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The Linguistic Origins of Native Americans

Ever since European explorers stumbled upon the Americas 500 years ago—and discovered a continent already populated by myriad ethnic groups, speaking hundreds of distinct languages—the question of the origin of the indigenous Americans has puzzled scientist and layman alike.* When it became known in the late eighteenth century that language could be used to trace the origins and migrations of different peoples, it was hoped that these techniques could be applied to Native American languages, first, to classify New World languages into some number of linguistic families comparable to Indo-European, and, second, to find relatives for these groups in the Old World. Thomas Jefferson had a well-known interest in such matters throughout his life. A little over 200 years ago (January 12, 1789) he wrote James Madison, “I endeavor to collect all the vocabularies I can, of American Indians, as of

* An earlier version of this chapter was presented at the International Conference on Language and Prehistory, University of Michigan, November 10, 1988, and was published as Ruhlen (1989). I would like to thank Joseph H. Greenberg for graciously allowing me to use material from his Eurasiatic notebooks. As the proposed etymologies attest, this material often strengthens and extends Nostratic etymologies and in many cases provides evidence for new etymologies. It was, in fact, Greenberg who first suggested a “special relationship” between Eurasiatic and Amerind, in a private conversation in 1985. I would also like to thank John Bengtson, Allan Bomhard, Dell Hymes, and Vitaly Shevoroshkin for critical suggestions, not all of which I have heeded.

those of Asia, persuaded, that if they ever had a common parentage, it will appear in their languages” (Jefferson 1904: 267). But although the process of classifying the languages of the Americas proceeded with demonstrable progress during the succeeding two centuries—especially at the lower levels of classification—the problem of finding Old World relatives has until recently had little success. According to William Bright (1974: 208), “attempts to relate native American languages to Asian languages have not gained general acceptance.” In a recent comparative treatment of North American languages (Campbell and Mithun 1979), a possible genetic relationship between Eskimo-Aleut and Chukchi-Kamchatkan is deemed “the only proposal of connections between New World and Old World languages which at present appears to be worthy of attention” (p. 39).

In recent decades, the results of three major research programs have allowed us to attack the problem of the origin of Native Americans in a new light. The first of these programs is the Russian Nostratic school, which has published over 600 etymologies connecting six Old World families (Illich-Svitych 1967, 1971–84). The second is Greenberg’s classification of New World languages (Greenberg 1987). The third, Greenberg (to appear) is a book on a language family he calls Eurasiatic, which corresponds to a considerable degree with Nostratic (for differences between the two, see below). What follows will make extensive use of all these materials.

I will begin by examining earlier efforts to connect Old and New World languages genetically and will indicate why they were generally unsuccessful. I will then discuss the general congruence between biological classifications and linguistic classifications that has recently been noted by human geneticists studying the structure of the human population on the basis of genetic polymorphisms (Excoffier et al. 1987, Cavalli-Sforza et al. 1988, Barbujani and Sokal 1990). Finally, I will present evidence connecting the Amerind family with the Eurasiatic family. It should be pointed out that additional connections between Amerind and Eurasiatic are given in Chapter 14 herein. The etymologies given there, however, connect both Amerind and Eurasiatic with other other language families. The etymologies adduced in this chapter have a narrower domain, each apparently being restricted to the Eurasiatic/Nostratic-Amerind group.

NOSTRATIC AND EURASIATIC

The belief that Indo-European is a “family isolate,” that is, a family with no known relatives, is one of the most cherished myths of twentieth-century linguistics. Yet at the beginning of this century many linguists had already determined that Indo-European was clearly affiliated with other language fam-

ilies. The English phonetician Henry Sweet wrote in 1901 that “if all these and many other resemblances that might be adduced do not prove the common origin of Aryan [Indo-European] and Ugrian [Finno-Ugric] . . . , then the whole fabric of comparative philology falls to the ground, and we are no longer justified in inferring from the similarity of the inflections in Greek, Latin and Sanskrit that these languages have a common origin” (p. 120). The Italian linguist Alfredo Trombetti expressed the same view four years later: “It is clear that in and of itself the comparison of Finno-Ugric *me* ‘I,’ *te* ‘you’ with Indo-European *me-* and *te-* [with the same meaning] is worth just as much as any comparison one might make between the corresponding pronominal forms in the Indo-European languages. The only difference is that the common origin of the Indo-European languages is accepted, whereas the connection between Indo-European and Finno-Ugric is denied” (p. 44). By mid-century such dissenting views had largely fallen silent.¹

But in the late 1950’s two Russian linguists, Vladislav Illich-Svitych and Aron Dolgopolsky—at first independently and unknown to each other—began a new attack on the problem of demonstrating that Indo-European did indeed have relatives. By comparing reconstructed forms from half a dozen different families of North Africa, Europe, and Asia (Afro-Asiatic, Kartvelian, Indo-European, Uralic, Dravidian, Altaic)² these two linguists proposed over 600 etymologies connecting all six of the families in a higher-level family. Some of these etymologies had previously been noted, at least in part, by other linguists, but many were new. Adopting Holger Pedersen’s term, this even larger family came to be called Nostratic (Dolgopolsky originally used the name *Sibero-European*). At the time of Illich-Svitych’s tragic death in 1966 none of his etymological studies had yet appeared in print. Through the persistent efforts of his friend and colleague Vladimir Dybo, and with the assistance of Dolgopolsky, the work that Illich-Svitych had completed in manuscript form at the time of his death has now been published (Illich-Svitych 1967, 1971–84). Several articles by Dolgopolsky (1964, 1969, 1971, 1972, 1974, 1984) contain additional Nostratic etymologies. Recently the American linguist Allan Bomhard (1984, 1991) has begun investigating the Nostratic family, employing a set of sound correspondences—based on the Glottalic theory of Indo-European—slightly different from those postulated by Illich-Svitych and Dolgopolsky.

In his classification of New World languages Greenberg assigns the Eskimo-Aleut family to a Eurasiatic stock that also includes Indo-European, Uralic-Yukaghir, Altaic, Korean-Japanese-Ainu, Gilyak, and Chukchi-Kamchatkan,

¹ Commendable exceptions include Karl Menges, Bjorn Collinder, and Nicholas Poppe.

² Dolgopolsky originally included Chukchi-Kamchatkan and Sumerian, but not Kartvelian or Dravidian, in his comparisons.

and in his book on the Eurasiatic family (to appear), he presents over 500 etymologies. As can be seen, the Nostratic and Eurasiatic families overlap. Indo-European, Uralic, Altaic, and Korean belong to both, but the two families differ in that Eurasiatic includes additional groups in East Asia (Japanese, Ainu, Gilyak, Chukchi-Kamchatkan, Eskimo-Aleut), while Nostratic includes not these, but additional groups in Southwest Asia (Dravidian, Kartvelian, Afro-Asiatic). As might be anticipated, there is also considerable overlap in the etymologies supporting these two families.

What are we to make of the different constituencies of the Nostratic and Eurasiatic families? Two different aspects of the question must be clearly distinguished, and the frequent confusing of the two by scholars has led to a certain amount of misunderstanding in discussions of distant relationship. The first is whether the languages within Nostratic, or those within Eurasiatic, have been shown to be genetically related; the second is whether Nostratic and/or Eurasiatic are valid taxa. Concerning the first question, there is really no difference between the Nostraticists' views and those of Greenberg, who readily admits that Kartvelian, Dravidian, and Afro-Asiatic are related to Eurasiatic. The three are not, however, in his view, as *closely* related to the Eurasiatic languages as the Eurasiatic languages are to each other. Thus Eurasiatic might be thought of as a subgroup of an even larger Nostratic stock, and both Eurasiatic and Nostratic might be valid taxa.

But it is also possible that neither Eurasiatic nor Nostratic is a valid taxon. It is possible that Kartvelian should be included in Eurasiatic, with which it shares the characteristic first- and second-person pronouns, *m* and *t/s*. And as regards Nostratic, we can say with certainty that the classical definition of Nostratic—as subsuming the six families enumerated above—is not a valid taxon. This is not surprising, since during the development of Nostratic the choice of the six families was determined in part simply by the availability of reconstructed proto-forms, which eliminated certain families from consideration. In any event, the Nostraticists never intended to exclude the addition of other families to Nostratic as better historical materials became available. In fact, all of Greenberg's eastern extensions have at one time or another been included in the work of Nostraticists. At the western end of Nostratic the situation is less clear, in the sense that certain families, such as Khoisan and Nilo-Saharan, have been excluded from consideration by the Nostraticists primarily because there are no reconstructed proto-forms.

The essential difference, then, between the work of the Nostraticists and that of Greenberg, is that Greenberg, as in all his taxonomic work from Africa to the Americas, has sought to *classify* the world's languages. He has never attempted to prove that *A* is related to *B*; relationships, whether close or distant, are merely the consequences of classification. Nostraticists, on the other

hand, have never been primarily concerned with classification, but rather with the attempt to prove that Indo-European is related to other families. Indeed the Nostratic family is *defined* as consisting of those families that are related to Indo-European. This is not, however, a permissible way to define a taxon on any level, in biology or in linguistics. The stubborn insistence of so many linguists on according Indo-European special status cannot be defended; it is simply one family among many to be classified—nothing more, nothing less.

Another difference between the Nostraticists and the Greenberg camp is that Nostraticists place great emphasis on reconstruction and sound correspondences, which in Greenberg's methodology—and in biological taxonomy—play no essential role (see Chapter 14 herein). Recently some Nostraticists have begun to recognize the importance of classification itself. Thus, Sergei Starostin (1989) now considers Afro-Asiatic related to Nostratic at greater remove, rather than being simply a member of it, and he goes on to say: "I have no reason at all to suppose a closer genetic link between Nostratic and Sino-Caucasian than, e.g., between Nostratic and Afro-Asiatic or Afro-Asiatic and Sino-Caucasian" (p. 49).

So what, then, has all this to do with Amerind? If we combine the work of the Nostraticists with Greenberg's work on Eurasiatic, we have a rich collection of close to 1,000 etymologies defining a vast family of the Old World. And although the edges of that vast family remain somewhat fuzzy, it offers ample evidence to compare with the corresponding data provided for the Amerind family by Greenberg (1987), and thus to identify genetic relationships between Amerind and Nostratic/Eurasiatic.

AMERIND

The long and tumultuous history of the classification of Native American languages is reviewed in Ruhlen (1987: 205–27). For our purposes here it suffices to note that Greenberg (1987) presented evidence that the indigenous languages of the Americas fall into three distinct genetic groups: (1) Eskimo-Aleut, (2) Na-Dene, and (3) Amerind. Since the first two groups had long been recognized and accepted, it was the inclusion of all other aboriginal languages in a single family that set Greenberg's classification apart from previous attempts. Greenberg presented over 2,000 etymologies in support of Amerind and its eleven subfamilies, 329 of which connect at least two subgroups of Amerind. Closer scrutiny of the etymologies defining individual Amerind subgroups (e.g. Penutian, Hokan, Andean) indicates that an additional 160 Amerind etymologies can be discerned in Greenberg's data (see Chapter 8 herein), raising the total number of Amerind etymologies to almost 500. Just as first-person *m* and second-person *t/s* characterize the Eurasiatic family, the

Amerind family is characterized by first-person *n* and second-person *m*, both of which are attested in every Amerind subfamily. In addition, there are lexical items that permeate every nook and cranny of the Amerind family, while being apparently absent elsewhere in the world (see Chapter 9 herein). We might note that Greenberg's classification of New World languages has been greeted with disbelief and incredulity by many Amerindian linguists, just as his African classification provoked controversy among Africanists some four decades ago. For discussion of the current debate on the classification of American languages, see Chapter 6 herein and Greenberg (1989).

Greenberg's tripartite classification of American languages has obvious implications for the peopling of the Americas, for it suggests that there were *at most* three migrations from Asia that have left a trace in the linguistic record. Of course there could have been a single migration, with subsequent diversification into Greenberg's three families, and two migrations is also a theoretical possibility. But in fact the number of distinct migrations can only be determined by the larger—non-American—context. Three distinct migrations can only be supported by showing that each of Greenberg's three New World families is more closely related to an Old World family—and in each case a *different* Old World family—than any two of the New World families are to each other. And indeed this appears to be the case.

The genetic affinity of the Eskimo-Aleut family with languages of Northern Eurasia was already recognized by Rasmus Rask in the early nineteenth century, and since that time numerous scholars have noted the connection, though usually in terms of binary comparisons that made the relationship less apparent than it would be in a multilateral comparison. Greenberg includes Eskimo-Aleut in his Eurasiatic family, and Dolgopolsky (1984) included it in Nostratic. Even the relatively small amount of material I will offer here leaves little doubt that Eskimo-Aleut is an integral part of the Eurasiatic family, and archaeological evidence supports a very recent arrival of the ancestors of Eskimos and Aleuts in the New World.

It is well known that Edward Sapir, in the early part of this century, proposed a genetic affinity between Na-Dene and Sino-Tibetan. On the question of the Na-Dene–Sino-Tibetan relationship Sapir was blunt: “If the morphological and lexical accord which I find on every hand between Na-Dene and Indo-Chinese is ‘accidental,’ then every analogy on God's earth is an accident. It is all so powerfully cumulative and integrated that when you tumble to one point a lot of others fall into line. I am now so thoroughly accustomed to the idea that it no longer startles me” (quoted in Golla 1984: 374). Recently Campbell (1988: 593) has ridiculed this proposal: “Needless to say, no specialist today embraces this claim.” In fact, however, Sapir's proposed connection has recently been supported by both Russian scholars (Starostin

1984, Nikolaev 1991) and American scholars (Bengtson 1991a,b, Ruhlen 1990 and Chapter 4 of this volume); both groups now place Na-Dene in a proposed Dene-Caucasian family that also includes Sino-Tibetan, Yeniseian, and North Caucasian (see Chapter 1 herein). It thus appears that Na-Dene is related to a different Old World language family (Dene-Caucasian) than is Eskimo-Aleut (Eurasianic), which implies that each represents a distinct migration from Asia, just as Sapir suspected in 1920: “I do *not* feel that Na-Dene belongs to the other American languages. I feel it as a great intrusive band that has perhaps ruptured an old Eskimo-Wakashan-Algonquian continuity. . . . Do not think me an ass if I am seriously entertaining the notion of an old Indo-Chinese offshoot into N.W. America” (Golla 1984: 350).

So what, then, of Amerind? It is the aim of this chapter to provide linguistic evidence that the Amerind family reflects a third migration from the Old World, almost certainly the first of the three. This evidence concludes the chapter, and the etymologies assembled there indicate that the Amerind family is more closely related to the Eurasianic/Nostratic family in the Old World than to any other Old World family. But whereas Eskimo-Aleut is a *member* of Eurasianic, Amerind is simply *related to* Eurasianic, at greater remove, and Na-Dene belongs to a different family altogether, Dene-Caucasian.

In light of the now substantial archaeological, biological, and linguistic evidence, the following scenario for the peopling of the Americas seems most likely. The initial migration into the New World, some time before 12,000 BP (before present), gave rise to the Amerind family, whose vast geographic spread and great linguistic diversity are indicative of its early arrival. Just how early that arrival may have been is a bone of contention among archaeologists. Many maintain that humans did not reach the Americas until the Clovis culture appears in the archaeological record around 12,000 years ago, and they dismiss alleged earlier dates as spurious. There are, however, other archaeologists who claim to have evidence of earlier human habitation in the Americas, with dates ranging from 13,000 BP (the Monte Verde site in Chile), to 16,000 BP (the Meadowcroft site in Pennsylvania) to over 40,000 BP (the Pedra Furada site in Brazil). I tend to share the views recently expressed by Jared Diamond (1992: 345): “How could people have gotten from Alaska to Pennsylvania or Chile, as if by helicopter, without leaving good evidence of their presence in all the intervening territory? For these reasons, I find it more plausible that the dates given for Meadowcroft and Monte Verde are somehow wrong than that they are correct. The Clovis-first interpretation makes good sense; the pre-Clovis interpretation just doesn’t make sense to me.” Unfortunately, linguistic evidence, which is notoriously poor at providing absolute dates, cannot resolve this controversy. Nor, so far, have studies of blood types, gene pools, and such.

The precise date of the second migration is also uncertain, but we might estimate 7,000 BP for the migration that brought the Na-Dene family into the Americas. Finally, perhaps 4,000 years ago, a third migration gave rise to the Eskimo-Aleut family, whose lesser linguistic divergence and marginal position on the Northern periphery of the Americas both indicate late arrival.

DISTANT RELATIONSHIP

Over the years there has been no shortage of attempts to find genetic links between New and Old World languages. The vast majority of such attempts have suffered from a fatal flaw: they invariably sought to show that some specific language (or language family) in the New World was related to some language (or language family) in the Old World. For example, Karl Bouda (1960–64) tried to show that Quechua (South America) was related to Tungus (East Asia). Such binary comparisons, usually chosen by happenstance, have been the bane of long-range comparison. There is very little likelihood that a language spoken in one part of the world is *directly* related to some language spoken on the other side of the world. Tungus is clearly most closely related to the other Altaic languages, which in turn are but one subfamily of Nostratic/Eurasiatic. Quechua, on the other hand, is just as obviously most closely related to other Andean languages in South America, which themselves form but one branch of the vast Amerind family. So to compare one member of Nostratic/Eurasiatic with one member of Amerind, ignoring the evidence of other, more closely related languages on each side of the equation, is methodologically unsound and can hardly be expected to provide useful results. Nonetheless, in the United States, in recent decades, such ad hoc binary comparisons became a substitute for classification, and serious taxonomic work ground to a halt.

