usually be able to isolate the element which means 'mind' in (1)a above, or 'actually' in (3)b, though they often do know that these elements of meaning are contained in the word, and manipulate the structures with dazzling skill to create new words.

Structures like the Mohawk *Aetewatena'tarón:ni* are actually not exact equivalents of English translations like 'We should make ourselves some cornbread'. They offer their speakers choices that are different from those offered by English. In the Mohawk word, the notion 'should' is expressed by the prefix *a-*, a piece of the word that cannot occur by itself. The notion 'we' is expressed by the prefix *-etewa-*, another element that cannot occur by itself and would not even be recognized by speakers in isolation. The bread is expressed in the morpheme *-na'tar-*, again a piece of a word that never occurs by itself. But each of these ideas can also be expressed by full, separate words in Mohawk. For 'should' one can also use the full verb *enwá:ton* 'it is necessary'. There is an independent pronoun *ì:'i* that means 'I' or 'we'. The language also contains an independent word for 'bread', *kanà:taro*. Why would languages preserve multiple ways of expressing the same idea? The answer is that these modes of expression are not used in the same way. Speakers choose to express a particular thought in one way or another according to their purpose at the time of speech. Essentially, they select independent words to focus attention on or highlight particularly pertinent information:

ì:'i aetewatena'tarón:ni 'We should make ourselves some bread'.

Of course such difference in patterns of usage emerge fully only when speakers are speaking naturally, and their messages are embedded in larger linguistic and extra-linguistic contexts.

The Mohawk, Navajo, and Yup'ik words above also differ from their English translations in the specific distinctions speakers make. In the Mohawk *Aetewatena'tarón:ni* 'We should make ourselves some cornbread', the prefix *-etewa-* does not simply mean 'we'. It specifies that there are three or more of us. If there were only two, a dual pronominal prefix *-eteni-* would have been used instead. Both pronominal prefixes *-etewa-* and *-eteni-* indicate something else not specified in the English 'we'. They are termed *inclusive* pronouns, because they specify that the hearer is included ('you and I'). An *exclusive* pronoun would have been used if the hearer were excluded ('they and I'). The pronominal prefix *-etewa-* makes still another distinction not indicated in the English 'we'. It is a grammatical *agent* pronoun, used to specify that we will be actively instigating and controlling the process. Grammatical *patient* pronouns are used in Mohawk for actions beyond our control, such as shivering or sleeping. The effect of the choice between grammatical agent and patient pronouns can be seen by comparing two verbs built on a compound stem seen earlier, *-'nikonhr-aksen*, literally *-mind-be.bad*. With an agent pronoun, the verb is *tewa'nikonhráksen* 'we are evil-minded'. With a patient pronoun, it is *ionkhi'nikonhráksen* 'we are sad'. As we can see, then, there is actually no exact Mohawk equivalent to English 'we': Mohawk speakers must make all of the above distinctions in order to speak at all.

In the Navajo example in (2)a, *Shaajinítyá* 'He had come to visit me', the subject 'he' is expressed in a pronominal prefix *ji-*. Unlike its English (or Mohawk) counterpart, the Navajo *ji-* does not specify masculine gender. The same pronoun would be used for a woman. It does show another distinction, however. It means literally 'someone' or 'people'. It was used here by the speaker, Mrs. Soulé, as a token of respect because she was referring to her father. Furthermore, this pronominal prefix did not actually specify that just one person came: Mrs. Soulé would have used the same prefix to refer to both of

her parents together. It is still clear from this word that only one person came, however. This is because the verb is built on the root *-yá* ‘for one person to go’. An entirely different verb root would be used for two people walking somewhere together: *-’áázh*. Walking alone, walking in pairs, and walking in a larger group, are portrayed in Navajo as different kinds of actions, worthy of different labels.

As can be seen from these examples, different languages allow speakers to specify different things with ease. We can certainly distinguish inclusive from exclusive first person in English if we wish: ‘You and I should make ourselves some cornbread’ or ‘They and I should make ourselves some cornbread’. We can distinguish two from more than two: ‘We two will get together now and then’ or ‘We all will get together now and then.’ But we generally do not, because English does not require us to and it is easier not to. Mohawk speakers always do, because they must in order to speak grammatically. Languages may not limit what their speakers can say, but they can differ in what they require, which can ultimately affect what their speakers tend to say, and, in turn, what they tend to hear.

