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SWADESH'S MACRO MIXTECAN HYPOTHESIS AND ENGLISH

CATHERINE A. CALLAGHAN AND WICK R. MILLER

RECENT YEARS have seen a renewed interest in the use of historical linguistics as a tool in determining prehistory, especially in cases where no early records exist. Consequently the linguist, when he concludes that certain languages are genetically related, assumes responsibilities towards historians, anthropologists, and others outside his immediate field. Since many of these people have not had the training necessary to evaluate the historical linguist's work, it is incumbent upon him to adhere as rigidly as possible to valid techniques.

In a recent article, Swadesh attempted to show genetic kinship among a very large number of American Indian languages.¹ This new grouping was examined extensively in a subsequent article by Longacre, who seriously questioned its validity on the basis of Swadesh's linguistic data.² In particular, he cited conflicting evidence from Amerindian languages which was not presented by Swadesh and instances of questionable analysis and faulty comparison in the material which Swadesh did present. Olmsted was also critical of Swadesh's grouping, especially in regard to the variety of reflexes he admitted in Mangué and Subtiaba for his starred, or reconstructed forms.³

Both Longacre and Olmsted assumed that the starred forms represented Proto Macro Mixtecan reconstructions based on the forms subsequently cited in the member languages. If this assumption is correct, Swadesh's article is open to criticism from another standpoint as well. Historical linguists usually choose words having the same or similar meanings in the different languages when they propose cognate sets, at least until they have determined the basic sound correspondences between these languages. Yet Swadesh admits wide semantic divergence even within the sets which he posits to justify grouping the Macro Mixtecan languages into a single family. He does not specify which types of semantic divergence he considers admissible within the same set, but most frequently it involves connecting a form having a certain "basic" meaning in one language with forms having different, often distantly related "basic" meanings in other languages, as in *khe/ke/qe/qhe, a reconstruction based on words meaning "blood, saliva, pus."⁴ Swadesh also admits many more unexplained alternations between similar phonemes than is common among historical linguists, as is apparent from the above reconstruction.⁵

1 Swadesh, 1960.

2 Longacre, 1961.

3 Olmsted, 1961.

4 Swadesh, pp. 96-97.

5 Longacre also makes these objections (1961, p. 25).

In this paper we hope to point out the dangers inherent in historical linguistics when one does not proceed with rigor. To this end, we have examined American English as though it had no written documents and have ignored all historical information that is known through Indo-European studies. In this respect, we are treating it exactly as an American Indian language, such as Zuñi, for example, must be treated. By allowing ourselves the same semantic latitude as Swadesh, and by carefully choosing the alternative which best fits the English form, we have been able to find English "cognates" for 48 of his 56 Macro Mixtecan reconstructions.⁶ Certain apparent sound developments emerge between Swadesh's reconstructions and the English forms cited, and these are discussed at the end of the article. Needless to say, they do not always coincide with the known history of English.

In the following set of etymologies we present first the Macro Mixtecan reconstruction as it appears in Swadesh's article along with a page reference in parentheses. Explanatory information from Swadesh's article which has direct bearing on the reconstruction is also included. The phonemicized English form follows, with the gloss which might appear if the English form had been elicited in the field. Where Swadesh gives alternative reconstructions, the starred form which is most likely to have produced the English form is also indicated. The etymologies have been listed and numbered in order of their occurrence in Swadesh's article to facilitate cross reference.⁷

1. *naka/laka/raka "hear, ear, leaf"; "ear of grain" in Mixtec; also compounded with *ši/si/ši/ "projection" (p. 95). English *nék* "neck" < *naka.
2. *ni-pela-ni "person (human being)" (p. 95). English *pə'r-sən* "person" < *pela-. English -sən is an archaic animate suffix, preserved primarily in names, e.g. *ján-sən*, *wíl-sən*, *tám-sən*.
3. *cipa/cpa "fire, hot"; also "flame" and "burn" in some languages (p. 95). English *spárk* "small flame, spark" < *cpa.
4. *qeni/qhel/keni "cold" (p. 96). English *kówd* "cold"; *čil-iy* (diminutive) "a little cold" < *qeni/keni. The occurrence of *i* in the diminutive and *o* in the augmentative of English forms in this and succeeding items (7, 10, 14, 26, 34, and 41) is similar to the interchange of *e* and *o* in diminutive and augmentative forms

6 Georg Morgenstierne has used an approach similar to ours in criticizing an attempt to link Burushaski to the Caucasian languages. He showed that the Burushaski pronominal system resembled that of Ewe, an African language, as closely as it resembled the Caucasian pronominal systems (Lorimer, 1935).