But for those who sought Old World relatives for American Indian languages, there was at the time no way out of the dilemma, since the basic classificatory work had simply not yet been done on American languages. And in the Old World, prior to the rise of the Russian Nostratic school, most comparisons between Old World families were themselves more often than not of a binary nature. Greenberg's classification of American languages, with hundreds of etymologies defining the vast Amerind family, has for the first time provided the wherewithal for comparisons with similar material from Old World language families to which Amerind might in fact be directly related. In the same way, Nostratic and Eurasiatic etymologies define a comparable family in the Old World, providing the wherewithal for the other half of the comparison.

There is of course no a priori reason why the Amerind family should be genetically closer to Nostratic/Eurasiatic than to some other Old World group. Where the relationships fall, in the scheme of things, is strictly an empirical question, to be decided by comparative research. Nor have I chosen to compare Amerind with Nostratic/Eurasiatic simply because the detailed materials on the two are now available. Rather, a comprehensive comparison of these two families with the world's other language families has led me to conclude that the vast Amerind family is genetically closest to Nostratic/Eurasiatic, among all of the world's families. Though I consider it unlikely, it is of course possible that future research will find that Amerind is closer to some other Old World family. And I recognize that the still higher-level family comprising Nostratic/Eurasiatic *and* Amerind languages is genetically related to *other* high-level language families. Some of the evidence of these further genetic connections is given in Chapter 14 herein, and Starostin (1989) presents convincing evidence linking Nostratic and Dene-Caucasian.

Though the problems at this level of classification are formally the same as those of classifying languages at the lowest level, they are often treated as if they were somehow different. The point is not merely to show that *A* is related to *B*, but rather to specify the *degrees* of relationship among all relevant language families (*A*, *B*, *C*, . . .) in the form of a hierarchy of relationships that is customarily represented by a tree diagram. Trees of this sort are of course just what zoologists and botanists have been constructing and reconstructing for centuries.

One other scholar whose interhemispheric comparisons did not suffer from the fatal flaw of binary comparison was Morris Swadesh. Following the earlier pioneering efforts of Alfredo Trombetti (1905), Swadesh sought to show that all the world's languages are related in one large family. "On Interhemispheric Linguistic Connections" (1960) is perhaps his most explicit presentation of evidence connecting Old World and New World languages. He wrote there, for example, that "recent research seems to show that the great bulk of American languages form a single genetic phylum going far back in time. . . . Eskimo-Aleutian and Nadenean seem to stand apart, and may therefore represent later waves of migration" (p. 896). Some of the etymologies I will present below overlap with some of Swadesh's, and I recognize that his case for interhemispheric connections was not without merit. Nevertheless, many of his etymologies are not convincing, and frequently even his valid etymologies contain many forms that I believe are spurious. In my opinion, Swadesh permitted excessive semantic liberty in his etymologies—the etymologies given below, I believe, are more tightly constrained, both semantically and phonologically—and in his later work he seemed to lose sight of the importance of a hierarchical classification, preferring instead a less explicit global network. This is not to

minimize his contribution, for he himself recognized that “all published theories of interhemisphere relations, along with the present one, are not yet adequately supported, but they reaffirm the need for, and perhaps show the feasibility of, this kind of study. In time we will surely see satisfactory proof of these or other theories of interhemisphere linguistic relations” (pp. 895–96). It is my hope that the materials presented here will take us one step further along the path that Swadesh pioneered.

BIOLOGICAL AND LINGUISTIC CLASSIFICATIONS

If the genetic isolation of Indo-European is no more than a cherished myth of contemporary linguistics, the notion that biological and linguistic classifications of the human population show little correlation is another. As Campbell (1986: 488) puts it, “repetition of the obvious seems required: there is no deterministic connection between language and gene pools or culture.” Recently, however, biologists studying the structure of the human population on the basis of genetic markers have discovered that there is in fact a very high degree of correlation between biological and linguistic classifications, confirming Trombetti’s observation at the beginning of this century that “agreement between language and race is the rule. Disagreement is the exception” (Trombetti 1905: 55).

During the past decade Trombetti’s insight has been rediscovered by a number of human biologists (see Chapter 1 herein). For the Americas the correlation between language and genes has proved to be remarkably and unexpectedly close. A year before the publication of *Language in the Americas*, Greenberg, Christy Turner, and Stephen Zegura (1986) discovered that classifications of Native Americans based on either dental traits or genetic traits (such as blood groups) both arrive at the same tripartite classification proposed by Greenberg on the basis of language. A similar conclusion was reached by Luca Cavalli-Sforza and colleagues (1988, 1994), who, in the most detailed study to date of human genetics among aboriginal American populations, found that Native Americans fall into precisely Greenberg’s three families. Furthermore, the Cavalli-Sforza group found that the population that appears closest to Amerind (disregarding Na-Dene, whose biological closeness to Amerind is probably due to millennia of admixture) is the population that is spread across northern Eurasia, the group known linguistically as Eurasiatic or Nostratic: “A link of Nostratic with Amerind . . . was recently suggested by Shevoroshkin. It is most striking that the union of Eurasiatic and Nostratic, with the Amerind extension, includes all, and only, the languages spoken in our major Northeurasian cluster, with the exception of Na-Dene, the origin of which is less clear” (Cavalli-Sforza et al. 1988: 6005). It is for this

vast grouping—stretching all the way from northern Africa, across Eurasia, and throughout both North and South America—that linguistic evidence of affinity is adduced in the present chapter.

Biologists have long recognized the fundamental importance of classification as a means of providing diachronic insight. As Stephen Jay Gould (1989) recently put it, “the reconstruction of the human family tree—its branching order, its timing, and its geography—may be within our grasp. Since this tree is the basic datum of history, hardly anything in intellectual life could be more important” (p. 22). Many linguists, on the other hand, have developed the quaint notion that the only use for classification is in reconstruction and the discovery of regular sound correspondences. As Sarah Thomason (to appear) has put it: “If we want to say, with Greenberg, that demonstrating genetic relationship does not require showing that reconstruction is possible, then I think it’s appropriate to ask what the purpose of our classification is. If it is merely a way of bringing some order into a long list of languages . . . , then historical linguists will have no quarrel with the enterprise as long as it’s not called genetic classification.” Theodora Bynon (1977: 272) renders a similar assessment of Greenberg’s methods: “It is clear that, as far as the historical linguist is concerned, it [multilateral comparison] can in no way serve as a substitute for reconstruction, for to him the mere fact of relationship is of little interest in itself.” Though such views are not unusual among linguists, it would be difficult, if not impossible, to find a biologist who would subscribe to them.

NOSTRATIC/EURASIATIC–AMERIND ETYMOLOGIES

There is no a priori reason why Nostratic/Eurasiatic and Amerind should share numerous and detailed similarities. Indeed, were it true, as many linguists believe, that evidence of genetic affinity disappears through constant phonetic and semantic erosion after just 6,000 years, then there should be no similar roots at all between Nostratic/Eurasiatic and Amerind—whose time of separation must be considerably greater than 12,000 years—save those arising from sheer accident. I believe that the detailed similarities presented below, frequently so precise as to exhibit the same glottalized consonant in the root in both Nostratic and Amerind, can only be the result of common origin. Such intimate analogies cannot realistically be ascribed to anything else.

In the following etymologies the general order, from one etymology to the next, is alphabetical either by Nostratic reconstruction (e.g. **bälλ* in No. 3), or, where the Nostratic reconstruction is lacking, by a Eurasiatic phonetic gloss of my own creation (e.g. **aka* in No. 1). In each etymology the Nostratic or Eurasiatic forms are listed first, followed by the Amerind forms. Within

the Nostratic-Eurasiatic complex the ordering of the constituent subfamilies generally proceeds from west to east, while the Amerind subfamilies generally follow a north-south progression. Sources of the information are given in brackets at the ends of the etymologies, with the Nostratic, Eurasiatic, and Amerind sources separated by a semicolon. For Nostratic (N), one will find either the etymology number from the Nostratic dictionary (N 232), the page number in Volume 1, where many unnumbered etymologies are given (N I:7), or the page number in Illich-Svitych's 1967 article (IS 335). For the Eurasiatic (E) etymologies, drawn from Greenberg (to appear), either the number of the grammar section (E G15) or the semantic gloss (E SPEAK) is given. For Amerind (A), drawn chiefly from Greenberg (1981, 1987), the etymology number (A 218, MP 30) or the number of the grammar section (A G12) is cited. The following abbreviations are used to identify the relevant sections of Greenberg's book: AK: Almosan-Keresiouan, P: Penutian, H: Hokan, CA: Central Amerind, CP: Chibchan-Paezan, AN: Andean, EQ: Equatorial, MT: Macro-Tucanoan, MC: Macro-Carib, MP: Macro-Panoan, MG: Macro-Ge. In addition to the Amerind forms cited in Greenberg's book, I have added many additional Amerind forms from Greenberg's unpublished Amerind notebooks (Greenberg 1981).

1. EURASIATIC **aka* 'older brother,' Yukaghir *aka* 'older brother,' Proto-Turkic **āka* 'older brother,' Mongolian *aqa* 'older brother,' Tungus *akā* 'brother,' Ryukyuan *aka* 'older brother,' Ainu *ak/aki* 'younger brother,' Gilyak *ik̄in* 'older brother' = AMERIND *(*k*)*aka* 'older brother, older sister,' Nisqualli *kukh* 'older brother,' Okanagan *kīka* 'older sister,' Shuswap *kix* 'older sister,' Kalispel *qāx̄e* 'maternal aunt,' Kutenai *kokt* 'maternal aunt,' Seneca *-hak* 'aunt,' Tuscarora *gus-xahg* 'paternal aunt,' Adai *ahhi* 'aunt,' Hidatsa *ika* 'aunt,' Alsea *hāʔt* 'older brother,' Bodega Miwok *kaaka* 'uncle,' Southern Sierra Miwok *kaka* 'uncle,' Yuki *kīk-an* 'maternal uncle,' Tflatik *kaka* 'aunt,' Zuni *kaka* 'maternal uncle,' Natchez *kāka* 'older brother,' Mixe *ahč* 'older brother,' Sayula *axč* 'older brother, uncle,' Kekchí *as* 'older brother,' Zoque *ʔat̄si* 'older brother,' Totonac *kuku* 'uncle,' Achomawi *kex* 'uncle,' East Pomo *kēq* 'uncle,' North Pomo *-ki-* 'older brother,' Kashaya *-ki-* 'older brother,' Salinan *kaai* 'older brother,' Karok *xukam* 'uncle,' Jicaque *kokam* 'uncle,' Tewa *koʔō* 'aunt,' Varohio *kukuri* 'paternal uncle,' *ka'ká* 'maternal aunt,' Ixcatec *kwaʔa* 'aunt,' Tirub *kega* 'uncle,' *kak* 'aunt,' Matagalpa *kuku-ke* 'uncle,' Paya *uku* 'uncle,' Kagaba *kukui* 'aunt, niece,' Ona *kakan* 'paternal aunt,' Yeba *kako* 'uncle,' Masaca *kokomai* 'uncle,' Waraicu *ghuk* 'uncle,' Manao *ghooko* 'maternal uncle,' Sammaika *koko* 'uncle,' Mashco *kokoa* 'uncle,' Kushichineri *koko* 'uncle,' Cuniba *kuku* 'uncle,' Bare *koko* 'aunt,' Canamarim *ghughu* 'un-

cle,' Piro *koko* 'uncle,' Apiaca *koko* 'uncle,' Bakairi *kxuγu* 'uncle,' Pimenteira *kuckú* 'uncle,' Cavineña *ekoko* 'uncle,' Panobo *kuka* 'uncle,' Pacawara *kuko* 'uncle,' Palmas *kēke-* 'older sibling,' Apucarana *kanki* 'older brother,' Oti *koaka* 'brother.' [E BROTHER; A 178, P 31, H 54]

2. EURASIATIC **ana* 'mother, grandmother, old woman,' Proto-Indo-European **an-* 'grandmother, mother,' Hittite *annas* 'mother,' *hannas* 'grandmother,' Lycian *xāna* 'grandmother,' Armenian *han* 'grandmother,' Proto-Turkic **ānā* 'mother,' Tungus *ēnī/ēnē* 'mother,' Korean *ēni* 'mother,' Yupik *aana* 'mother,' Labrador *anāna* 'mother,' Greenlandic *ānak* 'grandmother' = AMERIND **nani* 'mother, aunt,' Blackfoot *naṛa* 'mother,' Gros Ventre *-inā* 'mother,' Caddo *ṛina?* 'my mother,' Huron *anan* 'aunt,' Osage *ina* 'aunt,' Proto-Oto-Manguean *(*n*)(?*l*)*na(h)(n)* 'mother, woman,' Proto-Uto-Aztecan **na* 'mother,' Catuquina *inai* 'aunt,' Kaliana *īnoī* 'grandmother,' Puinave *aiña* 'aunt,' Ticuna *niai* 'woman,' Yuri *aino* 'female,' Guahibo *ena* 'mother,' Kariri *aña* 'aunt,' Kandoshi *aniari* 'mother,' Proto-Tacanan **nene* 'aunt,' Macca *nana* 'mother,' Vilela *enana* 'aunt,' *nane* 'mother.' [E GRANDMOTHER & MOTHER; A 14, MP 46]

3. NOSTRATIC **bāl* 'light,' Proto-Afro-Asiatic **bl-* 'light, shine,' Proto-Indo-European **bhel-* 'white, light,' Proto-Altaiic **bāli* 'light, pale' = AMERIND **pala* 'white,' Yakonan *λpāal-* 'white,' Lutuami *palpal* 'white,' Mixe *pōʔp* 'white,' Zoque *popo* 'white,' Washo *dal-popoi* 'white,' Santa Cruz Chumash *pupu* 'white,' Qawashqar *palihhl* 'white,' Canichana *bala/bara* 'white,' Chiranga *bole* 'white,' Särä *boro* 'white,' Catuquina *parany* 'white,' Bare *balini* 'white,' Wapishana *barak* 'white,' Yuracare *bolo-* 'white,' Chamacoco *poro* 'white,' Cayuvava *-pora-* 'white,' Turaha *pōṛā* 'white,' Achagua *paray* 'white,' Towothli *apol-* 'white,' Vilela *po* 'white,' Vejoz *pelaj* 'white,' Lule *pop* 'white.' [IS 363; A 266]

4. NOSTRATIC **biša* 'bile,' Proto-Indo-European **bis-(t)l* 'bile,' Proto-Uralic **pyša* 'bile, yellow, green' = AMERIND **pat^si* 'liver,' Proto-Algonquian **wīswi* 'gall,' Montagnais *uīši-* 'bitter,' Hidatsa *apiša* 'liver,' Wichita *wass* 'bitter,' Crow *išā* 'bitter,' Yuchi *w'asdā* 'sour' (v.), Cherokee *uyəsdi* 'bitter,' Nez Perce *pisakas* 'bitter,' Atakapa *añpats* 'sour,' Atsugewi *ōpsi* 'liver,' Karok *vafis* 'liver,' Shasta *ʔēpsi?* 'liver,' Mohave *hipasa* 'liver,' Cocopa *č-ipošo* 'liver,' Akwa'ala *čuposi* 'liver,' Rama *i-psa* 'liver,' Cuitlatec *bahči* 'sour,' Paez *pos* 'sour,' Guajiquero *pasa* 'bitter,' Manare *pasi-gui* 'sweet' (-*gui* = 'not'), Guambiana *pat^se* 'liver,' Cayapa *basu* 'human liver,' Chimu *počak* 'liver,' Zaparo *hipat^ska* 'gall,' Yamana *hīpa* 'liver,' Quechua *p'ošqo* 'sour,' Nadobo *bōčihign* 'sour,' Yuracare *ipasa* 'liver,' Candoshi *šipič* 'liver,' Caranga *paxč* 'liver,' Proto-Tacanan **pat^se* 'bitter,' Tacana *pat^seda* 'bitter,' Huarayo *pase* 'bitter,' Mosesten *bit^st^sa* 'bitter,' Chiquito *piča-ka-s* 'bitter.' [IS 340; A 35 & 168, MP 58]