Even where languages do not require their speakers to make certain distinctions, they may facilitate them. If languages are compared only through the ways in which their speakers translate English sentences, many of these more subtle differences do not emerge. In many North American languages, for example, speakers routinely specify the source and reliability of the information they pass on. As George Charles, a Yup’ik speaker, was describing the adventures of two hunters, he made the remark in (4). In English this information might have been rendered ‘and they caught a small bird’. The Yup’ik contains a bit more.

(4) Yup’ik: George Charles, speaker p.c.

yaqulcurmek-llu-gguq,
yaqulek-cuar-mek=llu=gguq
 bird-DIMINUTIVE-ABLATIVE.SG=also=HEARSAY
 and a small bird, they say
 ‘and, it seems,

<i>pitellinilutek</i>	<i>taukuk</i>	...
pi-te- <u>llini</u> -lu-tek	tauku-k	
thing-catch- <u>apparently</u> -SUBORDINATIVE-3.DUAL	that.RESTRICTIVE-DUAL	
they two apparently caught game	those two	
those fellows apparently caught a small bird.’		

Because he was told about this event by someone else, Mr. Charles included the hearsay ending *=gguq* ‘they say’ after the first word of the clause. Furthermore, since he did not witness the event directly, he qualified the verb ‘they caught game’ with the suffix *-llini* ‘apparently’. Such attention to the source and certainty of information can be seen in a number of North American communities. Hearsay markers, specifying that the information came from another person, are very common. Many languages contain additional markers, indicating, for example, direct personal witness, auditory evidence,

general knowledge, inference, speculation, and more. Such markers are termed *evidentials*.

The brief passage in (4) illustrates another set of distinctions that pervade Yup'ik speech but are barely reflected in English. The demonstrative pronoun *taukuk* 'those' specifies that the hunters were not immediately adjacent to the speaker and that they were two in number (with the dual suffix *-k*); it also indicates that they were stationary, localized in one spot, and visible. The Yup'ik demonstrative system encodes an elaborate set of distinctions, beautifully described by Jacobson (1984, pp. 653-662). Yup'ik terms corresponding to English *this, that, these, those* distinguish not only sets of one, two, and three or more entities, and those that are near the speaker from those further away, but also entities that are up above, upslope, down below, downriver or toward an exit, inside or upriver, outside, over something, or across something. Crosscutting all of these categories is another distinction among what are termed *restricted, extended, and obscured* entities and areas. Restricted demonstratives are used for persons, objects, or areas that are in sight and are restricted in size and range of motion: those that can be viewed fully in a single glance. They are used to pinpoint specific locations: 'right here', 'right there'. Extended demonstratives, by contrast, refer to persons, objects, or areas that are in sight and are longer than they are high or wide, those that cover a broad expanse, or those moving from one place to another: entities that require shifting views to see. They are also used for general, vague areas: 'around here', 'somewhere around there'. Obscured demonstratives refer to entities or areas that are not clearly perceptible.

3. Implications of the differences

The differences in vocabulary and grammar we have seen here are only small samples of the kinds of differences to be discovered among languages. Such discoveries have been a continuing source of wonder to anthropologists and linguists, and have raised intriguing questions about potential relationships among language and the thoughts and lives of speakers. For many scholars, these questions have provided the primary stimulus for the study of languages: language is seen as a key to the mind. While we may not be able to observe mental categories and structures directly, it has been hoped that the categories and structures observable in languages might provide some reflection of them, revealing both universal human cognitive structures and areas of possible variation across cultures. Other scholars, concerned with academic rigor, have deemed the investigation of relations among language, thought, and culture inherently unscientific and consequently unworthy of study. Since thought is not directly observable, it is impossible to demonstrate correlations between mental and linguistic structures. Even if correlations could be shown, it would be impossible to establish the directionality of causation. If we find differences among languages, can we conclude that these differences shape the thoughts of their speakers, or that differences in thought and culture have shaped the languages?