7 We are indebted to Harvey Pitkin, Sydney Lamb, William Shipley, and William Jacobsen for their suggestions and comments. The authors, however, must assume full responsibility for any errors or omissions.

of adjectives in Modern Huave, a member language of the Macro Mixtecan family (Swadesh, p. 105).

5. *qe/qe/ke "breathe, groan, growl" (p. 96). English *háwl* "to make a loud, continued noise" (said of the wind or an animal) < *qe/ke. For semantic relation note Mazatec *hta*, *nta* "voice," *nthau*, *thu*, *tho* "wind," both of which are cognate to this set.

6. *khe/ke/qe/qhe "blood, saliva, pus" (p. 96-97). English *tí-r-z* "tears" < *khe/qhe.

7. *qani/koni "bone, stone, egg, fruit"; also "horn, hand, thing" and "round" in some of the languages (p. 97). English *hæ'nd* "hand"; and perhaps *hórñ* "horn," an augmentative form < *koni.

8. *qe/qhe/ke-yi "walk, go" (p. 97). English *tréy-l* "path, place where one walks" < *khe. English *gów* "go" is probably from an earlier *ŋ-gow < *na-qe (see Swadesh, p. 89 for a discussion of *n-, *na- prefixes), since *g-* does not fit the regular sound correspondences. An example of a similar etymological assumption to account for the data in Swadesh's article is to be found under the set "hear, ear, leaf" (p. 95), where Trique *rak'ih* "ear" is thought to have come from an earlier *n-rak'ih, since simple *r would give *d*.

9. *qhani/qhari/qhahni "big," sometimes "long"; *qhali/ká'li "long," sometimes "big"; *qani "all, many"; *qhín "far, late"; diminutive *kini "small"; "afternoon" in some of the languages (p. 97). English *hówl* "all, complete" < *qani; *tárdiy* "late" < *qhari or *qhani.

10. *(ni) ta-qhe/qo-te perhaps originally something like "water-flowing" and "flowing-water," later simply "water"; with diminutive *k* in Otopamian, "rain" (p. 97). English *dréy-n* "water to flow out"; *tri-kəl* (diminutive) "a little water to flow out" < *-qhe-. It is interesting to note that the English reflex preserves the original meaning of this set.

11. *maqha "big, long"; maqhini/maquni "many"; also "old" and "mountain" in other Amerindian languages presumably related to Macro Mixtecan at a deeper level (p. 97). English *mə'č* "much" < *maqha. Probably also *máwntən* "big hill, mountain."

12. *šoqha/soka/šoqa "claw, nail," secondarily "foot." In other Amerindian languages also "finger, leg, scratch, dig" and "perforate" (p. 97). English *skræ'č* "to tear or mark repeatedly with the nails" < *šoqha. The English form shows reduplication of the velar *qh with an expected double development: *qh > *k* after *š- and *qh > *č* medially. Compare the reduplication of velars postulated by Swadesh in item 23.

13. **(n)*t'uqhe/tuqe "top, horn, head, mountain" (other perhaps related forms include **toni*/*totoni* "ear, horn" and **tumi* "feather," suggesting this may be a compound of elements meaning "point" and "large"; p. 97-98). English *táp* "top" < **tumi*; *s-tík* "long piece of wood," probably originally "(long) object sticking up" < **tuqe* with **si-* "protrusion," as in the Cuicatec form; English *tə'ŋ* "tongue" < **toni*, probably from an earlier form **tə'n* (i) -*k* (u) with a suffixed classifier, such as Popolocan **ku* (discussed by Swadesh, p. 90), with subsequent assimilation and loss of *k* in the English form. Consider similar assumptions of earlier forms by Swadesh under "water-flowing" (p. 97).