5. NOSTRATIC *č'ik'λ 'cut,' Proto-Kartvelian *č'eč'k' 'cut (finely),' Proto- Altaic *čikλ- 'cut, chop,' Evenki čikā- 'cut, chop,' Even čiki- 'chop' = AMERIND *t'ik'wā/*t'ak'wī 'hit, cut, break,' Proto-Salish *t'aq'w 'break,' Snohomish t^saq' 'hit,' Lillooet t^sikən 'beat, whip,' Seshault t^siq'wət 'hit,' Shuswap t^sikən 'hit,' Squamish t'əq'w 'break,' Nootka t^soq'w 'hit,' Quileute t^sex 'hit,' Kutenai t^sik' 'destroy,' Proto-Central Algonquian *šākw- 'break,' Kowilth tik 'cut through,' Yurok tik'wōhs 'break, cut,' Wichita tīk^wi/tak^wi 'hit,' Ofo diki 'hit,' Tsimshian t'ā? 'slap,' Chinook t'āk ~ tsəx 'break,' North Sahaptin šəx 'cut through,' Coos tōh 'hit,' Wappo t'ak'i? 'cut,' Mixe tsuk 'cut,' Sayula tsuk 'cut,' Huastec t'ak'iyal 'cut,' Proto-Mayan *sak 'hit,' Quiché t^s'ax 'hit,' Jalcaltéc tsok'o 'chop,' Shasta k^wannitīk 'he chopped it,' East Pomo t'es 'cut off,' Salinan šāko 'chop,' Maricopa t^sik'jet 'cut,' Jicaque t'ī- 'cut,' Hopi tīikī 'cut,' Nahuā -teki 'cut,' Pipil tegi 'cut,' Zacapoaxtla teki 'cut,' Tewa t^s'á? 'sever with a knife,' Popoloca t'īče 'break,' Cuna čike 'cut,' Move tikeko 'cut,' Sanema tiiksaki 'a blow,' Yamana ačikam 'cut,' Ticuna tīčei 'cut,' Cofan čičiku 'knife,' Cocoma tsaki-ta 'cut,' Paumari siiki 'cut.' [IS 361, N 55; A 149, AK 31, P 110, AN 37]

6. NOSTRATIC *da (locative), Proto-Afro-Asiatic *d (locative), Proto-Kartvelian *-da (allative), Proto-Indo-European *-D/-eD (ablative), Proto-Dravidian *-tt/-tt(λ) (locative, ablative), Proto-Uralic *-ḍa/-ḍā (ablative), Yukaghir -da (locative), Proto-Altaic *-da (locative), Korean it-te 'now' (= demonstrative + locative), te 'place,' Japanese -ta (locative), Ainu -ta/-te (locative), Koryak ti-te 'when,' Aliutor ti-ta 'when' = AMERIND *te ~ *ta (locative), Maidu di 'in,' Klamath di 'place of,' Catio -de (locative), Move -te 'in,' Lule ta- 'through, in.' [N 59; E G32; A G49]

7. NOSTRATIC *gät'i/käčλ 'hand,' Proto-Afro-Asiatic *kt 'hand,' Proto-Western Cushitic *kč' 'hand,' Proto-Indo-European *g^hes- 'hand,' Proto-Uralic *käte 'hand,' Proto-Dravidian *kac- 'hand,' Korean kaci (< kati) 'branch, bough,' Kamchadal hk'ec 'hand' = AMERIND *kit^se/kut^se 'hand,' Blackfoot -kit^s- 'finger,' Wiyot kisan 'finger,' ?Yurok -ketew 'little finger,' Nootka qāt^s- 'give present,' Squamish čis 'hand,' Lower Fraser aqus 'give,' Kalispel x^wīt^s 'give,' Pawnee skitsik 'finger,' Wichita iškitsa 'finger,' Tutelo -ksa 'hand,' Chinook ōkši 'finger,' Wishram wa-kšən 'finger,' Natchez kus 'give,' Quiché koč 'gift,' Shasta akhusik 'finger,' Santa Ynez Chumash ikš 'give,' Santa Barbara Chumash xiks 'give,' Penomeño kuse ~ kise 'hand,' Norteño kuse 'hand,' Move kusegra 'finger,' Borunca i-kūs(-kwa) 'finger, hand,' Kagaba guaša 'give,' Paez kuse 'hand, finger,' Ayoman a-kosi-kega 'finger,' Panikita kuse 'hand,' Moguex koze 'hand,' Beto ru-m-okosi 'hand,' Qawashqar kisiaol 'give me!,' Andoa ku-agwaši 'hand,' Coche kukuač 'hand,' Chipaya k'as 'give me!,' Kokoz toai-ikisu 'hand,' Anunze ua-kize 'hand,' Tauite toai-kize 'hand,' Suyu nikasi 'finger,' Oti ikese 'finger,' Erikbatsa kašuisa 'hand.' [IS 362, N 80; E HAND₂; AK 93, P 89, CP 92]

8. NOSTRATIC **goHja* ‘sunlight, dawn,’ Proto-Indo-European *(s)*kāi* ‘clear, light,’ Proto-Uralic **koja* ‘dawn, sun,’ Yakut *kujaš* ‘dawn,’ Mongolian *gei* ‘shine,’ Dagur *gei* ‘become light,’ Orok *gewa* ‘dawn,’ Korean *hay* ‘sun,’ Japanese *-ka* ‘day,’ Ainu *ko* ‘day,’ Gilyak *ku* ‘day,’ Chukchi *kivkiv* ‘day,’ Inuit *qau* ‘day, daylight’ = AMERIND **q^wai* ‘sun, day, dawn, daylight,’ Kwakwala *q^wəʔla* ‘be bright,’ Chemakum *qal-* ‘sun,’ Nootsack *sk^wayl* ‘day,’ Upper Chehalis *-q^w* ‘day,’ Lkungen *sq^wəq^wə* ‘sun,’ Snohomish *qəq* ‘sunshine,’ Yurok *kekeʔy-* ‘shine,’ Seneca *kē-hkwā* ‘sun, moon,’ Cherokee *iga* ‘day, light,’ Yuchi *aga* ‘day, east,’ Siuslaw *qai* ‘dawn’ (v.), Yakonan *qai* ‘be light,’ Coos *k^{wi}ʔ-s* ‘light,’ North Sahaptin *quiχ* ‘dawn, light,’ Maidu *ʔeki* ‘day,’ San Juan Bautista Costanoan *ake* ‘day,’ Proto-Mayan **q^wix^j* ‘day, sun,’ Mam *kih* ‘sun, day,’ Ixil *k^wix* ‘day,’ Kakchiquel *q^wih* ‘day,’ Quiché *q^wih* ‘sun, day,’ Seri *kkwáaʔ-ka* ‘light,’ Comecrudo *xi* ‘light,’ Tlappanec *ā^wkaʔ* ‘sun,’ Kiowa *k^{hi}H* ‘day,’ Tewa *ki* ‘be daylight,’ Isleta *koʔ* ‘light,’ Chatina *quih* ‘light,’ Trique *gwi* ‘sun, day,’ Isthmus Zapotec *gui* ‘light,’ Mazatec *t^sui* ‘sun,’ Nortño *kowe* ‘day,’ Binticua *gei* ‘light,’ Guamaca *kuaka* ‘shine,’ Borunca *kak* ‘sun,’ Paez *kwikkwi* ‘light, be light,’ Andaquí *kaki* ‘sun,’ Jebero *kōki* ‘sun,’ Cahuapana *kogua* ‘sun,’ Ticuna *iake* ‘sun,’ Kapishana *kuikae* ‘sun,’ Dzubucua *ukie* ‘day, sun,’ Uru *uxi* ‘light,’ Goajiro *kaʔi* ‘sun,’ Muinane *kúuxé* ‘day,’ Jaricuna *xi* ‘sun,’ Taruma *hwa* ‘sun.’ [IS 342, N 85; E DAWN, DAY₁ & LIGHT₃; P 145]

- Many of the forms appear to show reduplication of the stem.

9. NOSTRATIC **gura* ‘swallow, throat,’ Proto-Afro-Asiatic **g(w)r* ‘swallow, throat,’ Proto-Kartvelian **q^worq^w* ‘throat,’ Proto-Indo-European **g^wer(H)* ‘swallow,’ Proto-Uralic **kürke* ‘throat,’ Proto-Dravidian **kura-* ‘throat, voice,’ Proto-Altaiic **gürä* ‘neck,’ Korean *kalki* ‘mane,’ Gilyak *qorqr* ‘throat’ = AMERIND **k^wora* ‘neck,’ ?Yurok *ʔekeʔr* ‘necklace,’ Yuchi *k^wo* ‘throat,’ Proto-Maiduan **k^wuji* ‘neck,’ Proto-Muskogean **kwalak* ‘swallow,’ Chitimacha *k^we* ‘neck,’ Atakapa *kol* ~ *kul* ‘swallow,’ Proto-Mayan **qul* ‘neck,’ Quiché *qul* ‘neck, throat,’ Uspantec *k^wul* ‘neck,’ ?Achomawi *hāllōq* ‘neck,’ Isleta *k^wôa* ‘neck,’ Kiowa *k^wou-l* ‘neck,’ Proto-Uto-Aztecan **ku* ‘neck,’ Southern Paiute *qura* ‘neck,’ Tübatulabal *kulā* ‘neck,’ Atanque *gōla* ‘neck,’ Binticua *güergüero* ‘neck,’ Guatuso *kolosi* ‘neck,’ Warrau *korá* ‘swallow,’ Catio *okarra* ‘throat,’ Macu *tse-kolo* ‘throat,’ Esmeralda *kola* ‘neck,’ Uro *k^wora* ‘neck,’ Caranga *k^wora* ‘throat,’ Emerillon *e-kurukawe* ‘throat,’ Yaruro *goro* ‘neck,’ Zamuco *potogoro* ‘throat,’ Bare *nu-kurateka* ‘throat,’ Galibi *kororo* ‘neck,’ Bakairi *kiu-γoro-l* ‘throat.’ [IS 335, N 91; E THROAT₂; A 196, EQ 114]

10. NOSTRATIC **γama* ‘darkness, night,’ Proto-Afro-Asiatic **gm* ‘dark,’ Arabic *gammā* ‘darkness,’ Proto-Kartvelian **γam-(e)* ‘night,’ Georgian *γame* ‘night,’ Chan *γoma(n)* ‘yesterday,’ Megrelian *γuma* ‘last night’ = AMERIND **xama* ‘night, dark, black,’ Bodega Miwok *ʔume* ‘evening,’ Lake Miwok *ʔúme* ‘night,’ Chitimacha *ʒima* ‘night,’ Chontal *umi* ‘black,’ Karankawa *ma* ‘black,’

Chimariko *hime* ‘night,’ San Luis Obispo Chumash *č-xime* ‘night,’ Yurumanguí *mai-sa* ‘night,’ Mazatec *hma* ‘black,’ Mazahua *xômü* ‘night,’ Warrau *imajana* ‘night, dark,’ Allentiac *hom-hom-niag* ‘black,’ Itonama *yumani* ‘night,’ Guambiana *yem* ‘night,’ Warrau *ima* ‘night,’ Matanawi *yamāru* ‘night,’ Colorado *āma* ‘shadow,’ Manekenkn *mai* ‘black,’ Pehuelche *yema* ‘black,’ Siona *ajjammās* ‘black,’ Yahuna *yamia* ‘night,’ Cubeo *yami* ‘night,’ Tsöla *yami* ‘night,’ Tucano *yami* ‘night,’ Waikina *yami* ‘night,’ Wanana *yami* ‘night,’ Movima *imai* ‘night,’ Itene *mana* ‘night,’ Arikem *emα* ‘black,’ Bakairi *yama* ‘become dark,’ Mosenen *iomom* ‘night,’ *yomoi* ‘spend the night,’ Proto-Panoan **jami* ‘night,’ Panobo *yamuo* ‘night,’ Shipibo *yamui* ‘night,’ Arazaire *yamuiki* ‘night,’ Botocudo *him(e)* ‘dark, black,’ Chavante *maia* ‘night,’ Camacan *hamani* ‘night.’ [IS 368, N 99; A 197, H 15, MG 12]

11. NOSTRATIC **Hok’λ/HuK’a* ‘eye, see,’ Proto-Indo-European **h^wek^w-/ok^w-* ‘eye, see,’ Proto-Dravidian **akλ* ‘understand, know,’ Proto-Altaiic **uka* ‘notice, understand’ = AMERIND **ʔuk’a* ~ **ʔik’a* ‘eye, see,’ Cheyenne *-exa* ‘eyed,’ *maʔ-exa* ‘eye,’ Cherokee *ha-ga-ta* ‘look,’ Seneca *-kā-* ‘eye,’ *kε-* ‘see,’ Tuscarora *-ghoh-* ‘eye,’ Yuchi *k’a* ‘watch,’ Santa Ana Keres *ga* ‘look,’ Hidatsa *ika* ‘see, look,’ Crow *ikyā* ‘look,’ Nass *gāa* ‘see,’ Yokuts *ʔek’a* ‘see,’ Yaudanchi *ōka* ‘see,’ Atsugewi *iʔʔi* ‘look,’ Washo *iki* ‘see,’ Havasupai *ʔika* ‘see,’ Walapai *ʔik* ‘see,’ Yurumanguí *-ikui-* ‘see,’ Tarascan *exe-ni* ‘look, see,’ Terraba *ik* ‘see,’ Changuena *uku* ‘eye,’ Chumulu *oko* ‘eye,’ Norteño *okua* ‘eye,’ Move *ogua* ‘eye,’ Paya *guā* ‘eye,’ Colorado *kaka* ‘eye,’ Catio *akai* ‘see,’ Quechua *qā* ‘see,’ Mapudungu *ghe* ‘eye,’ Pehuenche *ge* ‘eye,’ Parawa *iku* ‘eye,’ Capishana *i-kīi* ‘eye,’ Maku *ku* ‘see,’ Proto-Nambikwara **eika* ‘eye,’ Guahibo *eka* ‘look,’ Ipurina *n-oke* ‘eye,’ Taruma *gugwa* ‘watch,’ Ocaina *xā* ‘see,’ Kokoz *toai-ikiki-su* ‘eye,’ Bororo *yoko* ‘my eye.’ [IS 333, N 118; AK 163, MT 36]

12. NOSTRATIC **jamλ* ‘water, sea,’ Proto-Afro-Asiatic **jam* ‘water, sea,’ Proto-Uralic **jamλ* ‘sea,’ Proto-Dravidian **am(m)* ‘water’ = AMERIND **jume* ‘water,’ Nootsack *huem* ‘water,’ Cherokee *ama* ‘water,’ Laurentian *ame* ‘water,’ Wyandot *amē* ‘water,’ Wappo *méy* ‘water,’ Zuni *ām* ‘drink,’ Atsugewi *jume* ‘river,’ Achomawi *ajūmā* ‘river,’ San Buenaventura Chumash *ma* ‘river,’ Esselen *imi-la* ‘sea,’ Washo *ime* ‘drink,’ Tonkawa *yōmʔa* ‘rain,’ Coahuilteco *xama* ‘wet,’ *yaman* ‘drink,’ Cuitlatec *ʔumλ* ‘water,’ Yurumanguí *č-uma* ‘drink,’ Tewa *ʔomū* ‘wet,’ Chinantec *jmē* ‘rain,’ Ixcatec *ʔuhme* ‘wash,’ Tarascan *-ma-* (action in water), Cabecar *mo* ‘rain,’ Shiriana *mau* ‘water,’ Jaqaru *uma* ‘water, drink,’ Aymara *uma* ‘water, drink,’ Zaparo *moo* ‘water,’ Colan *amum* ‘sea,’ Cholona *omium* ‘wave,’ Macu *mi* ‘drink,’ Curiariai *mō* ‘lake,’ Waikina *maa* ‘river,’ Uasona *ma* ‘river,’ Querari *mā* ‘water,’ *uεmē* ‘river,’ Proto-Nambikwara **hamōi* ‘rain,’ Aguaruna *jumi* ‘water, rain,’ *um-* ‘drink,’ Yuracare *jumijumi* ‘rain,’ Guamo *jum* ‘lake,’ Shuara *umu-* ‘drink,’ *yumi* ‘rain,’ Guahibo *ema* ‘rain,’ Tuyoneri *meei* ‘water,’ *ja-mai* ‘drink,’ Achual *yumi* ‘wa-

ter,' Gualaquiza *yumi* 'water,' Guarani *ama* 'rain,' Yukuna *ōmo* 'river,' Pilaga *yum* 'drink,' Toba-Guazu *yom* 'drink,' Komlek *yomyi* 'drink,' Vilela *ma* 'water,' Botocudo *himo-hum* 'wash,' *muniã* 'water, rain.' [IS 349, N 144; A 89, CP 211, AN 97, EQ 125]

13. NOSTRATIC **k'äcä* 'cut, break,' Proto-Afro-Asiatic **qs* 'cut, beat, break,' Proto-Kartvelian **k'ac*₁- 'cut, chop,' Svan *k'č-* 'chop,' Proto-Indo-European **kes-* 'cut,' Proto-Uralic **käcä/kecä* 'knife, edge, point,' Proto-Dravidian **kacc-* 'bite, sting,' Proto-Altaiic **k'äsä-* 'cut' = AMERIND **k'at*^s*i* 'cut, break,' Proto-Central Algonquian **kīšk-* 'cut through, sever,' Quileute *k'i* 'cut,' Tutelo *kitse-* 'break,' Santee *ksa* 'break,' Wichita *ikatski* 'cut off,' Dakota *kašda* 'cut off,' Biloxi *utkusi* 'cut,' Pawnee *akakat*^s*k'* 'cut,' Nez Perce *kas* 'cut,' Nomlaki *kači* 'slice,' Patwin *k'osa* 'knife,' Central Sierra Miwok *kiče* 'arrowhead,' Natchez *kets* 'cut,' Koasati *kōs* 'cut,' Wappo *k'əše* 'cut,' *lil-kus* 'knife,' Huchnom *wai-kūči* 'knife,' Creek *koče* 'break,' Tzotzil *k'as* 'break,' Yana *kačča* 'knife,' Kashaya *kača* 'knife,' East Pomo *katsa* 'knife,' Seri *kišix* 'cut,' Cochimi *čisili* 'knife,' Tonkawa *kespat*^s*e* 'be broken,' Karankawa *kusila* 'knife,' Papago *hikut*^s*i* 'cut,' Zapotec *kuča* 'break sticks,' Ixcatec *ɽuč^he* 'break,' Miskito *kisuru* 'knife,' Quechua *k^huču* 'cut,' Aymara *k^huču* 'cut,' Ticuna *kiči* 'knife,' Movima *kačiru* 'knife,' Taparita *gače* 'cut,' Chamacoco *kēčērēha* 'knife' (cf. Palmella *rexe* 'knife'), Guahibo *kučiaba* 'knife,' Guajajara *kit*^s*i* 'cut,' Oyampi *kəsi* 'cut,' Kamayura *kiči* 'cut,' Siriono *kise* 'cut,' Guarani *kiče* 'knife,' Cocoma *kiči* 'knife,' Maue *kese* 'knife,' Munduruku *kise* 'knife,' Caranga *k^xač-* 'cut,' Yagua *kiči* 'knife,' Fulnio *k^heči* 'divide,' Camican *keča* 'knife,' Kaingan *kiče* 'knife.' [N 196; A 49, MP 20, MG 70]