These issues remain controversial today, with opinions to some extent a matter of personal taste, to some extent a matter of academic discipline. Some see the primary goal of the study of language as uncovering fundamental, universal principles common to all languages, principles that might help us define the essence of being human. For such scholars, differences among languages are generally viewed as minor and accidental, of little academic interest. For others, the differences are what make the study of languages

enlightening and worthwhile. In his introduction to *Linguistic Anthropology: A Reader*, Duranti provides a fine discussion of the kinds of inferences that have been drawn from the differences to be found among languages.

One possible inference from these observations on linguistic diversity was that languages are arbitrary systems and one cannot predict how they will classify the world (linguistic relativism). Another inference was that languages would develop distinctions and categories that are needed to deal with the reality surrounding the people who speak them (linguistic functionalism). A third inference was that the different conceptual systems represented in different languages would direct their speakers to pay attention to different aspects of reality, hence, language could condition thinking (linguistic relativity). (2001, p. 11)

These inferences are certainly not incompatible; they are held to varying degrees by substantial proportions of anthropologists, linguists, and especially linguistic anthropologists. As progress has been made in our understanding of the forces that shape the development of languages, it has become possible to examine such issues more productively.

Both vocabulary and grammar can be observed to develop through certain recurring processes. In some cases we can still see the resources used by speakers to create the vocabulary they have needed. The Yup'ik term *amirkaq* 'young bearded seal', for example, was built on the noun *amiq* 'pelt, skin' with the suffix *-kaq* 'raw material for, future', a combination meaning literally 'raw material for a pelt'. The term *qalriq* 'large male bearded seal giving its mating call' was derived from the verb *qalrir-* 'to cry out, shriek'. The term *ugtaq* 'seal on an ice-floe' was derived from the verb *ugte-* 'to climb up onto the top of something'. *Puga* 'surfaced seal' was created from the verb *puge-* 'come to the surface, emerging halfway'. All of these words, *amirkaq*, *qalriq*, *ugtaq*, and *puga* now have lives of their own; they are not simply descriptions, but labels in their own right, much like English *screwdriver*. Often, of course, the resources originally used by speakers to create terms are barely discernible after some time has passed. The terms *maklaaq* 'bearded seal in its first year' and *maklassuk* 'bearded seal in its second year' were apparently derived from the noun *maklak* 'bearded seal', but the suffixes are no longer identifiable. The origins of many more words, including the basic *maklak* 'bearded seal', are completely lost in the shadows of time: they are now simply unanalyzable units.

New words can be brought into the language as needed in other ways as well. Some terms are created by extending the original meaning of a word to new uses, often metaphorically or metonymically. The Mohawk verb root *-ont* 'put into the oven' originally meant 'attach at one end', a meaning that it also retains today. At a certain point it came to be used for attaching a pot to a hook or other support over the fire. With repeated use, it took on the added meaning 'put over the fire'. When ovens became a part of daily life, the verb was extended further to refer to putting food into the oven to bake. The Yup'ik noun *teq* is used for both 'anus' and 'sea anemone'. Apparently one took its name from its resemblance to the other. The noun *teru* is used for both 'foot of bed or bedding area' and 'bed partner who sleeps with his body heading in the opposite or perpendicular direction'. The noun *tepa* is used for 'odor', 'aroma', and 'aged fish head'.

Sometimes new words are acquired from other languages. North American communities have varied in their receptiveness to outside influences. In some, there is strong resistance to the adoption of foreign terms, while in others, words from other languages are pervasive. In some areas there was already a long tradition of multilingualism well before Europeans arrived, sometimes associated with extensive intermarriage among small communities, sometimes associated with trade. Yup'ik, for example, contains identifiable words from a number of neighboring languages (Jakobson 1984:681-9). The Yup'ik *caguyaq* 'conical wooden hat' comes from Aleut *chaxudaḡ* 'visor'; *nuuniq* 'porcupine' comes from Koyukon Athabaskan *noona*; *tupiq'uyaq* 'tent' comes from Inupiaq *tupiq*. Terms for introduced items or concepts are often borrowed from the languages of those who bring the items or concepts. The Mohawk spoken in Quebec contains some nouns from French, such as *timotón* 'sheep' (from *des moutons*), *rasós* 'gravy' (from *la sauce*), and *terentsó* 'quarter' (from *trente sous*). Navajo contains some nouns from Spanish, such as *béégashii* 'cattle' (from *vacas*), *béeso* 'money' (from *peso*), and *damóq* 'Sunday' (from *domingo*); Yup'ik contains nouns from Russian, such as *kass'aq* 'Whiteman, priest' (from *kazák* Cossack), *angel* 'angel' (from Russian *ángel*), and *kuuvviaq* 'coffee' (from *kófe*). The borrowed terms in a language can tell us not only who speakers have interacted with, but also something of the nature of their interaction.

The words in a language provide a record of the concepts speakers have considered nameworthy. They can also indicate how speakers have related these concepts logically to others. Mohawk contains many verb stems formed by noun-verb compounding, also called noun incorporation. The verb stem meaning 'to cook', for example, is actually a compound, *-khw-onni*, literally 'meal-make'. The verb 'to sing' is also a compound, *-renn-ot*, literally 'song-stand', that is 'to stand up a song'. A variety of noun stems appear in such compounds, but a substantial number of Mohawk compound verbs contain one of three noun roots -'nikonhr- 'mind', -ia't- 'body', or -rihw- 'idea'.

Verbs incorporating the noun -'nikonhr- 'mind' generally denote events and states that affect people mentally.

(5) Mohawk verbs with incorporated -'nikonhr- 'mind'

-'nikonhr-aksen	'mind-be.bad'	=	'be sad'
-'nikonhr-iió	'mind-be.good'	=	'be patient'
-'nikonhr-o'kt	'mind-run.out'	=	'give up'
-'nikonhr-ahnirat	'mind-strengthen'	=	'encourage'
-'nikonhr-otako	'mind-unstand'	=	'tempt'
-'nikonhr-aienta'	'mind-receive'	=	'understand'
-'nikonhr-atsha'ni	'mind-fear'	=	'be brave'
-'nikonhr-atsi'io	'mind-weak'	=	'be cowardly'
-'nikonhr-en'	'mind-fall'	=	'be depressed'

Verbs incorporating the noun -ia't- 'body' generally denote events and states that affect animate beings physically.

(6) Mohawk verbs with incorporated *-ia't-* 'body'

<i>-ia't-ata'</i>	'body-put.in'	=	'bury someone'
<i>-ia't-enhawi</i>	'body-carry'	=	'carry someone'
<i>-ia't-ahset</i>	'body-hide'	=	'hide someone'
<i>-ia't-ohseronkw-</i>	'body-caress'	=	'caress someone'
<i>-ia't-ishonhkw</i>	'body-shake'	=	'shiver'
<i>-ia't-aken</i>	'body-see'	=	'be visible'
<i>-ia't-ienen'</i>	'body-fall'	=	'fall down'
<i>-ia't-ionni</i>	'body-extend'	=	'be stretched out'
<i>-ia't-itahkhe'</i>	'body-move'	=	'ride'
<i>-ia't-ahton</i>	'body-disappear'	=	'get lost'

Some verbs that began as descriptions of physical effects of events or states on people have come to be used metaphorically. The verb *-ia't-ahton* 'body-disappear', for example, with middle voice *-at-* 'self', means 'get lost', but the same verb is also used if a person is not following a discussion or becomes confused.

Verbs containing the incorporated noun *-rihw-* 'idea' often denote abstract events.

(7) Mohawk verbs with incorporated *-rihw-* 'idea'

<i>-rihw-ahnirat</i>	'idea-tighten'	=	'prove'
<i>-rihw-isak</i>	'idea-seek'	=	'investigate'
<i>-rihw-atiront</i>	'idea-stretch'	=	'discuss' (with DUPLICATIVE)
<i>-rihw-atihentho</i>	'idea-pull'	=	'recall, remember'
<i>-rihw-isa'</i>	'idea-finish'	=	'decide, promise'
<i>-rihw-aketsko</i>	'idea-raise'	=	'bring up (for discussion)'
<i>-rihw-anonianiht</i>	'idea-overdo'	=	'exaggerate'
<i>-rihw-onni</i>	'matter-make'	=	'cause'
<i>-rihw-atorat</i>	'news-hunt'	=	'gossip'

Like other word-formation processes, incorporation allows speakers to create terms for specific expressive needs. These terms are vocabulary items in their own right, with specific meanings associated with the functions for which they were created and the circumstances in which they are used. The meaning may not be precisely equivalent to those of their parts. This noun *-rihw-* has developed a range of abstract meanings, including not only 'idea' but also 'matter, affair, cause, news, word', and more, depending on the compound in which it occurs. The stem *-rihw-atorat*., literally 'idea-hunt' is used specifically to describe one who is a gossip, that is, always looking for news.