14. NOSTRATIC **k'ačä* 'man, youth,' Proto-Kartvelian **k'ac*₁- 'man, youth,' Proto-Uralic **kačä* 'youth, man' = AMERIND **k'ači* 'boy, child,' Proto-Salish **qet*^s*k* 'older brother,' Lillooet *käčih* 'older brother,' Siletz *suq'ežs* 'older brother,' Kalispel *qet*^s*č* 'older brother,' Kutenai *qask'o* 'male,' Chemakum *kat*^s*a-pat* 'girl,' Proto-Algonquian **ne-kwižsa* 'my son,' Ojibwa *nen-kwiss* 'my son,' Menomini *ne-kīžs* 'my son,' Proto-Siouan **kšī* 'boy,' Ofo *wakasik* 'child,' Mohawk *-ksa-* 'child,' Chinook *-k'asks* 'child,' Miluk *kwič-* 'child,' Coos *kwēs* 'girl,' Molale *kus-asa* 'child,' San Jose Costanoan *kočo* 'boy,' Southern Sierra Miwok *kot*^s*o* 'son,' Zuni *katsi-k'i* 'girl, daughter,' Huchnom *-k'ič* 'older brother,' Chitimacha *kiča* 'girl,' Atakapa *kiš* 'girl,' Mixe *kīs* 'girl,' Sayula *kižčway* 'boy,' Tzeltal *ač'iis* 'girl,' Karok *kač* 'son,' Arra-arra *akit*^s 'brother,' Konomihu *kwičekh* 'girl,' Achomawi *qəsāwi* 'man,' East Pomo *qus* 'baby,' Santa Cruz Chumash *kučo* 'child,' Santa Inez Chumash *kiči* 'infant,' Cochimi *kača* 'brother, sister,' Cocopa *ksa* 'older brother,' Maricopa *ačis* 'daughter,' Comecrudo *kišaχ* 'boy, girl,' Zacapoaxtla *ukič* 'man,' Terraba *kwazir* 'boy,' Boncota *ohut*^s*-kašo* 'girl,' Pehuelche *akač* 'son, daughter,' Genneken *agačke* 'son, daughter,' Simacu *kiča* 'man,' Mococho *kašim* 'brother,'

Cuica *kašik* ‘brother, sister,’ Trumai *axos* ‘young, child,’ Murato *kīša* ‘girl,’ Timote *kušik-neum* ‘my sister,’ Miranya *kossá* ‘daughter,’ Mocoa *čišik* ‘female child,’ Motilon *šwkāš* ‘little son,’ Botocudo *kizak* ‘brother, sister,’ Tibagi *akoči* ‘son,’ Guarapuava *koši* ‘son,’ Krenye *i-kasü-ye* ‘daughter.’ [N 191; A 281, AK 44, P 88, H 29, MT 61]

15. NOSTRATIC **K’älHä* ‘tongue, talk,’ Proto-Indo-European **k(λ)lē/ke* ‘call,’ Proto-Uralic **kēle* ‘tongue,’ Proto-Altaic **k’älä-* ‘tongue, speak,’ Gilyak *qlai* ‘converse,’ Chukchi *qulit* ‘voice,’ Kamchadal *kel* ‘shout,’ Yuit *qalatuq* ‘talk, speak,’ Kuskokwim *kaligaa* ‘calls’ = AMERIND **q’wal* ~ **q’wel* ‘say, speak,’ Proto-Algonquian **kelaw* ‘speak,’ Shawnee *kala* ‘talk,’ Micmac *kelusit* ‘he speaks,’ Kutenai *?aqa?cxa-* ‘tell,’ Squamish *q’wal* ‘speak,’ Kalispel *q’wel* ‘speak,’ Pentlatch *kwel* ‘say,’ Lkungen *q’el* ‘say,’ Nootsack *sq’wuq’wal* ‘speak,’ Coeur d’Alene *qwa?q’el* ‘speak,’ Kwakwala *-(k)?āla* ‘say,’ Nootka *-wā(ł)* ‘say,’ Bella Bella *wālaq’wāla* ‘speak,’ Oneida *-kalatu-* ‘tell a story,’ Chinook *k’wł* ‘tell,’ North Sahaptin *Wal* ‘converse,’ Coos *γāla* ‘speak,’ Siuslaw *hał* ‘shout,’ Yakonan *qalx* ‘shout,’ Takelma *sgelew* ‘shout,’ Bodega Miwok *?ākal* ‘tell,’ Wappo *?okál’i?* ‘talk,’ Zuni *?ik’wa* ‘say,’ Natchez *weł* ‘speak,’ Totonac *kiłwan* ‘say,’ Santa Cruz Chumash *kalala* ‘shout,’ Salinan *k’ok’ol’še* ‘speak,’ Cocopa *k’ark’ar* ‘speak,’ Shoshone *?ek’wa* ‘tongue,’ Ona *kal* ‘tongue,’ Qawashqar *kalaktas* ‘tongue,’ Quechua *qallu* ‘tongue,’ Yahgan *galana* ‘shout,’ Iranshe *wala* ‘talk,’ Masaca *walu* ‘tongue.’ [N 221; E SPEAK₁; A 218]

16. NOSTRATIC **K’ap’a* ‘cover, close,’ Proto-Afro-Asiatic **kp-/qp-* ‘close, cover,’ Proto-Uralic **kopa* ‘bark,’ Kamassian *kuba* ‘skin, hide,’ Estonian *kōba* ‘fir bark,’ Cheremiss *kuwo* ‘shell, hull, husk,’ Proto-Dravidian **kapp-/kavλ-* ‘to close,’ Proto-Altaic **k’apa-* ‘cover,’ Middle Korean *kēpcil* ‘bark,’ Japanese *kabur-* ‘put on, cover,’ *kapá* ‘bark,’ Ainu *sik-kap* ‘eyelid,’ Gilyak *xip* ‘birch bark,’ Greenlandic *qapuk* ‘scum, froth’ = AMERIND **q’ap’a* ‘cover, close,’ Squamish *qəp* ‘close,’ ?Kalispel *čep* ‘lock a door,’ Kwakwala *qāpōtəla* ‘close,’ Chemakum *hap’ili* ‘cover,’ Oowekyala *kapa* ‘to lift a lid, blanket,’ Haisla *kāpa* ‘covered with frost,’ Proto-Central Algonquian **kep* ‘close,’ Shawnee *kip-* ‘covered, closed up,’ Ojibwa *-kopy* ‘bark,’ Wiyot *k’apł* ‘be covered,’ Dakota *akaxpa* ‘close,’ Santee *akaxpa* ‘cover,’ Catawba *kəpa* ‘close,’ Tutelo *kəpa* ‘cover,’ ?Nass *hāp* ‘cover,’ Takelma *k’ūb-i* ‘skin,’ Molala *qeps* ‘skin,’ Maidu *kápú* ‘bark,’ Wintu *χap-la* ‘bark,’ Nomlaki *kapala* ‘bark,’ Zuni *k’apa* ‘be broad,’ Quiché *q’op* ‘close,’ Kekchi *ts’ap* ‘close,’ Mixe *kip-ak* ‘bark,’ Southern Pomo *k^hawa* ‘bark,’ Northeast Pomo *k^hawa* ‘bark,’ East Pomo *xāWal* ‘bark,’ Southeast Pomo *χwal* ‘bark,’ Salinan *awuł* ‘bark,’ Tonkawa *-kapa* ‘shut,’ Tlappanec *hwapa* ‘broad,’ Jicaque *kupal-pone* ‘broad,’ Tewa *k’owa* ‘skin,’ San Ildefonso *k^howa* ‘bark,’ Cuna *akapa* ‘close one’s eyes,’ Tarascan *hupr-ku* ‘cover,’ Chimila *akopron* ‘cover,’ Binticua *auan-kaba* ‘broad,’ Atacama *k’aba* ‘hide,’ Aymara *khopi-* ‘cover,’ Iranshe *kap* ‘cover,’ Tuyoneri

ua-kipe ‘scale,’ Itene *kapi-ye* ‘skin,’ Amniape *koapa* ‘skin,’ Arawak *kabburan* ‘be broad,’ Waraquena *kēpili* ‘broad,’ Mascoy *kjab* ‘cover,’ Panobo *kepu* ‘close,’ Shipibo *kepu* ‘close,’ Coroado *kapo-em* ‘to close,’ Krenye *kapi* ‘to bolt,’ Botocudo *unkupa* ‘broad.’ [N 212; E SKIN; A 66]

• Illich-Svitych (1967: 356) gave the reconstruction **k’ap’*ʌ.

17. NOSTRATIC **K’ara* ‘hearth, burn,’ Proto-Afro-Asiatic **k’rr* ‘burn,’ Proto-Kartvelian **k’era* ‘hearth,’ Proto-Indo-European **ker-* ‘burn, fry, fire,’ Proto-Uralic **kor-pe-* ‘singe, burn,’ Proto-Dravidian **kar(ʌ)-* ‘burn, be scorched’ = AMERIND **q’wala* ‘burn,’ Proto-Salish **q’wəl* ‘cook, roast,’ Shuswap *q’wl-* ‘roast,’ Twana *q’wələb* ‘cook,’ Nootsack *k’wl* ‘cook,’ Squamish *q’wəl-t* ‘cook,’ Pentlatch *kwolaš* ‘roast, cook,’ Seshault *k’wəl* ‘cook,’ Lower Fraser *q’wələm* ‘cook,’ Chemakum *q’wəʔili* ‘roast,’ Mohawk *karis* ‘cook,’ Tsimshian *gwalk* ‘burn,’ Takelma *k’wəlay* ‘fire,’ Coos *kwiʔ* ‘cook, boil, burn,’ Tarascan *kharhipa* ‘roast,’ Sanema *kwarag’e* ‘fire,’ Colorado *guaranae* ‘boil,’ Warrau *koré-boil*, Eten *karrm* ‘cook, boil,’ Nonama *kura* ‘fireplace,’ Qawashqar *isgura* ‘cook,’ Tschaawi *kalu* ‘cook,’ Cahuapana *kalota-* ‘cook,’ Siona *kuara* ‘boil,’ Kandoshi *kora* ‘burn,’ Wapishana *karimet* ‘roast,’ Arawak *akkurran* ‘bake,’ Kozarini *kerā* ‘burn,’ Saliba *igara* ‘burn, fire,’ Yuracare *kula* ‘cook,’ Siriono *kwarokwara* ‘boil,’ Yuruna *karigon* ‘cook,’ Tacana *kwarara* ‘boil,’ Cayapo *kūrii* ‘fire,’ Bororo *goriddo* ‘roast.’ [IS 353, N 215; EQ 24]

18. NOSTRATIC **K’arä* ‘black, dark,’ Proto-Afro-Asiatic **k’r/kr* ‘black,’ Proto-Indo-European **ker-/ker-s* ‘black, dark,’ Proto-Dravidian **kar/kār/kār* ‘black, dark,’ Proto-Altaic **Karä* ‘black,’ Mongol *küreŋ* ‘dark brown,’ Manchu *kuri* ‘dark brown,’ Korean *kir̥inca* ‘shadow,’ Japanese *kuro-i* ‘black,’ Ainu *ekurok* ‘black,’ *kuru* ‘shadow,’ Gilyak *iγr-* ‘black,’ Eskimo *qirniq* ‘black’ = AMERIND **k’ara* ‘black,’ Wichita *kārʔi* ‘black,’ Mohawk *-akaraʔ-* ‘to darken,’ Tutelo *ikare* ‘dark,’ Rumsen *karsist* ‘black,’ Karok *ikxaram* ‘night,’ Atacameño *kirikiri* ‘black,’ Ona *kar* ‘charcoal,’ Qawashqar *ha-kar* ‘dark, black,’ Araucanian *kuru* ‘black,’ Saliba *igarri* ‘become dark,’ Shuara *kiar* ‘become dark,’ Upano *kerama* ‘dark,’ Mekens *koārap* ‘black,’ Surinam *kārai* ‘black,’ Mocoa *karanka* ‘paint the face black,’ korošik ‘black,’ Galibi *mekoro* ‘black,’ Opaie *kōra* ‘black.’ [IS 372, N 213; E BLACK₁; A 38, MC 4]

19. NOSTRATIC **K’Eč’a* ‘summer heat,’ Proto-Afro-Asiatic **q(j)ṭ* ‘summer, heat,’ Proto-Uralic **kEČa* ‘summer heat, summer’ = AMERIND **k’et^s* ~ **k’at^s* ‘hot, heat, sun, summer,’ Proto-Central Algonquian **kešj* ‘hot,’ Shawnee *kiš* ‘hot,’ Cree *kis-* ‘hot,’ Fox *kišesw* ‘sun,’ Passemaquody *kīsus* ‘sun,’ Yurok *ket^soyn-hego* ‘sun,’ Proto-Salish **k’was* ‘hot, scorch,’ Nootsack *k’was* ‘hot,’ Pentlatch *kwās* ‘hot,’ Columbian *skwats* ‘hot,’ Wichita *kišō* ‘sun,’ Acoma *kāšāiti* ‘summer, year,’ Natchez *haši* ‘sun,’ Choctaw *haši* ‘sun,’ Huastec *k’ičā* ‘sun,’ Tzeltal *k’išin* ‘heat,’ Arra-arra *kišen* ‘summer,’ Santa Ynez Chumash *kīs-si* ‘sun,’ Seri *kkošij* ‘be hot,’ Utah *k’wučii* ‘hot,’ Mixtec *kači* ‘warm, damp,’

Popoloca *kusuwa* ‘heat,’ Lenca *kaši* ‘sun,’ Miskito *kisni-sa* ‘heat,’ Yahgan *kisi* ‘summer,’ Koaia *kasa* ‘sun,’ Opaye *hečō-ata* ‘summer’ (*ata* = ‘hot’), Choroti *a-kus* ‘hot,’ Suhin *kus* ‘hot.’ [N 224; AK 103]

20. EURASIATIC **ki* ‘2, dual,’ Armenian *-k*‘ (plural), *me-k*‘ ‘we,’ Turkish *iki* ‘2,’ Yukaghir *ki* ‘2,’ Proto-Finno-Ugric **-me-k* ‘we’ (cf. **-te-k* ‘thou’), Hungarian *-k* (plural), Saami *-k* (plural), Ostyak *-k(-an)* (dual), Yenisei Ostyak *k(-an) ~ k(-ai)* (dual), Selkup *-qi* (dual), Yukaghir *tkit* ‘2,’ Turkish *äkür* ‘2,’ Mongolian *ikire* ‘twins,’ *iki* ‘2,’ Gilyak *me-gi* ‘we 2’ (cf. *me-r* ‘we inc.’), *-ki* ‘and,’ Chukchi *-mA-k* ‘we,’ *-tA-k* ‘you’ (verb suffixes), Proto-Eskimo-Aleut **-mi-k* ‘we 2,’ **-ti-k* ‘you 2,’ Eskimo *-k* (dual), Aleut *-k* (dual) = AMERIND **ki* ‘we 2 inc.’, Proto-Algonquian **ke-* ‘thy,’ Potawatomi *kin* ‘thou,’ *kin-an* ‘we inc.’ (cf. *nin-an* ‘we ex.’), *kin-wa* ‘you,’ Yurok *-k*‘ ‘I,’ Wiyot *-ak* ‘I,’ Iroquois *k-* ‘I,’ Wyandot *kj-* ‘we 2 inc.’, *kw-* ‘we inc.’, Pawnee *k-* ‘I,’ Yokuts *ma-k*‘ ‘we 2 inc.’ (cf. *ma-i* ‘we inc.’), Rumsien *ma-k* ‘we,’ Chitimacha *-ki-* ‘me,’ Papantla *ki-t* ‘I,’ *ki-n* ‘we,’ Maratino *ko* ‘we inc.’, Pomo *ke-* ‘my,’ Karok *ki-n* ‘we,’ Taos *ki-* ‘we,’ South Pame *kakh* ‘we inc.’, Xinka *ka-* ‘thou,’ Millcayac *ka* ‘thou,’ Tarascan *-ke(-ni)* ‘first-person singular acts on second-person singular,’ Kaliana *ka(-be)* ‘thou,’ Proto-Ge **ka* ‘thou,’ Carib *k-* ‘we 2 inc.’, Uitoto *koko* ‘we 2,’ *-ko* (dual), Galibi *oko* ‘2,’ Hishcariana *asa-ko* ‘2,’ Cholona *ok* ‘I,’ *ki-* ‘our,’ Gennaken *ki-* ‘my,’ *kia* ‘I,’ Mayna *-ke* ‘let us,’ Andoa *kua* ‘I,’ Zaparo *kui* ‘I,’ *ko-* ‘my,’ *ka(-na)* ‘we exc.’ [E TWO₂ & G14; A G10, G19 & G28]