The lists of verbs above constitute only a small sample of the verbs in the language created by incorporating nouns for 'mind', 'body', and 'idea'. This process has left its mark on a significant portion of the vocabulary of the language: it has resulted in an explicit classification of many events and states into those with mental, physical, and abstract effects.

All of these means of developing vocabulary for new concepts, deriving new words, extending old words to new uses, and adopting terminology from other languages, illustrate the fact that languages are adaptable to the needs of their speakers. It is easy to see the cultural foundation of the Yup'ik proliferation of seal and boot terms, and the processes which underlie its development. As we would expect, there is similar richness in terms for kinds of fish and for hunting, trapping, and fishing techniques and equipment. The same processes underlie the development of lexical elaboration in other, more abstract domains. Speakers create vocabulary to name concepts they recognize as noteworthy and want to discuss. The new creations gain a place in the language only through use.

Grammatical distinctions and categories develop in languages through somewhat similar processes. Distinctions expressed the most often by speakers eventually come to be generalized. With repeated use comes abbreviation or erosion of form. We can see such erosion in progress with the English future markers. The originally separate, full verb *will* is now generally reduced in natural speech to just a slight *l* at the end of pronouns and nouns: *I'll go*. The originally separate phrase *be going to*, as in *I am going to eat*, has lost its concrete sense of travelling by foot to another location for a particular activity, to indicate simply an impending situation: *I am going to be hungry*. With the routinization has come erosion of the form: *I'mna eat*. Such processes, sometimes referred to as *grammaticalization*, may take place gradually over centuries, but in some cases we can still see their traces even in North American languages. Among the many grammatical morphemes of Mohawk is an instrumental suffix *-hkw* 'with'. The verb root *-hiaton*, for example, means 'write'. If the instrumental suffix is added to this root, a new verb stem is formed meaning 'write with'

(8) Mohawk instrumental suffix *-hkw*- 'with'

khiá:tonhs

k-hiaton-hs

1.SG.AGENT-write-IMPERFECTIVE

'I write (it)'

khiatónhkhwa'

k-hiaton-hkw-ha'

1.SG.AGENT-write-INSTRUMENTAL-IMPERFECTIVE

'I write with it.'

The instrumental suffix *-hkw* is pervasive in Mohawk. It is used to form words for objects based on verbal descriptions of their uses.

(9) Mohawk instrumental *-hkw*- in use

iehiatónhkhwa'

'one writes with it'

= 'pen, pencil'

iontekhwakon'onhstákhwa'

'one makes food tasty with it'

= 'ketchup'

ienonhsohare'tákhwa'

'one floor washes with it'

= 'mop'

ienon'tawerontákhwa'

'one pours milk with it'

= 'milk pitcher'

<i>ietsi 'tsaráhkhwa'</i>	'one puts flowers in with it'	=	'vase'
<i>ionnitskaráhkhwa'</i>	'one fixes a place to lie down with it'	=	'sheets'
<i>iontenawirohare 'táhkhwa'</i>	'one tooth washes with it'	=	'toothbrush'
<i>iontenonhsa 'tariha 'táhkhwa'</i>	'one heats the house with it'	=	'heater'
<i>iontkahri 'táhkhwa'</i>	'one plays with it'	=	'toy'
<i>iontkonhsohare 'táhkhwa'</i>	'one face washes with it'	=	'face cloth'
<i>teiehtharáhkhwa'</i>	'one talks with it'	=	'telephone'
<i>teionrahsi 'tahráhkhwa'</i>	'one sets one's feet up with it'	=	'footstool'
<i>iehwistaráhkhwa'</i>	'one inserts money with it'	=	'wallet'
<i>tehatitstenhrotáhkhwa'</i>	'they stand stones with it'	=	'cement'
<i>iakehiahráhkhwa'</i>	'one remembers with it'	=	'souvenir'

The same suffix appears in names of places with identifiable functions, usually preceded by the particle *tsi* 'at, where'