21. EURASIATIC **ku ~ ko* ‘this,’ Japanese *ko-no* ‘this,’ Ryukyuan *ku-ni* ‘this,’ Ainu *ku-ri* ‘this,’ Gilyak *ku* ‘that,’ Chuvash *ku* ‘this,’ Southern Uighur *ko* ‘this,’ Korean *ko* ‘that,’ Hittite *kā* ‘this,’ *kūn* ‘this’ (acc.), *kūs* ‘these’ (nom./acc.) = AMERIND **ko ~ ki* ‘this,’ Chumash *kaki* ‘this,’ Subtiaba *kagi* ‘this,’ Cochimi *khu* ‘this,’ Jicaque *kone* ‘this,’ *kiʔa* ‘here,’ Auake *kiʔa* ‘this,’ Guarani *ko* ‘this,’ Puquina *ko* ‘this, that,’ Caraja *kua* ‘this,’ Kamakan *kue* ‘that,’ Cherente *kua* ‘he.’ [E G10; A G22]

22. NOSTRATIC **kʷutʷ* ‘small,’ Proto-Afro-Asiatic **kʷ(w)t* ‘small,’ Proto-Kartvelian **kʷutʷ-* ‘small,’ Proto-Dravidian **kuḍḍ-* ‘small,’ Turkish *küçük* ‘small,’ Uighur *kičik* ‘small,’ Evenki *köčaken* ‘small,’ Ryukyuan *kūt-ēng* ‘be small,’ Kamchadal *kižg* ‘fine, small,’ Kuskokwim *kituq* ‘be small,’ Inuit *-kuči* (diminutive) = AMERIND **kʷutʷi* ‘small, thin, narrow,’ Chemakum *kʷutin* ‘small,’ Quileute *kʷudī* ‘small,’ Laguna *kʷiči* ‘tight,’ Santa Ana *kʷiči* ‘tight,’ Wishram *kʷaitʷ* ‘small,’ Nez Perce *kutskuts* ‘small,’ Molala *kutʷa* ‘small,’ Klamath *kʷečča* ‘small,’ Modoc *ketsa* ‘thin,’ Proto-California Penutian **kut* ‘little,’ Patwin *kuči* ‘small,’ San Jose Costanoan *kuču-wis* ‘small,’ Wappo *kutʷija* ‘small,’ *hutʷiʷis* ‘thin,’ Zuni *kʷusa* ‘become thin,’ Quiché *čʷuti-k* ‘be small,’ Huave *kičeeč* ‘small,’ Pokomchi *kʷisa* ‘small,’ Totonac *aktzú* ‘small,’ Santa Cruz Chumash *kučo* ‘child,’ Santa Ynez Chumash *kiči* ‘infant,’ ?Salinan *kʷoškwetop* ‘thin,’ Seri *kisiʔ* ‘small,’ *koosot* ‘narrow,’ Kiliwa *ket* ‘small,’ Wala-

pai *kēt^s* ‘small,’ Yavapai *kit^si* ‘small,’ Tequistlatec *guʔušu* ‘narrow,’ ?Kiowa *kā't^s-syān* ‘narrow,’ Mazahua *xūt^sü* ‘thin,’ Tehuelche *kuṭr* ‘thin, narrow,’ Qawashqar *ikot* ‘small,’ Macu *kudi* ‘small,’ Canamari *kuduta* ‘small,’ Quitemo *kuči* ‘thin,’ Amuesha *kit^ske* ‘narrow,’ Piaroa *kikiče* ‘small,’ Tuyoneri *-ket* ‘small,’ Caranga *kos* ‘thin,’ Maquiritare *akede* ‘thin,’ Toba-Guaza *quoti* ‘small,’ Angaite *ketsoo* ‘small,’ Lengua *kut^sk* ‘small,’ Choroti *a-kisa* ‘thin,’ Botocudo *kuji* ‘small,’ Ingain *kutui* ‘small,’ Krenye *akod*. [IS 348, N 205; E SMALL₃; A 254]

23. NOSTRATIC *Kʼʌ (allative), Proto-Afro-Asiatic *k (allative), Proto-Uralic *kkʌ/-kʌ (allative), Yukaghir *-ge/-go* (allative), Proto-Dravidian *kkʌ/-kʌ (dative, allative), Proto-Altaic *kʌ (dative, allative), Gilyak *-ak* (dative, allative), Aliutor *-ka* (allative), Chukchi *-ki* (locative), *-kjit* (direction of), *mi-k* ‘where,’ Greenlandic *-k* (locative), *na-k-it* ‘whence’ = AMERIND *k(ʼ)i (allative), Wiyot *ok^w* ‘in,’ Yurok *-ik* ‘in,’ Seneca *-keh* ‘in,’ Maidu *-k* ‘toward,’ Alsea *k-* (locative), Yuki *k'il* ‘toward,’ Totonac *k-* ‘in,’ Yana *-ki* ‘hither,’ Washo *-uk* ‘toward,’ Atsugewi *-k* (allative), Chimu *-ek* ‘to,’ Cuna *ki-* ‘in, at, by.’ [N 245; E G26; A G45]

24. NOSTRATIC *-la (collective), Proto-Uralic *-la (collective), Proto-Dravidian *-l (plural), Proto-Altaic *-l(a) (collective), Kamchadal *-al* (collective) = AMERIND *-le ~ *-la (plural), Mataco *-el* (plural), Lule *mi-l* ‘you’ (cf. *mi* ‘thou’), *-l* (personal plural, e.g. *kwe-l* ‘children’), Mocovi *le-* (plural, cf. *i-tā* ‘his father’ and *le-tā* ‘their father’), Guambiana *-ele* (noun plural), Colorado *-la* (plural of nouns and pronouns), Xinca *-li* (plural of nouns and pronouns), Murire *-re* (pronoun plural), Bribri *-r* (noun plural), Paya *-ri* (plural verb subj.). [N 246; E G20; A G33]

25. NOSTRATIC *magʌ ‘earth,’ Proto-Indo-European *meǵh- ‘earth,’ Proto-Uralic *māγe ‘earth,’ Yukaghir *mi-be* ‘underworld,’ Korean *ma* ‘earth,’ Ainu *ma* ‘peninsula, island,’ Gilyak *mi-f* ‘earth’ = AMERIND *ʔamek^wa ‘earth,’ Proto-Salish *t-mix^w ‘earth,’ Squamish *t-mix^w* ‘earth,’ Thompson *tə-mûx^w* ‘earth,’ Nootsack *mix^w* ‘earth,’ Proto-Algonquian *āmeHk(w)- ‘earth, soil,’ Fox *āmehk(w)-* ‘earth,’ Menomini *āmēhk(w)-* ‘earth,’ Shawnee *wāp-āmʔkwi* ‘white clay,’ Arapaho *mixta'amu* ‘earth,’ Cheyenne *-oma-* ‘ground,’ Kutenai *ammāk* ‘earth,’ Santee *maka* ‘earth,’ Hidatsa *ama* ‘earth,’ Mandan *ma'āk* ‘earth,’ Biloxi *amā* ‘earth,’ Ofo *amān* ‘earth,’ Tutelo *manáʔ ~ māʔ* ‘earth,’ Nez Perce *ʔāma* ‘island,’ Yakima *uma* ‘island,’ Wappo *ʔóma* ‘earth, world,’ Chimariko *ama* ‘earth,’ Proto-Pomo *ʔa(h)mā ‘earth,’ Kashaya *ʔamā* ‘earth, dirt,’ Southern Pomo *ʔamā* ‘earth,’ Northern Pomo *mā* ‘earth,’ Northeast Pomo *ʔamā* ‘earth,’ Southeast Pomo *maʔ* ‘earth,’ Proto-Yuman *ʔ-mat ‘earth,’ Cochimi *emat* ‘earth,’ Cocopa *maʔ* ‘earth,’ Maricopa *amat* ‘earth,’ Yuma *ʔamaʔ* ‘earth,’ Mohave *amat* ‘earth,’ Diegueño *ʔemat* ‘earth,’ Quinigua *ama* ‘earth,’ Jicaque *ma* ‘earth,’ Tarascan *omequa* ‘island,’ Yahgan *mik'in* ‘earth,’

Mocochi *mikuč* ‘earth,’ Callahuaya *makke* ~ *yamakan* ‘earth,’ ?Tora *timak* ‘earth,’ Chapacura *čimak* ‘earth,’ Urupa *manaka* ‘earth,’ Wañam *namakwam* ‘earth,’ Yagua *makane* ‘earth,’ Aparai *amato* ‘island,’ Ouayana *ahmonta* ‘island,’ Sapiboca *meči* ‘earth,’ Cavineña *meči* ‘earth,’ Panobo *maxpo* ‘earth,’ Cashinawa *mapo* ~ *mai* ‘earth,’ Caripuna *māi* ‘earth,’ Otuke *moktuhu* ‘earth,’ Camacan *hamiko* ‘earth,’ Botocudo *am* ‘island,’ Patasho *aham* ‘earth,’ Macuni *ām* ‘earth.’ [IS 342; E EARTH₁; A 96]

26. EURASIATIC **man* ‘hand,’ Proto-Indo-European **man-/mǝ-r-* ‘hand,’ Yurak *mana* ‘finger,’ Tungus *mana* ‘paw,’ Korean *manei* ‘touch,’ Ainu *amojn* ‘hand,’ *imeka* ‘gift,’ Gilyak *imγ-* ‘give,’ *man-* ‘measure by handspans,’ *tuĩ-miñ* ‘finger,’ Aliutor *mǝnγ-* ‘hand,’ Kerek *mǝnǝqal* ‘hand,’ Itelmen *man Ze* ‘palm’ = AMERIND **man-/mak-* ‘hand, give,’ Proto-Central Algonquian **mī* ‘hand,’ Kwakiutl *maχwa* ‘give potlatch,’ Chinook *m-* ‘hand (v.),’ Maidu *ma* ‘hand,’ Central Sierra Miwok *ammǝ* ‘give,’ Choctaw *ima* ‘give,’ Mixe *ma* ‘give,’ Totonac *makan* ‘hand,’ Akwa’ala *man* ‘arm,’ East Pomo *ma* ‘hold,’ Salinan *maa* ‘hand,’ Tequistlatec *mane* ‘hand, arm,’ *mage* ‘five,’ Proto-Uto-Aztecan **ma* ‘hand,’ **maka* ‘give,’ Proto-Chinantec **man* ‘hand,’ Kiowa *mā* ‘hand,’ *mē-ga* ‘give,’ Proto-Tanoan **ma-n* ‘hand,’ Colorado *manta* ‘hand,’ Ayoman *man* ‘hand,’ Mayna *mani* ‘arm,’ Quechua *maki* ‘hand,’ Ona *mar* ‘arm, hand,’ Ticuna *mi* ‘hand,’ Proto-Tupi **meʔej* ‘hand,’ Caranga *maka* ‘receive,’ Pilaga *imak* ‘left hand,’ Lengua *amik* ‘hand,’ Proto-Panoan **mĩkĩnĩ* ‘hand,’ Kamakan *mane* ‘give,’ Bororo *mako* ‘give,’ Kaingang *ma* ‘bring.’ [E HAND₁; A 137]

27. NOSTRATIC **mene* ‘walk, step,’ Proto-Indo-European **men-* ‘trample, step on,’ Proto-Uralic **mene* ‘go, travel,’ Yukaghir *mǎn-* ‘jump,’ Old Turkish *man-* ‘a step,’ Tartar *maŋ da* ‘run,’ Kamchadal *emeneŋ* ‘a step’ = AMERIND **mina* ‘go,’ Santa Ana *īma* ‘go!,’ Chitimacha *?ami* ‘go, go away,’ Kalapuya *maʔa* ‘come,’ Wappo *mi* ‘go,’ Taos *mē* ‘go,’ Proto-Uto-Aztecan **mi* ‘go,’ Bribri *mina* ‘go,’ Rama *mang* ‘go!,’ Matanawi *amĩ* ‘go!,’ Colorado *mai* ‘go,’ Araucanian *-me-* ‘go to . . .,’ Pehuenche *amu* ‘walk,’ Auake *ma* ‘walk,’ Yuracare *ama* ‘come!,’ Mosesten *mii* ‘go, walk,’ Chulupi *ma* ‘go,’ Umotina *a-menu* ‘go,’ Proto-Ge **mō(r)* ‘go, walk,’ Dalbergia *mū* ‘go,’ Kamakan *emang* ‘go.’ [IS 350, N 295; E WALK; A 126]

28. NOSTRATIC **mā* ‘we inc.,’ Proto-Afro-Asiatic **m(n)* ‘we inc.,’ Proto-Kartvelian **m-* ‘we inc.,’ Proto-Indo-European **me-s* ‘we,’ Proto-Uralic **mā-/me-* ‘we,’ Yukaghir *met* ‘I,’ *mit* ‘we,’ Proto-Dravidian **mǎ* ‘we,’ Proto-Altaic **bā-* ‘we ex.’ (oblique *mā-n*), Gilyak *me-ǧi* ‘we-2,’ *me-r* ‘we,’ Chukchi *muri* ‘we,’ Chukchi *-m* ‘let us,’ Aleut *-man/s* ‘we’ = AMERIND **ma* ‘we inc., we,’ Tsimshian *-m* ‘we,’ Takelma *-am* ‘us,’ Yokuts *ma-k* ‘we 2 inc.,’ *ma-i* ‘we inc.,’ Rumsien *ma-k* ‘we,’ Mutsun *mak-se* ‘we,’ Coast Miwok *mā* ‘we,’ Yuki *mī* ‘we inc.,’ Santa Cruz Chumash *miči* ‘we,’ Yavapai *magi* ‘we,’ Maratino *miŋ*

‘us,’ Cuitlatec *moguelo* ‘we,’ Chimu *mæ-ič* ‘we,’ Cahuapana *moki* ‘we,’ Sabela *-mōni* ‘we,’ Amaguaje *may* ‘we,’ Siona *may* ‘we,’ Yupua *-mai-* ‘we,’ Cubeo *mahe* ‘we,’ Särä *mani* ‘we,’ Desana *mari* ‘we,’ Tucano *mani* ‘we,’ Barasano *màñí* ‘we inc.,’ Muinane *-mo* ‘our,’ Macuni *mamai-aičohm* ‘we,’ Came *em* ‘we.’ [N I:6; E G1; A G3]

29. NOSTRATIC **mo* ~ **mu* ‘this, he, other,’ Proto-Afro-Asiatic **m(w)* ‘they, this, he,’ Proto-Kartvelian **m(a)-* ‘this, he,’ Proto-Indo-European **mo-* ‘he, this,’ Proto-Uralic **mū-/mō-* ‘other,’ Proto- Altaic **bū/bō* ‘this’ (oblique *mu-n*) = AMERIND **mo* ‘that, he, the,’ Maidu *mi* ‘he,’ *mō* ‘that one,’ *mi* ‘this, that,’ Atakapa *ma* ‘that,’ Proto-Algic **m-* (impersonal possessor), Proto-Uto-Aztecan **mo-* ‘himself,’ Taos *mo-* ‘himself,’ Guarani *amo* ‘that,’ Arara *mo* ‘he,’ Barama *mo(-ko)* ‘he, she,’ *mo(-ro)* ‘it,’ Waiwai *moro* ‘that one,’ Moseten *mo* ‘that, he,’ Chama *ma-* ‘that,’ Northern Cayapo *amu* ‘he,’ Guato *ma-* (stage III article). [N 303; A G14]

30. EURASIATIC **mu(s)* ‘fly, gnat,’ Afro-Asiatic: Musgu *ammumi* ‘bee,’ Gidder *amama* ‘bee, honey,’ Chibak *məme* ‘honey,’ Iznacen (*θ*)*ammem(θ)* ‘honey,’ Proto-Indo-European **mū(s)-* ‘fly, gnat,’ Ainu *mose/moš* ‘fly, nettle,’ Japanese *musi* ‘insect, bug, worm’ = AMERIND **mumu/mumi* ‘bee, fly,’ Chemakum *muumuuma* ‘bee,’ Proto-Central Algonquian **amoa* ‘bee,’ Bella Coola *mamis* ‘fly,’ Molala *mumu-s* ‘fly,’ Santa Cruz *mumuru* ‘flies,’ Natchez *mom* ‘bee,’ Huave *muam* ‘bee,’ Esselen *mumirux* ‘flies,’ Salinan *le-me’m* ‘bee, wasp,’ Proto-Uto-Aztecan **mumu/meme* ‘bee,’ **mu* ‘fly,’ Tucano *mumi* ‘bee, honey,’ Maku *mime* ‘bee,’ Bororo *muiawo* ‘bee,’ Northern Cayapo *amiu* ‘wasp.’ [E GNAT₁; A 27, AK 79, MG 117]

- The Afro-Asiatic forms are taken from Greenberg (1963: 52).

31. NOSTRATIC **na* (locative), Proto-Afro-Asiatic **-n* (locative), Proto-Kartvelian **-n* (locative), Proto-Indo-European **en/n̄* (locative), Proto-Dravidian **-n(λ)* (locative), Proto-Uralic **-na/-nä* (locative), Yukaghir *pure-n* ‘above,’ *ho-n* (< **ko-n*) ‘where,’ Proto- Altaic **-na* (locative), Korean *anh* ‘inside’ (n.), Japanese *asa-na* ‘in the morning,’ Ryukyuan *-ni* ‘in,’ Ainu *na-k-an* ‘whither,’ *rik-un* ‘above,’ Gilyak *-n* (locative), Aleut *-an* (locative) = AMERIND **na* ~ **ni* (locative); examples of this affix are seen in the Amerind citations in etymologies 10 and 17 in Chapter 14, in conjunction with the *k-* and *m-* interrogatives, with the resultant meaning of ‘where’ or ‘when.’ [N I:11; E G30; A G47]

32. NOSTRATIC **NA* ‘this, that, he,’ Proto-Afro-Asiatic **n(j)* ‘this,’ Proto-Kartvelian **-n* ‘he,’ Proto-Indo-European **ne-/no-* ‘this,’ Proto-Uralic **nλ-* ‘this,’ Proto-Dravidian **nă* ‘this’ = AMERIND **na* ~ **ni* ‘this, that, he, here,’ Paez *ana* ‘this,’ Colorado *ne* ‘he,’ Choco *nan* ‘that,’ Yahgan *-n* ‘his,’ Quechua *-n* ‘his,’ Kahuapana *nana* ‘he,’ Amuesha *ñā* ‘he,’ Yuracare *na* ‘that, he,’ Suyá *ni* ‘this,’ Arazaire *nina* ‘here,’ Galibi *ini* ‘this,’ Wayana *ine* ‘he.’ [N 332; A G15]

& G23]

33. NOSTRATIC *-NA (plural of animate nouns), Proto-Afro-Asiatic *-ān (plural of animate nouns), Proto-Kartvelian *-en/-n (plural of animate nouns), Proto-Uralic *-N₁ (plural), Proto-Altaiic *-na/-nā (plural of animate nouns) = AMERIND *na (plural, especially of pronouns and nouns referring to humans), Kagaba *nas-an* 'we' (cf. *nas* 'I'), Lenca *ana-nan* 'they' (cf. *ina* 'he'), Zaparo *ka-na* 'we' (cf. *ka* 'I'), Jebero *-nøŋ-na* 'their' (cf. *-nøŋ* 'his'), Yamana *sa-n* 'you' (cf. *sa* 'thou'), Aguaruna *-na* (plural subj. of a verb), Tiquié *nā* 'they, their,' *na-* (plural of demonstratives and human nouns), Canichana *-na* (plural of human nouns). [N 333; A G30]

34. NOSTRATIC **ńang* 'tongue,' Proto-Kartvelian **nina/ena* 'tongue,' Proto-Indo-European **dn̥ǵhū/jn̥ǵhū* 'tongue,' Proto-Dravidian **nanc-* 'lick,' Proto-Uralic **ńajkč* 'tongue,' = AMERIND **ñene* 'tongue,' Maidu *ʔení* 'tongue,' Proto-Uto-Aztecan **neni* 'tongue,' Allentiac *nanak* 'tongue,' Millcayac *nanat* 'tongue,' Tschaawi *nenera* 'tongue,' Jebero *ninra* 'tongue,' Cahuapana *ninegla* 'tongue,' Tucano *nene* 'lick,' Saliba *nene* 'tongue,' Machiguenga *-nene* 'tongue,' Guaraní *ñẽʔẽ* 'tongue,' Bare *nu-nene* 'tongue,' Ipurina *ne-nene* 'tongue,' Campa *anene* 'tongue,' Wapishana *ninuk* 'tongue,' Kariri *nunu* 'tongue,' Dzubucua *ñunu* 'tongue,' Kamaru *nunuh* 'tongue,' Wayoro *o-nyon* 'tongue,' Shuara *inẽ* 'tongue,' Taparita *yonan* 'tongue,' Tacana *yana* 'tongue,' Cavineña *yana* 'tongue,' Conibo *ana* 'tongue,' Chacobo *hana* 'tongue,' Proto-Ge **ñō-to* 'tongue,' Apinage *ñō-to* 'tongue,' Chavante *da-non-to* 'tongue,' Cayapo *ñō-to* 'tongue,' Came *none* 'tongue,' Apucarana *ñoñe* 'tongue,' Arikapu *i-nontā* 'tongue,' Camacan *nāñčo-nenkix* 'tongue.' [N I:18; A 256, A 258]

35. NOSTRATIC **ńiK*'a 'neck vertebra, neck,' Proto-Uralic **ńika* 'vertebra, neck,' Selkup *nukka* 'nape of the neck,' Proto-Altaiic **ńika-* 'neck vertebra, neck,' Khalkha *nugas(-an)* 'spinal cord' = AMERIND **nuq* 'neck, throat, swallow,' Kwakwala *nəqwa* 'swallow,' Nootka *n'ofaq-* 'swallow,' Tutelo *-nūk-sāʔ* 'nape' (= 'neck-back'), Oneida *-nuhs-* 'shoulder,' North Sahaptin *nuq'*-*waš* 'neck,' Klamath *n'awqs* 'throat,' Proto-Muskogean **nukk^wi* 'neck,' Creek *nokwv* 'neck,' Hitchiti *nōkbebe* 'neck,' Natchez *naxts* 'throat,' Alabama *nokbi* 'throat,' Huave *onik* 'neck,' Chorti *nuk* 'neck,' Huastec *nūk* 'neck,' Tzotzil *nuk* 'neck,' *nuk'ulal* 'throat,' Kekchi *nuk* 'swallow,' Tequistlatec *nuk* 'swallow,' Salinan (*p-*)*ēnik*'a 'throat,' Boncota *anokua* 'nape,' Tegria *anokua* 'nape,' Desano *wi-nigĩ* 'neck,' Tucano *vee-nexko* 'neck,' Siona *naxe-seamu* 'nape' (= 'neck-back'), Pioje *naxe-mu* 'neck,' Coto *njaxe-teka* 'nape, throat,' Curiari *nōhūi* 'neck,' Proto-Arawakan **nuki* 'neck,' Piro *noxí* 'neck,' Waraquina *nokane* 'nape,' Carutana *nouxé* 'nape,' Waimare *nukuluaka* 'throat,' Tacana *enaha* 'neck,' Andoke *ka-ñekkhə(ii)hih* 'neck.' [N 330; A 255]

• In the Nostratic languages cited by Illich-Svitych (1976: 92), the first vowel is *i* in some forms, *u* in others. In his reconstruction of the Proto-

Nostratic form, Illich-Svitych chose *i*. The Amerind family—an outgroup to Nostratic—indicates that the original vowel was *u*, and typological considerations would also favor deriving *i* from *u*, rather than vice versa.

36. NOSTRATIC **na* ‘we ex.,’ Proto-Afro-Asiatic **naḥnu* ‘we ex.,’ Proto-Kartvelian **naj* ‘we ex.,’ Proto-Indo-European **ne-/nō* ‘we,’ Proto-Dravidian **nām* ‘we inc.,’ Korean *na* ‘I,’ Ainu *en* ‘me,’ Gilyak *ní* ‘I,’ *ní-te* ‘we-2,’ *ní-ka* ‘we’ = AMERIND **na* ‘we ex., we, I,’ Nootka *newa* ‘we,’ Santa Ana Keres *hinu* ‘I, we,’ Proto-Algonquian **ne-* ‘I,’ Tsimshian *n-* ‘I,’ Nez Perce *na* ‘we,’ Siuslaw *na* ‘I,’ Yokuts *naʔ* ‘I,’ Huave *-na-* ‘I,’ Karok *na* ‘I,’ Comecrudo *na* ‘I,’ Cotoname *na* ‘I, we,’ Proto-Aztec-Tanoan **neʔ* ‘I,’ Kiowa *nā* ‘I, we,’ Mixtec *n-* ‘I, we ex.,’ Popoloca *n-* ‘I, we ex.,’ Chinantec *n-* ‘I, we,’ Cuna *an* ‘I,’ Move *nu* ‘we,’ Rama *na* ‘I,’ Xinca *ni* ‘I,’ Kagaba *nau* ‘our,’ Guamaca *nabi* ‘we,’ Norteño *nu* ‘we,’ Bintucua *nan* ‘I,’ Timucua *ni-* ‘I,’ Guambiana *na* ‘I,’ Jaqaru *na-* ‘I,’ Yehubde *en* ‘we,’ Papury *yn* ‘we,’ Taulipang *ina* ‘we,’ Cariniaco *naana* ‘we,’ Galibi *ana* ‘we,’ Macusi *ana* ‘we,’ Proto-Panoan **no* ‘we,’ Mataco *no-* ‘my,’ *na-* ‘our ex.,’ Vejoz *no* ‘our ex.,’ Pilaga *ien* ‘we,’ Guenoa *an-* ‘our,’ Vilela *nati* ‘we.’ [N I:7; E G3; A G1]

37. NOSTRATIC **ońe* ‘hand,’ Proto-Uralic **ońe* ‘hand, handmade,’ Proto-Altaiic **uńa* ‘obedient’ = AMERIND **ʔoni* ‘hand,’ Nootka *hinī* ‘give,’ Kutenai (*ahq-*)*ʔān* ‘handle,’ Proto-Central Algonquian **-en* ‘by hand,’ Potowotami *-in* ‘by hand,’ Ojibwa *-in* ‘by hand,’ Blackfoot *-in-* ‘hand,’ Wiyot *an-* ‘by hand,’ Tuscarora *-ʔehn-* ‘hand,’ Onondaga *hōnia* ‘finger,’ Mohawk *-aʔnye-* ‘hand,’ Seneca *ʔnya* ‘hand, finger,’ Tsimshian *an’ōn* ‘hand,’ Chinook *āyana* ‘hand,’ Takelma *oyon* ‘give,’ North Sahaptin *-ni-* ‘give,’ Nez Perce *-ni-* ‘give,’ Modoc *ney* ‘give,’ Lake Miwok *hiina* ‘give,’ Seri *ʔanol* ‘hand, finger,’ Proto-Central Otomi **ʔuni* ‘give,’ Timucua *huena* ‘hand,’ Mariusa *uhnä* ‘hand,’ Mura *haneai* ‘hand,’ Quechua *ayni* ‘lend,’ Yuri *-enoo* ~ *-unoo* ‘hand,’ Masaca *inæ* ‘finger,’ Ubde-Nehern *nooi* ‘give,’ Marahan *nonooi* ‘give,’ Amaguaje *hente* ‘hand,’ Siona *ente* ‘hand,’ Ticuna *hēntē* ‘hand,’ Proto-Nambikwara **ō* ‘give,’ Sabane *ʔō* ‘give,’ Uru *ona* ‘give,’ Kariri *una* ‘share,’ Callahuaya *jiana* ‘give,’ Taparita *yonga* ‘hand,’ Ocaina *onu* ~ *honōho* ‘hand,’ Kaliana *ay-eña-li* ‘finger,’ Jaricuna *uiena* ‘hand, finger,’ Macushi *uy-enθa* ‘hand, finger,’ Opone *ñeñe-taratara* ‘finger,’ Umaua *yēnyale* ‘hand,’ *yenya-gamulu* ‘finger,’ Galibi *yenarari* ‘hand,’ Acawai *y-enna-ru* ‘hand,’ Carare *ñiñae* ‘hand,’ Proto-Panoan **ʔinā* ‘give,’ Panobo *inai* ‘give,’ Shipibo *hinahue* ‘give me,’ Amahuaca *inanki* ‘give,’ Toba *ane* ‘give,’ Mocovi *yanni* ‘give,’ Chulupi *anhyut* ‘give,’ Lule *ni* ‘give,’ Kaskiha *nēen-gi-ma* ‘give,’ Mosesten *uñ* ‘hand,’ Proto-Ge **ñi-kra* ‘hand,’ Suya **ñi(-ko)* ‘hand,’ Came *ningue* ‘hand, finger,’ Palmas *niŋge* ‘hand,’ Catarina *ñonem* ‘give,’ Botocudo *en-ti* ‘give,’ Otuke *i-yuna* ‘finger,’ Opaie *e-ĩnye* ‘hand,’ Mashubi *ni(-ka)* ‘hand.’ [IS 362; A 138]

38. NOSTRATIC **p’äk’l* ‘hot, roast,’ Proto-Indo-European **pek^w* ‘roast, boil,

cook,' Proto-Uralic **päkkä* 'hot,' Yukaghir *pugolet* 'warm' (v.), Proto-Altaic **päkü* 'hot,' Nanai *peku* 'hot,' Korean *pokk-* 'roast,' Japanese *wak-* (< *bak*) 'boil,' Koryak *pəγpəγ* 'boil,' Kamchadal *p'axp'aj* 'boiled jukola,' Kuskokwim *puq̄tla* 'heat' = AMERIND **pek'u* 'burn, hot,' Proto-North Wakashan **px-* 'warm (v.), hot,' Kwakwala *pəx* 'heat' (v.), Squamish *p'ac'* 'hot,' ?Chippewa *čibákwe* 'cook,' ?Ojibwa *t^sipäkkwe* 'cook,' Modoc *puk* 'cook,' Takelma *bok'o-bax* 'boil,' Lake Miwok *bok-* 'boil,' Chitimacha *pāči* 'roast, fry,' Atakapa *wak* 'roast,' Tzotzil *bak'ubel* 'roast,' *vok-* 'boil,' Achomawi *poxpoxʔus* 'boil,' East Pomo *p^ha-* 'cook,' North Pomo *p^hā* 'cook,' Kashaya *hp^ha* 'bake,' Walapai *pak* 'boil,' Comecrudo *pakiap* 'boil, cook,' Tlappanec *bahi* 'boil,' Yurumangui *baka-isa* 'heat' (v.), Tewa *p'ahāŋ* 'be burnt,' Tübatulabal *wāʔ* 'broil,' Cayapa *būke* 'boil,' *bextsu* 'toasted,' Itonama *baʔi* 'bake,' Catio *bakoi* 'roast,' Eten *pokeiñ* 'hot,' Atacameño *bočon* 'heat,' Guambiana *pačig-* 'hot,' Bribri *pat^e* 'kindle,' Paya *pas* 'kindle,' Sumu *buswi* 'burn,' Yahgan *pūkū* 'burn, cook,' Yamana *amux-puka* 'cook,' Barasano *péka* 'fire,' Capishana *peikärä* 'roast,' Siona *poho* 'roast,' Ubde-Nehern *puhuitums* 'boil,' ?Marahan *woχyoi* 'boil,' Waiana *pekkume* 'burn,' Puinave *abag* 'roast,' Tuyoneri *epak* 'burn,' Cayuvava *boko* 'hot,' Yuracare *boče* 'burn,' Kulina *puku* 'hot,' Karif *abuga-dina* 'roast,' Callahuaya *-ppoke-na* 'roast,' Wayoro *pukwa* 'burn,' Guayaki *^mbaku* 'cook, heat,' ?Witoto *peiche* 'roast,' Vejoz *pokue* 'roasted,' Pilaga *apakata* 'hot,' Amahuaca *hobake* 'cook,' Cavineña *baho* 'roast,' Botocudo *pek* 'burn,' *apok* 'roast,' Karaho *puk* 'burn,' Erikbatsa *okpog(-maha)* 'burn,' Caraho *hepuk* 'burn.' [IS 337; E HOT₁ & ROAST₁; CP 105 & 109, MG 18]

39. NOSTRATIC **p'alʼʼ* 'burn,' Proto-Indo-European **pelH-/pleH-* 'burn,' Proto-Uralic **paʼʼa-* 'burn,' Yurak *parada* 'burn up,' Yukaghir *par* 'cook,' Proto-Dravidian **paʼʼa-* 'sparkle,' Korean *pul* 'fire,' Ainu *parase* 'burn,' Gilyak *paru* 'catch fire' = AMERIND **pale* 'burn, fire,' Nootka *pat^l* 'flaming, lit up,' Nez Perce *ipalataksa* 'roast,' Patwin *wala* 'burn' (intr.), Chol *pulem* 'burn,' San Miguel Salinan (*p*)*ōt* 'toast,' Yuma *ʔapilⁱ* 'burn' (intr.), Diegueño *upil* 'burn' (intr.), Akwa'ala *ipil* 'burn,' Isleta *p^haʔ* 'burn,' Tarascan *apare* 'burn,' Kagaba *pula* 'burn, roast,' Ulua *balpat^{si}* 'burn,' Guatuso *cue-pala* 'fire,' Paya *piri-ha* 'toast,' Itonama *u-bari* 'fire,' Catio *pureai* 'burn,' Cayapa *biriju* 'roast,' Yamana *apurū* 'roast,' Quechua *wala* 'burn,' Aymara *pari* 'hot,' Qawashqar *obillia* 'burn,' Yupua *pilo* 'fire,' Tsöla *heobale* 'roast,' Chirango *tsoebali* 'roast,' Waiana *paale* 'roast,' Yuracare *pele* 'burn,' Arikem *pureo-ipapa* 'cook,' Chayma *ipura* 'roast,' Jaricuna *ipuruda* 'roast,' Surinam *pūru* 'roast,' Guarapuava *poro* 'burn,' Puri *mbori* 'burn.' [IS 337; E BURN₁; A 115]