(10) Mohawk instrumental *-hkw-* in names for places

<i>tsi ionterennaiéntáhkhwa'</i>	'at one lays down prayers/songs with it' = 'the place one prays with'	=	'church'
<i>tsi ieiontskahónhkhwa'</i>	'the place one dines with'	=	'restaurant'
<i>tsi iehwistaiéntáhkhwa'</i>	'the place one lays money with'	=	'bank'
<i>tsi teionttsihkwa 'ekstáhkhwa'</i>	'the place puck strikes with, one uses to play hockey'	=	'arena'
<i>tsi ietsenhaiéntáhkhwa'</i>	'the place one lays the fire with, holds council'	=	'council office'
<i>tsi iakenheion 'taiéntáhkhwa'</i>	'the place one lays the dead with'	=	'hospital'
<i>tsi iontatia 'tahráhkhwa'</i>	'the place one lays bodies with'	=	'funeral home'

We can still discern the origin of the instrumental suffix *-hkw*. It has developed from a verb root meaning 'pick up' which has survived into the modern language. (The duplicative prefix *te-* below marks the change of position of the object lifted.)

(10) Origin of the Mohawk instrumental suffix

tekéhkwa
te-ke-hkw-ha'
DUPLICATIVE-1.SG.AGENT-pick.up-IMPERFECTIVE
'I pick it up, lift it.'

It is easy to see how the verb root evolved into an instrumental suffix. People typically pick up an instrument before using it. Such statements as 'He picked up the knife and cut' are common. From such a statement it is easy to infer that the knife was the instrument of the cutting. In languages with extensive compounding, speakers form compound verbs for such recurring events: 'pick.up-cut' or in the case of Mohawk, 'cut-pick.up'. At an earlier stage in its development, Mohawk allowed compounding of this type. The compounding was the first step in the development of the verbal suffixes.

Navajo has some relatively young verbal prefixes whose origins in full words can still be traced as well. The prefix 'a'á- marks action into a hole or burrow. (The second syllable is automatically lengthened before the final syllable of verbs.)

(11) Navajo prefix 'a'á- 'into a hole'

<u>'a'áá-tłizh</u>	'I fell <u>into a hole</u> '	(<i>yítłizh</i> 'I fell down')
<u>'a'áá-shna</u>	'I crawled <u>into a hole</u> '	
<u>'a'áá-mááz</u>	'I rolled <u>into a hole</u> '	
<u>'a'áá-lgo</u>	'I pushed him <u>into a hole</u> '	
<u>'a'áá-łmááz</u>	'I rolled it <u>into a hole</u> '	
<u>'a'áá-lwod</u>	'It ran <u>into a hole</u> '	

Young and Morgan trace this prefix to the word 'a'áán 'hole, burrow', which still survives in the modern language as a noun. Another prefix *naa-*, indicates that an event or state pertains to war or an enemy. This prefix is traced to the noun *anaa* 'war'. The prefix *łe-* 'into the ashes' is traced to the noun *łeeh* 'dirt, soil'.

In some cases it is still easy to see how the grammar has developed to meet the particular expressive needs of speakers. Yup'ik contains a suffix *-ir-* that can be added to nouns for body parts to create verbs meaning 'have cold X'.

(12) Yup'ik suffix *-ir-* 'have cold ...'

ciutairtua
ciuta-ir-tu-a
ear-cold-INTRANSITIVE.INDICATIVE-1.SG
'I have cold ears, my ears are cold'

it'gairtua
it'ga-ir-tu-a
nose-cold-INTRANSITIVE.INDICATIVE-1.SG
'I have a cold nose, my nose is cold.'

There is a suffix *-ssur-*, which is added to nouns for game or other food or food-catching equipment, which means ‘hunt’, ‘hunt for’, or ‘check’.

(13) Yup’ik suffix *-ssur-* ‘hunt, hunt for, check’

tuntussurtuq
tuntu-ssur-tu-q
caribou-hunt-INTRANSITIVE.INDICATIVE-1.SG
‘he is caribou-hunting’

kuvyassurtuq
kuvyassur-tu-q
net-check-INTRANSITIVE.INDICATIVE-1.SG
‘he is fishnet-checking’

Of course most grammatical morphemes are less concrete in meaning and less transparently related to elements of the physical environment. With age, grammatical categories and distinctions tend to become increasingly abstract, as speakers extend them to more contexts and metaphorical uses.

We can see that both vocabulary and grammatical categories emerge out of language use: from the ideas that speakers choose to express the most often, the concepts they choose to name and refer to, the distinctions they choose to note. In this way, thought and culture can be seen to shape language. It is of course important to remember that linguistic categories do not necessarily match the conceptual, cultural, and social categories of speakers at any particular moment. The languages inherited by children are intricate structures that have evolved, piece by piece and step by step, through centuries and even millenia of use. And they continue to evolve at every moment.

The relationship between language on the one hand and thought, culture, and society on the other is by no means unidirectional. One of the most formative cultural experiences is learning language. As children acquire their first language, they learn concepts for which their language provides vocabulary. They learn distinctions they must observe if they are to speak grammatically. They also learn what to say in particular situations. Such learning is not necessarily limiting: languages, by their nature, are open-ended, allowing speakers to express things they have never heard, and even to introduce changes to the system.

4. Language in culture and society

Language has other kinds of cultural and social roles as well, and these are of special interest to linguistic anthropologists. Language serves as a powerful tool for creating, maintaining, and celebrating culture and social relationships. An important focus of linguistic anthropology has been the uses to which languages are put by their speakers, both consciously and unconsciously.

Most languages exhibit a variety of speech styles, used in different settings and for different purposes. We are fortunate that there is a wealth of narrative material from North American languages on record. The fact that the study of language and culture in

North America developed together for the most part, out of the same scholarly tradition, meant that each was documented as a part of the other, by scholars interested in both. The narrative texts that exist, however, represent only a shadow of the verbal art that was and still is in use. Boas recognized the difficulty of capturing the essence this art.

The slowness of dictation that is necessary for recording texts makes it difficult for the narrator to employ that freedom of diction that belongs to the well-told tale, and consequently an unnatural simplicity of syntax prevails in most of the dictated texts. (1917, p.1)

He was aware of the richness that could not be captured.

As yet, nobody has attempted a careful analysis of the style of narrative art as practised by the various tribes. The crudeness of most records presents a serious obstacle for this study, which, however, should be taken up seriously. We can study the general structure of the narrative, the style of composition, of motives, their character and sequence; but the formal stylistic devices for obtaining effects are not so easily determined. (1917, p.7)

Over the past century, better documentation of verbal art has become possible, and with it has come a fuller appreciation of the powerful and intricate rhetorical skills of gifted narrators. But at the same time, as English has come to replace the traditional languages in many contexts, and evening entertainment has shifted from storytelling to television, such highly-developed art and the artists who create it have become scarcer.

A number of North American peoples have magnificent, elaborate traditions of ceremonial oratory. For a variety of reasons, some practical, some respect for privacy, there are fewer records of ritual speech than of narrative. In many cases, future generations may consider these among the most important aspects of their heritage. But these traditions can be among the most fragile, since their performance requires exceptional oratorical skill unless they are simply learned by rote. They can disappear well before the language itself. Many communities are currently facing decisions about the most effective and appropriate way to preserve them and pass them on.

Many North American languages contain special speech styles used to or by particular groups of people. Often special vocabulary and even grammar are used in addressing one's elders, particularly in-laws (if they are addressed at all). Special vocabulary and grammar are used with young children and pets, as in many cultures throughout the world, and among some groups, intricate patterns of sound alternations are used as well. Of special interest are distinct styles of speech used by men and women in some communities, or to men and women. In some languages of the Siouan family, the different styles are signalled simply of a syllable or two added to the ends of statements, questions, and commands. In Yana of California, they involve pervasive differences in the sounds of most words. In some languages the men's forms can be seen to be basic and older. In others the women's forms are more basic. In still others, the two styles are simply different. Careful examination of extended speech has revealed, however, that the different forms are rarely simple gender markers. Examining everyday interaction in Lakhota, a Siouan language, Trechter (to appear) has found that the forms originally

identified as male speech actually signal a kind of authority, and accordingly are used by women in positions of power and avoided by men out of deference. Describing Yana, Sapir (1929) noted that the men's forms were used only by men speaking to men. More recently Luthin (1991) discovered that the two styles were not purely indicators of sex, but rather of level of formality. The men's forms expressed reserve. They were used not only among men but also in formal public speaking and by men speaking to their mothers-in-law.