40. NOSTRATIC **p'atʼʼ* 'foot, footstep,' Proto-Afro-Asiatic **pt-* 'go, leave,' Proto-Indo-European **pēd/pōd* 'foot, footsteps,' Proto-Dravidian **paʼʼʼ* 'footsteps, palm,' Uralic: Ziryian *pod* 'foot, sole,' Ostyak *petta* 'sole,' Proto-Altaic **p'ad-ak* 'foot, footsteps,' Korean *padak* 'bottom, sole,' Koryak *apt-* 'kick' =

AMERIND **pati* ‘foot,’ Zuni *pačči* ‘sole,’ Klamath *peč* ‘foot,’ Lutuami *pat^s* ‘foot,’ Maidu *paji* ‘foot,’ Santa Clara (*či-*)*pai* ‘foot,’ Quinigua *boi* ‘deer’s foot,’ Tewa *po* ‘leg,’ Maku (*t^se-*)*peči* ‘shin,’ Puinave (*a-*)*ped* ‘shin,’ Ticuna *para* ‘tibia,’ Kariri *bui* ‘foot,’ Baure *poj* ‘foot,’ Andoke *pa* ‘leg,’ Yabarana *petti* ‘thigh,’ Vilela *ape* ‘foot,’ Chiquito *piri* ‘leg,’ Proto-Ge **par* ‘foot,’ Opaie (*či-*)*para* ‘foot,’ Arikapu (*ši-*)*pra* ‘foot,’ Botocudo *po* ‘foot, hand.’ [N 1:20; E FOOT₂; A 120, MC 66]

41. NOSTRATIC **p’at’* ‘wide,’ Proto-Afro-Asiatic **pt’-/pt-* ‘wide, to open,’ Proto-Indo-European **pet(H)-* ‘wide, to spread,’ Proto-Dravidian **pāt(t)A* ‘plot of land,’ Proto-Altaic **pata-* ‘field,’ Ainu *para* ‘broad, flat,’ *pira* ‘open, spread out,’ Korean *pāl-* ‘become broad,’ Old Japanese *pīrō-i* ‘broad,’ Gilyak *p’al-* ‘floor,’ Kamchadal *p’(ǎ)l-xaŋ* ‘cheek’ = AMERIND **pat’* ‘a broad, flat,’ Haisla *pat’* ‘à flat,’ Bella Bella *bāt’* ‘a fathom, span,’ Proto-Salish **pAt’* ‘broad,’ Nisqualli *as-pel* ‘broad,’ Shuswap *c-pet* ‘spread out,’ Yurok *pel* ‘broad,’ Wiyot *bel* ‘flat, wide,’ Proto-Siouan **p-ra* ‘flat, broad,’ Biloxi *palači* ‘broad,’ Chiwere *blaθge* ‘flat,’ Tsimshian *baʔ* ‘broad,’ Nass *baʔ* ‘spread out’ (v.), Wishram *opēd’* ‘stretch out,’ Gashowu *phal* ‘spread out,’ Yawelmani *palin* ‘flat,’ Maidu *batbatpe* ‘flat, planar,’ Southern Sierra Miwok *ʔappāle* ‘broad,’ Lake Miwok *pat’-* ‘flat,’ Koasati *patha* ‘broad,’ Alabama *pat’* ‘a broad,’ Natchez *patha* ‘broad,’ Tunica *pāl* ‘flat,’ Yana *-dʔpal-* ‘flat,’ North Pomo *bado* ‘flat,’ San Antonio Salinan (*p*)*elet’o* ‘open,’ Kiliwa *pataj* ‘broad,’ ?Cocopa *ʔaʔ* ‘broad,’ Comecrudo *papol* ‘flat,’ Quinigua *patama* ‘broad,’ Tequistlatec *ešpat’s’gi* ‘broad,’ Mono *papa-haanoh* ‘broad,’ Ulua *pap-* ‘opened on,’ Timucua *pal-no* ‘open,’ Quechua *palta* ‘broad,’ Yamana *patux* ‘flat country,’ Yahgan *patuk* ‘flat,’ Otomi *pappar* ‘broad,’ Guahibo *patajuobi* ‘open,’ Uru *p’ala* ‘broad,’ Callahuaya *ppejra* ‘broad,’ Wapishana *ibar* ‘flat,’ Muinane *aparide* ‘open,’ Ocaina *t’ja-pīra* ‘you open it,’ Toba Guazu *pateta* ‘flat,’ Tacana *pai* ‘flat,’ Capasho *pato* ‘broad,’ Ramkokamekran *ipoti* ‘broad.’ [IS 372; E BROAD; A 52]

42. NOSTRATIC **pita* ‘hold,’ Proto-Indo-European **pěd/pōd-* ‘seize, hold,’ Proto-Uralic **pitä* ‘hold,’ Proto-Dravidian **pitA-* ‘hold, seize,’ Korean *pat* ‘receive,’ Japanese *wata-s-* ‘receive,’ Chukchi *pir-i-* ‘carry,’ Aleut *hid-u-sa-* ‘carry away’ = AMERIND **pitu* ‘hand, hold,’ Abenaki *u-pedi-n* ‘his arm,’ Pawnee *pīd/pīru* ‘arm,’ Chinook *pote* ‘arm,’ Yokuts *p’uṭ’ong* ‘hand, arm,’ Proto-Muskogean **put* ‘touch,’ Choctaw *potoli* ‘handle, feel, touch,’ Kalapuya *putukwi* ‘arm,’ Wappo *pito* ‘touch,’ Alabama *pota* ‘take.’ [IS 339; E SEIZE₁; AK 203, P 99, 243 & 260]

43. NOSTRATIC **p’oja* ‘child, baby,’ Proto-Uralic **pojka* ‘son,’ Proto-Altaic **pö-/pi-* ‘child, baby’ = AMERIND **p’oj* ‘(younger) brother,’ **p’ojp’oj* ‘older brother,’ Yurok *-pā* ‘brother,’ Lillooet *āpa* ‘older brother,’ ?Santa Ana *-w’i* ‘child,’ Proto-California Penutian **bē* ‘older brother,’ Foothill North Yokuts *p’aj* ‘baby,’ *p’ajeeʔ* ‘child,’ Maidu *p’ü* ‘boy,’ *p’übe* ‘son,’ Wappo *ʔepa*

‘older brother,’ Zuni *papa* ‘older brother,’ Achomawi *apo* ‘brother,’ Atsugewi *pupa* ‘brother,’ ?Yana *p’auʔni* ‘son,’ Shasta *ʔapu* ‘older brother,’ Konomihu *epput-* ‘brother,’ Washo *-peyu* ‘younger brother,’ San Miguel Salinan *apēu* ‘brother,’ Salinan *pepeʔ* ‘brother,’ Taos *p’ay-na* ‘younger brother,’ *popo-na* ‘older brother,’ Tewa *bibi* ‘brother,’ Kiowa *pabi* ‘brother,’ San Ildefonso *ep’i* ‘infant,’ Proto-Uto-Aztecan **pa* ‘brother,’ Mono *papi* ‘older brother,’ Kuwaisu *pabi-ne* ‘older brother,’ Proto-Oto-Manguean **po* ‘younger brother,’ **papi* ‘older brother,’ Cacaopera *pai-ka* ‘older brother,’ Shiriana *aba* ‘older brother,’ Chumulu *pava* ‘brother,’ Sabanero *pabaligu* ‘brother,’ Cuaiquer *paijpa* ‘son,’ Nonama *hamupui* ‘brother,’ Matanawi *upi* ~ *opi* ‘brother,’ Atacameño *aba* ~ *bija* ‘son,’ Tehuelche *abbo* ‘boy, child,’ Kolan *pua-* ‘brother,’ Tuwituwey *bibi* ‘younger brother,’ Yahgan *pepe* ‘child,’ Cahuapana *babi* ‘child,’ Papury *pui* ‘younger brother,’ Waikina *baĩ(-ga)* ‘brother,’ Muncie *ye-baę* ‘younger brother,’ Ticuna *buʔĩ* ‘child,’ Tucano *po* ‘child,’ Yuracare *pe* ‘younger brother,’ *pi* ‘older brother,’ Kariri *popo* ‘older brother,’ Dzubucua *popo* ‘older brother,’ Kamaru *popo* ‘older brother,’ Chamacoco *pab* ‘child,’ Turaha *pab* ‘child,’ Ebidoso *pab* ‘son,’ Paumari *ibaii* ‘son,’ Emerillon *paa* ‘older brother,’ *pĩ* ‘child,’ Arikem *opaira* ‘son,’ Hishcariana *pepe* ‘older brother,’ Yagua *poen* ‘son,’ *rai-puipuin* ‘brother,’ Peba *pwĩĩ* ‘brother,’ Taulipang *pipi* ‘brother,’ Pavishana *upi* ‘brother,’ Accawai *poĩto* ‘boy,’ Proto-Panoan **poi* ‘sibling of opposite sex,’ Shipibo *pui* ‘brother,’ Caripuna *pui* ‘brother,’ Pacawara *eppa* ‘brother,’ Proto-Tacanan **bui* ‘son, daughter,’ Mosenen *voji* ‘sister,’ *voji-t* ‘brother,’ Mascoy *poije* ‘my son,’ Botocudo *po* ‘brother,’ Guato *be* ‘son,’ Kaingan *ve* ‘sibling,’ Umotina *abu* ‘older brother.’ [IS 360; E CHILD₂; A 53]

- Amerind shows the semantic innovation CHILD > BROTHER, with subsequent development of a contrast between plain and reduplicated roots, **p’oj* ‘younger brother’ vs. **p’ojp’oj* ‘older brother,’ as seen most clearly in the Taos examples above.

44. EURASIATIC **pol* ‘dark,’ Proto-Indo-European **pel-/pol-* ‘pale, gray,’ Proto-Uralic **pil’ma* ‘dark,’ Old Turkish *boz* ‘gray,’ Mongolian *bora* ‘gray,’ Buriat *balay* ‘dark,’ Manchu *balu* ‘blind,’ Gilyak *polm* ‘make blind,’ Chukchi *pylm* ‘dark,’ *pylmatyk* ‘become dark’ = AMERIND **pol* ‘black,’ Seri *ko-opoʔ* ‘black,’ Yana *pal* ‘black,’ Karankawa *pal* ‘black,’ Cuna *polea* ‘be dark,’ Tarascan *vera-* ‘dark,’ Cuitlatec *puluši-li/puruši* ‘black,’ Ulua *bara* ‘black,’ Itonama *bola* ‘shadow,’ Tehuelche *epoln* ‘black,’ Patagon *apula* ‘night,’ Qawasqar *pal* ‘black,’ Capixana *vorone* ‘black.’ [E DARK₁; A 37, CP 18]

45. NOSTRATIC **p’učA* ‘body hair, down, feathers,’ Proto-Kartvelian **pačw-* ‘body hair, feather,’ Proto-Indo-European **pous-* ‘down, body hair,’ Proto-Uralic **pučA* ‘down’ = AMERIND *p’ut^{li}* ‘hair, feather, bird down,’ Bella Bella *pāt^{li}a* ‘feather,’ Kwakwala *p’aʔəm* ‘wool,’ ?Nootka *p’ayaʔ* ‘hair,’ Lower Fraser *st^{li}p’el’qən* ‘feather,’ Lummi *st^{li}p’el’qən* ‘feather,’ Coeur D’Alene *s-puʔt* ‘feath-

er,' Quileute *būʔku* 'hair,' Wiyot *bāʔ* 'hair,' Caddo *bāt* 'hair,' Tsimshian *p'əlk'wa* 'bird down,' Coos *wat*¹ 'feather,' Alsea *pəʔupəlu* 'feather,' Yaudanchi *paada* 'feather,' Wintu *p'it* 'feather,' Nomlaki *pute* 'feather,' Maidu *butú* 'hair,' Nisenan *butuj* 'feather,' Bodega Miwok *pútta* 'feather,' Plains Miwok *pútte* 'feather,' Lake Miwok *pottol* 'fur,' Clear Lake Yuki *p'oti* 'feather,' Wappo *pučiš* 'hair,' Atakapa *-puli* 'feathers,' Tunica *-puli* 'hair,' San Buenaventura Chumash *pakwan* 'hair,' Jicaque *pusus* 'feather,' Taos *p'o-na* 'hair,' Tewa *p'o* 'hair,' San Ildefonso Tewa *p^hō* 'hair,' Kiowa *phɔ-* 'hair, fur,' Proto-Uto-Aztecan **po* 'body hair,' Southern Paiute *pyh̄y* 'fur,' Ulua *butuka* 'body hair,' Sumu *butuni* 'pubic hair,' Nonama *paday* 'feather,' Choco *puda* 'hair,' Cítara *puda* 'hair,' Saija *puda* 'hair of head,' Tucura *puda* 'hair,' Chami *buda* 'hair,' Catio *buda* 'hair,' Waunana *pura* 'hair,' Eten *purr* 'feather,' Guambiana *pušug* 'hair,' Moguex *puču-guizik* 'hair,' Colorado *apiču* 'hair,' Quechua *p^huru* 'feather,' Aymara *phuyu* 'feather,' Cahuapana *ambolu* 'feather,' Tschaahui *amporo* 'feather,' Ubde-Nehern *pat* 'hair,' Dou *bata* 'head hair,' Papury *pad* 'hair,' Marahan *pat* 'hair,' Cubeo *pola* 'feather,' Palänoa *poali* ~ *poari* 'feather,' Waikina *poali* 'feather, hair,' Wanana *poali* 'feather,' Tucano *poali* ~ *poari* 'feather, hair,' Yupua *poa* 'feather,' Tuyuka *poa* 'feather,' Dyurumawa *poða* 'hair,' Cayuvava *pote* 'feather,' Campa *ibiti* 'feather, hair,' Ipurina *piti* 'feather,' Machiguenga *ibiti* 'feather,' Quitemo *ipati-ko* 'feather,' Saliba *pule* 'hair,' Kandoshi *poro* 'hair, feather,' Chamacoco *ilepori* ~ *lapole* 'feather,' Yaruro *puru* 'feather,' Otomi *päro* 'head hair,' Arawak *bala* ~ *bara* 'hair, feather,' Wayana *ipot* 'feather,' Jaricuna *ipo* 'feather,' Roucouyenne *īpoti* 'hair,' Cumanagote *ipotú* 'hair,' Aparai *ipoté* 'hair,' Waiwai *ke-poče* 'hair,' Chayma *ipot* ~ *ibot* 'hair,' Tamanaco *čipoti* 'hair,' Yabarana *čipotti* 'hair,' Apiaca *ire-put* 'hair,' Umana *putuhali* 'hair,' Urukueña *potuba* 'hair,' Witoto *ifote-say* 'hair,' Nonuya *ofotar(a)* 'hair,' Orejones *hupodiki* 'hair,' Galibi *apollire* 'feather,' Pavishana *ampulu* 'feather,' Pimenteira *uiu pariü* 'feather,' *baburi* 'hair,' Ocaina *tyafóoro* 'feather,' Surinam *pēri* 'hair,' Lule *pyly* 'feather,' Moseten *beire* 'dance feather,' Cashibo *puiči* 'feather,' Chacobo *pĩʔi* 'feather,' Shipibo *puei* 'feather,' Caripuna *poe* 'feather,' Panobo *bu* 'hair,' Mayoruna *pu* 'hair,' Conibo *bu* 'hair,' Cashinawa *bô* 'hair,' Pacawara *vo* 'hair,' Pitacho *epatoy* 'hair,' *potoitan* 'feather,' Macuni *potegneinang* 'feather,' Umotina *ibotoka* 'feather,' Krenye *ipry* 'feather,' Apinage *-niabru* 'arrow feather,' Guarapuava *preia* 'feather,' Bororo *parikko* 'feather,' *bu* 'hair,' Malali *pöe* 'feather,' Came *fere* 'feather,' Tibagi *fēre* 'feather.' [N 1:20; A 24, A 108, CA 45, EQ 42]

46. NOSTRATIC **p'uša* 'blow,' Proto-Indo-European **peus-* 'blow,' Proto-Uralic **puša-* 'blow,' Proto-Altaic **pusa-* 'blow' = AMERIND **put^si* 'blow,' Oowekyala *piʔs-ʔa* 'whistle,' Santa Ana Keres *pūt^sa* 'blow,' Biloxi *pūsuh* 'blow,' Coos *pəš* 'blow,' Central Sierra Miwok *pušəl* 'mouth,' Northern Sierra Mi-

wok *pūče* ‘mouth,’ Chukchansi *p^hōso?* ‘blow,’ Yahi *pus-* ‘blow,’ East Pomo *pušul* ‘blow,’ Cocopa *pšux* ‘blow,’ Tipai *psul* ‘blow,’ Kiliwa *pisil* ‘blow,’ Tequistlatec *fušk-* ‘blow,’ Comecrudo *pasekiau* ‘blow,’ Taos *p^hut^{si}* ‘blow,’ Proto-Uto-Aztecan **put^s* ‘blow,’ Pipil *pitsa* ‘blow,’ Huichol *ipisiya* ‘blow,’ Itonama *i-pus-ne* ‘blow,’ Quechua *put^{su}* ‘blow,’ Aymara *p^husa* ‘blow,’ Tehuelche *xapš* ‘blow,’ Cholon *a-xeposan* ‘blow on the fire,’ Tambe *pezu* ‘blow,’ Tupy *o-pežu* ‘blow,’ Cumanagote *y-pizma-ze* ‘blow,’ Yagua *pəsató* ‘blow,’ Moseten *pisna* ‘blow,’ Amahuaca *pit^{si}* ‘blow.’ [IS 339; A 42, AK 26, H 17]

47. NOSTRATIC **qotⁱ* ‘fire, set on fire,’ Proto-Afro-Asiatic **ḥt⁻/ḥt⁻* ‘set on fire, catch fire,’ Proto-Indo-European **Hēt-* ‘fire, hearth,’ Proto-Dravidian **ot_Λ-* ‘kindle,’ Proto-Altaic **ōti* ‘spark, fire,’ Korean *tha* ‘burn,’ Gilyak *t’a* ‘burn,’ Proto-Eskimo **uuti-* ‘burn, boil, roast,’ Kuskokwim *ūtâ-* ‘burn,’ Aleut *ata* ‘burn’ = AMERIND **(?)oti* ‘fire; to burn,’ Proto-Keresan **ʔiri* ‘be hot,’ Acoma *idî* ‘fire,’ Seneca *aʔta* ‘fire,’ Blackfoot *ototo* ‘to burn’ (tr.), Wiyot *ad* ‘fire,’ *dōw* ‘burn,’ Proto-California Penutian **ʔitV* ‘roast,’ Proto-Uto-Aztecan **ta(h)i* ‘fire, to burn,’ Proto-Oto-Manguen **ntah* ‘warm, fever,’ Paez *ot^s* ‘burn,’ Tarascan *ete* ‘burn,’ Moseten *t^{si}* ‘fire,’ Proto-Tacanan **ti* ‘fire,’ Proto-Panoan **čiʔi* ‘fire,’ Fulnio *to* ‘burn,’ Caraja *hæote ~ eoti* ‘fire.’ [N 343; E BURN₄; A 112, P 192]

- Illich-Svitych (1967: 352) gave the reconstruction **Hot^ʔΛ*.