Issues of language use can have special consequences in multilingual societies. Patterns of language choice were surely important factors in interaction before European contact. In some areas, such as the West, there was a long tradition of relatively stable multilingualism because communities were small and intermarriage was common. People expected to learn their mother's language, their father's language, and the language of their spouse, which might or might not be the same. Issues of language use became more critical with the arrival of Europeans. In some areas, this contact resulted in the sudden decimation or destruction of communities by massacre or epidemic. The deaths of so many speakers resulted in the demise of large numbers of languages, about which little will ever be known. In more recent times, languages have been fading due to language shift, as they are spoken in fewer and fewer contexts and by fewer and fewer speakers. Some shift has been forced, some voluntary. National government and church organizations, in attempts to integrate native people into mainstream society, shipped children off to boarding schools at an early age, where they were punished for speaking their mother tongues. Many returned knowing only English. Those who did remember their first language vowed not to teach it to their children, hoping to spare them the pain they themselves had suffered. Nevertheless, there are still numerous communities with successful bilinguals, individuals skillful in both their traditional language and that of the outside society, speakers who can exploit the vast linguistic resources they control to great effect. A few communities are predominantly bilingual in this way, as in Greenland. Many others contain lively groups of talented bilingual speakers, but children are no longer following in their footsteps. Most contain fewer bilingual speakers every year. In fact the magnificent linguistic diversity and richness of North America is disappearing at an alarming rate, as speakers use their traditional languages in ever fewer contexts, and ever fewer children learn them at all. Ironically, as the languages are disappearing, respect for them and the cultures they represent has become more widespread, both within local communities and outside. Their value as markers of identity has grown, at a time when skill in their use is disappearing.

It is estimated that no more than one or two dozen of the nearly three hundred languages spoken in North America 500 years ago will survive this century. The disappearance of these languages, sometimes by force, sometimes by choice, is a tremendous loss. Each represents centuries of development, shaped by patterns of expression of generations of speakers. For the descendants of these speakers, their disappearance means the loss of the center of their intellectual, cultural, and social heritage. For all of us, the disappearance of this magnificent diversity deprives us of opportunities to witness and celebrate alternative creations of the human mind, alternative ways of making sense of experience and passing it on.

Marianne Mithun

References

- Boas, Franz, ed.: Handbook of American Indian Languages, Part 1, Bureau of American Ethnology Bulletin 40 (Washington D.C.: Government Printing Office, 1911).
- Boas, Franz "Introduction", International Journal of American Linguistics 1 (1917), 1-8.
- Boas, Franz, ed.: Handbook of American Indian Languages Part 2, Bureau of American Ethnology Bulletin 40 (Washington D.C.: Government Printing Office, 1922).
- Duranti, Alessandro: "Linguistic anthropology: History, ideas, and issues", Linguistic Anthropology, ed., Alessandro Duranti (London: Blackwell, 2001), pp. 1-38.
- Jacobson, Steven A.: Yup'ik Eskimo Dictionary (Fairbanks: Alaska Native Language Center, 1984).
- Luthin, Herbert: Restoring the Voice in Yanan Traditional Narrative: Prosody, Performance, and Presentational Form (Ph.D. dissertation, University of California, Berkeley, 1991).
- Powell, J.W.: Indian Linguistic Families of America North of Mexico. Bureau of American Ethnology Annual Report 7 (Washington D.C.: Government Printing Office, 1891), 1-125.
- Sapir, E.: "Male and female forms of speech in Yana", The Collected Works of Edward Sapir 5: American Indian Languages (Berlin: Mouton de Gruyter, 1990), pp. 335-41.
- Trechter, Sara: The Pragmatic Functions of Gender Deixis in Lakhota (Lincoln: University of Nebraska, to appear).
- Young, Robert and Morgan, William: The Navajo Language: A Grammar and Colloquial Dictionary (Albuquerque: University of New Mexico, Revised edition 1987).

For further reading

- Mithun, Marianne: The Languages of Native North America (Cambridge, UK: Cambridge University Press, 2000).
- Silver, Shirley and Miller, Wick R.: American Indian Languages: Cultural and Social Contexts. (Tucson: University of Arizona, 1997).