48. NOSTRATIC **t’ä* ‘this, that,’ Proto-Afro-Asiatic **t_Λ-* ‘this’ (fem.), Proto-Kartvelian **te-/ti-* ‘this, that,’ Proto-Indo-European **to-/te-* ‘this, that,’ Proto-Uralic **tâ-* ‘this,’ Yukaghir *tiŋ* ‘this,’ *taŋ* ‘that,’ Proto-Dravidian **tâ-* ‘this,’ Proto-Altaic **t’ä-* ‘that,’ Ainu *ta-p* ‘this,’ Kamchadal *tiʔ-n* ‘this,’ Chukchi *ət-lon* ‘he,’ *ət-ri* ‘they,’ Siberian Yupik *ta-na* ‘this’ = AMERIND **ta ~ *ti* ‘this, that, he⁵, Stage III article,’ Chumash *t-* (Stage III article), Proto-Algonquian **-t-* (fossilized article linking personal pronouns and vowel stems), Subtiaba *d-* (Stage III article), Proto-Mayan **t-* ‘he,’ Yupua *ti* ‘this,’ Tucano *toho* ‘that,’ Ona *ta* ‘he, they,’ Lule *tita* ‘he,’ *te* ‘this,’ Mataco *ta* ‘that,’ Cherente *ta* ‘he,’ Caraja *ti* ‘he.’ [N I:7; E G11; A G13]

49. NOSTRATIC **talH_Λ* ‘shoulder,’ Proto-Dravidian **tō!* ‘shoulder, upper part of the arm,’ Proto-Altaic **tālu* ‘shoulder, shoulder blade’ = AMERIND **ta(?)la* ‘shoulder,’ Nisqualli *talak^w* ‘shoulder,’ Songish *t’elaw* ‘wing,’ Musqueam *t^s’elε?* ‘breast,’ Quileute *taʔ* ‘heart,’ Shawnee *telja* ‘shoulder,’ Achomawi *tala* ‘shoulder blade,’ Salinan *itaʔl* ‘shoulder,’ North Yana *dul* ‘neck,’ Xinca *taʔi* ‘neck,’ Ulua *salax* ‘shoulder,’ Lenca *thala* ‘neck,’ Tarascan *teru(-nhe-kua)* ‘chest,’ Chimu *altærr* ‘neck,’ Catio *osorro* ‘throat,’ Proto-Carib **mootali* ‘shoulder,’ Uitoto *emodo* ‘back,’ Yagua *namatɔ* ‘shoulder.’ [IS 355; A 228,

⁵ As used here, ‘he’ represents a third-person singular pronoun, without regard to gender.

AK 32, H 77, CP 30 & 131, MC 59]

- In the Macro-Carib forms **mo-* appears to be the demonstrative discussed in No. 29 above.

50. NOSTRATIC **t'an*Λ 'chop off,' Proto-Indo-European **ten-* 'chop off,' Proto-Altaic **t'an*u 'chop off' = AMERIND *t'an* 'cut,' Blackfoot *no-toan* 'knife,' Squamish *tláč-tən* 'knife,' Seshault *læč'-tən* 'knife,' Nootsack *lač'-tn* 'knife,' Tillamook *huq-tən* 'knife,' Lillooet *x^wəčk-tən* 'knife,' Sierra Popoluca *taŋ* 'cut down,' Jicaque *t'i* 'chop,' Kiowa *t'ā* 'cut,' Isleta *t'ē* 'cut,' Towa *t's'a?* 'cut,' Proto-Oto-Manguean **Htaŋ* 'break, cut, knife,' Viceyta *tionko* 'cut,' Tucano *tune* 'break,' Movima *tan-na* 'cut,' Munduruku *t'ut'u* 'cut,' Nomachiguenga *tontimaro?* 'cut,' Botocudo *tan* 'break,' Coroado *tina(n)* 'knife.' [IS 352; CA 23]

51. NOSTRATIC **t'oga*Λ 'burn,' Proto-Afro-Asiatic **t'k^w* 'flame,' Proto-Indo-European **dheg^wh-* 'burn,' Proto-Uralic **tä*γΛ(*t*) 'fire,' Proto-Altaic **t'oga* 'fire,' Japanese *tuk* 'ignite, catch fire, burn,' *tak-* 'burn' (tr.), Gilyak *t'uḅř* 'fire' = AMERIND **t'ek'a/t'ok'a* 'burn,' Shuswap *t'ik* 'fire,' Bella Bella *t'iŋk'il* 'burn,' Kwakiutl *t^{sex}ja* 'kindle,' Lkungen *čukku* 'burn,' Kutenai *t^suk^w* 'start a fire,' Proto-Siouan **at^hex* 'burn,' Mohawk *-atek-* 'burn,' Huastec *tek* 'cook,' Tzotzil *tok'on* 'cooked,' Havasupai *tuka* 'burn,' Coahuilteco *tīxam(kō)* 'burn,' Warrau *doki-a* 'burn,' Timucua *toka* 'fire,' Colorado *tehe* 'firewood,' Natu *tika* 'burn,' Shukuru *itoka* 'burn,' Amarakaeri *taŋak* 'fire.' [IS 337; E BURN₃; A 54 & 251, AK 108]

52. NOSTRATIC **t'Omp*Λ 'protuberant, bulging, to swell,' Proto-Uralic **tumpa* 'protuberant, hill,' Cheremiss *tema* 'become full,' Hungarian *töm/tem* 'cram,' Yukaghir *čumu* 'all,' *čemei* 'finish,' Proto-Altaic **t'omp*(Λ) 'protuberant, to swell,' Old Turkish *tüm-* 'completely,' Manchu *tome* 'all,' Ainu *tumak* 'be humpbacked,' Korean *tam* (< Middle Korean *tɔm-*) 'all,' Japanese *tom* 'be rich in,' *tumu* 'heap,' Gilyak *tam* 'many,' Proto-Eskimo **tama* 'all,' Aleut *tamā* 'all' = AMERIND **tumpa* 'fill up, be full,' Cuitlatec *tīmpa* 'all,' Xinka *tumu* 'finish,' *tumuki* 'all,' Warrau *tobo* 'full,' Allentiac *topata* 'be full,' Cayapa *tuwa* 'full,' Move *debe* 'enough,' Motilon *tow* 'all,' Tucano *tubia* 'stop up,' Choroti *tipoi* 'be full,' Tacana *tupu* 'it reaches,' Lule *tump-s* 'finish,' Cavineña *tupu* 'enough.' [IS 335; E ALL₁; A 74, CP 83, MP 30]

53. NOSTRATIC **t'um*Λ 'dark,' Proto-Afro-Asiatic **t'(w)m* 'dark,' Proto-Indo-European **tem(H)-* 'dark,' Proto-Uralic **tum*Λ/*tüm*Λ 'opaque, dark,' Proto-Altaic **t'um*Λ- 'darkness, haze,' Korean *ətu(u)m* 'dark' = AMERIND **t'umak* 'dark, black, night,' Nootka *tum* 'black, dark,' Kutenai *tamoxu-int^s* 'be dark,' Yurok *t^smey* 'be evening,' Keres *t^s'amišt^j* 'dark,' North Sahaptin *č(ə)muk* 'black,' Nez Perce *tsimux-* 'black,' Klamath *č'mog* 'dark,' Yokuts *čimŋek* 'get dark,' Yaudanchi *čümgutān* 'black,' Wappo *sumūa?* 'evening,'

Huchnom *sūm* ‘night,’ Coast Yuki *sem* ‘night,’ Chitimacha *t^sima* ‘night,’ Atakapa *tem* ‘night,’ Koasati *tamōxga* ‘night,’ Mixe *t^soʔm* ‘night,’ Zoque *tsu?* ‘night,’ Sayula *tsuʔxit* ‘evening,’ Huastec *t^samul* ‘night,’ Chimariko *himok* ‘evening,’ Salinan *smak^{ai}* ‘night,’ Esselen *tumas* ‘dark,’ Seri *iʔamok* ‘night,’ Coahuilteco *čum* ‘night, evening,’ Jicaque *pox-tumo* ‘dark,’ Mono *tummuʔani-ki* ‘black,’ Cora *šumoa* ‘black,’ Mixtec *túú* ‘black,’ Amuzgo *matuma* ‘evening,’ Xinca *t^suma* ‘black,’ *čijmak* ‘night,’ Chiquimulilla *suʔmax* ‘black,’ Yupultepec *ts^yoma* ‘night,’ Chibcha *suameca* ‘evening,’ Miskito *timia* ‘night,’ Ayoman *tem* ‘black,’ Nonama *teamasi* ‘black, night,’ Catio *teamasi* ‘night,’ Araucanian *dumi* ‘dark,’ Jaqaru *č^{ama}* ‘nightfall,’ Papury *tyum* ‘night, evening,’ Hubde *čomai* ‘dark,’ Ubde-Nehern *čemmai* ‘night,’ Curiariai *čem* ‘night,’ Itene *tomi* ‘black,’ Caranga *sumči* ‘dark,’ Chipaya *somči* ‘dark,’ Callahuaya *thami* ‘dark, night,’ Kulina *dzome* ‘night,’ Urupa *etim* ‘night,’ Bakairi *tamaʔeneʔ* ‘black,’ Moseten *tomage* ‘dark’ (n.), *tomo* ‘night,’ Malali *aptom* ‘night,’ Chavante *tomanmara* ‘night,’ Chiquito *timimi-s* ‘evening.’ [N I:36; E DARK₃; A 76]

54. NOSTRATIC **t^upa* ‘spit,’ Proto-Afro-Asiatic **t(w)p* ‘spit,’ Proto-Kartvelian **t^uab-* ‘spit,’ Proto-Indo-European **pt(j)eu* (< **tp(j)eu-*) ‘spit,’ Proto-Dravidian **tupp-* ‘spit,’ Proto-Altaiic **t^upy-* ‘spit,’ Japanese *tuba(ki)* ‘spittle,’ Ainu *tupe/topse* ‘spit’ = AMERIND **tupa* ‘saliva,’ Tutelo *čəpā* ‘saliva,’ Keres *šupɨ* ‘I spit,’ Acoma *šúpə* ‘saliva,’ Laguna *šup^ušup* ‘spit,’ Patwin *tuba* ‘spit’ (v.), Choctaw *tufa* ‘saliva,’ Creek *tufkita* ‘spit’ (v.), Koasati *tufka* ‘spit’ (v.), Yucatec *tub* ‘saliva,’ Mam *tsup* ‘saliva,’ Tzotzil *tubal* ‘saliva,’ Quiché *č^ubinik* ‘saliva,’ Tewa *sóp^{oh}* ‘saliva,’ Nonama *ičituba* ‘spit’ (v.), Pehuenche *tufcun* ‘spit’ (v.), Saliba *čuva* ‘saliva,’ Wapishana *supit* ‘spit’ (v.), Urupa *çupe* ‘saliva,’ Culino *nasop^he* ‘his saliva,’ Witoto *tuva* ‘spit’ (v.), Moseten *čep* ‘saliva.’ [IS 354; E SPIT; AK 160]

55. NOSTRATIC **-t^uʌ* (causative), Proto-Afro-Asiatic **t^uʌ-/-t-* (reflexive), Proto-Dravidian **-tt-* (causative), Proto-Uralic **-tt-/-t-* (causative, reflexive), Yukaghir *-te-* (denominative), Proto-Altaiic **-t-* (causative), Korean *-t^{hi}* (causative), Japanese *-t* (causative), Ainu *-te* (causative), Gilyak *-d* (denominative), Chukchi *-et* (denominative), Kamchadal *t-* (causative), Eskimo *-ta/-ti* (causative), Aleut *-ti* (causative) = AMERIND *t(?)u* (causative), Seneca *-ʔ-* (causative), Keres *-tu* (makes actions out of statives), Wiyot *-at* (transitivizer), Salish *-t* (transitivizer), Kutenai *-n^t* (action by hand), Kwakwala *-d* (transitivizer). [N I:13; E G49; A G92]

56. NOSTRATIC **t^uʌʌ* ‘suitable, appropriate,’ Proto-Afro-Asiatic **t^ujb/t^uwb* ‘good, fragrant,’ Proto-Indo-European **dhabh-* (< **tabh-*) ‘suitable, appropriate’ = AMERIND **t^supa* ‘good,’ ?Nisqualli *tlob* ‘good,’ San Juan Bautista *tappan* ‘good,’ Yana *t^sup* ‘be good,’ Salinan *t^sep* ‘good,’ Coahuilteco *sap^{an}* ‘good,’ Eten *t^sup* ‘good,’ Guambiana *tabig* ‘good,’ Nadobo *čabe* ‘good,’ Coche *čaba* ‘good,’ Trumai *t^sipom* ‘good,’ Manao *sabi* ‘good.’ [IS 355; A 131]

57. NOSTRATIC *ʔejʌ ‘come, go,’ Proto-Afro-Asiatic *j ‘come,’ Proto-Indo-European *h₁ei- ‘go,’ Proto-Ugric *je(γ)- ‘come,’ Proto-Dravidian *ej- ‘arrive, approach,’ Proto-Altaic *i- ‘arrive, enter’ = AMERIND *jaʔ ‘go, come,’ Proto-Central Algonquian *jā ‘go,’ Upper Chehalis ja ‘road,’ Catawba jā ‘road,’ Wishram ja ‘go,’ Choctaw ia ‘go,’ Alesa jax ‘go,’ Tsimshian jē ‘go,’ Wappo -ja- ‘go,’ Karankawa je ‘go,’ Tonkawa jaʔa ‘several move,’ Washo ijeʔ ‘he goes,’ Yana aja ‘go,’ Proto-Aztec-Tanoan *ja ‘to go, carry,’ Proto-Oto-Manguean *(n)ja(n) ‘road,’ Motilon ja ‘walk,’ Timucua eje ‘road,’ Chibcha ie ‘road.’ [N 130; E GO; A 128]

• In Illich-Svitych (1967:357) the reconstruction was given as *je(Hʌ).

58. NOSTRATIC *ʔi/ʔe ‘this, he,’ Proto-Afro-Asiatic *j ‘this, he,’ Proto-Kartvelian *(h)i/(h)e ‘that,’ Proto-Indo-European *h₁ei-/h₁e- ‘this, he,’ Proto-Uralic *i-/e- ‘this,’ Proto-Dravidian *i/ē ‘this,’ Proto-Altaic *i-/e- ‘this, he,’ Korean i ‘this,’ Japanese *i-ma* ‘now,’ Ainu *i-* ‘his, him,’ Gilyak *i/e-* ‘his, him’ = AMERIND *(ʔ)i ‘he, this, the,’ Chinantec ʔi ‘he,’ Tewa ʔiʔ ‘he,’ Mono ʔi-hi ‘this,’ Borunca *i ~ iæ* ‘he,’ *j-* ‘his,’ Lenca *i(-na)* ‘he,’ *i-* (indef. obj.), Cuna *i-* (indef. obj.), Bribri *i-* (indef. obj.), Chiquito *i-* ‘his,’ Kraho *iʔ-* ‘his,’ Guarani *i-* ‘he, his.’ [N 1:8; E G8; A G12]

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