14. **qe/qhe/ke* "pronominal root and interrogative" (p. 98). English *húw/hw-* (probably an agumentative with *u*). as in *húw* "who" and *hw-át, hw-ə't* "what" < **qe*; also English *šiy* (diminutive) "third person singular feminine pronoun."

15. **qhamu* "earth" (p. 98). English *en-túwm* "to put into the earth, bury."

16. **qheku* "thou" (p. 98). English *điy* "you" (ceremonial form).

17. **qh^weri/qh^weni* "turn, go, run"; **qh^we* "rabbit" ("the runner"); *q^we²wi* "chase, give"; **k^weci* "round, turn" (p. 98). English *tə'rn* "turn"; *rə'n* "run" < **qh^weri/qh^weni*. The English forms point to an earlier **tə'rən/tə'rə'n*. The unaccented vowel was lost, and the **tr-* cluster was simplified in *rə'n*. This analysis helps clarify what appears to be an **r/n* alternation in the Macro Mixtecan reconstruction. We note also that the development we have postulated for English fits in with the assumption of loss of unaccented root vowels and subsequent simplification of certain consonant clusters in Macro Mixtecan (p. 93).

Another English reflex is *twist* "to turn repeatedly" < **k^weci*, with *tw-* instead of *hw-* by analogy with *tə'rn*.

18. **q^wa* (ne) "interrogative" (p. 98-99). English *hwát, hwə't* "what"; probably also *k^wés-čən* "to interrogate." We observe that English *hwát hwə't* "what" has been posited as a reflex of both this item and item 14. Mazahua *kho* "who" is likewise assumed by Swadesh to be a reflex of these two Macro Mixtecan forms (p. 98-99).

We also note that **q^wa* (ne) apparently has two reflexes in English: "what" and "to interrogate." Consider item 14 again, where Swadesh gives *ikax^w* "I," *ixek^w* "thou," and *ka²ano²* "who" as the Jonaz reflexes containing **qe/qhe/ke* "pronominal root and interrogative" (p. 98). Consider also the different Mazatec reflexes for "breathe, groan, growl" cited under item 5.⁸

8 There are well attested instances in which a single form has two reflexes in a daughter language, e.g., Anglo-Saxon *ān* "one" becomes Modern English *an* and *one*. This phenomenon appears to be very common in Macro Mixtecan; with the possible exception of Proto Amerindian, it is not very common in other language families of the world.

19. *peni/peli "leaf, bark, skin, lip"; also "tongue, hair, feather" in other Amerindian languages (p. 99). English *píyl-iŋ* "thin piece of bark, skin, etc."

20. *(ni-)pawa "black, night" (p. 99). English *pəʔf* "small cloud of smoke." For the semantic connection, see item 25.

21. *toʔmi, ši-tom (first element "protrusion") "feather, hair"; also "fur, grass, beard" in other Amerindian languages (p. 99). English *təʔft* "small bunch of hair, grass, etc." < *-tom.

22. *šuhmana "tail"; also in compounds meaning "scorpion" (p. 99). English *stəʔmp* "shortened tail."

23. *qomi/qhomi "four," also reduplicated *qoqhomi with the last syllable sometimes lost or replaced; in Zapotec and Mazahua augmentatives have the meaning of "nine"; *ye-qho "two" (p. 99-100). English *hæʔf* "one of two parts" < *qho or perhaps < *qhomi.

24. *saʔma/šahma "cloth"; "paper" in some of the languages (p. 100). English *síym* "the joint of cloth."

25. *mewo/wemo "cloud, smoke, black"; "night" in some Amerindian languages (p. 100). English *s-mów-k* "smoke" < *mewo (*si- "protrusion").

26. *numa "root" (p. 100). English *lówm* "upper layer of dirt" (earlier meaning "root-place"). Compare item 17, where it is implied that words for "rabbit" are connected with words for "run." Compare also item 19, where the Lenca word for "tongue" is assumed to have originally meant "mouth-leaf" (p. 99; Lenca is not a Macro Mixtecan language, but it is presumably related at a deeper time level).

English also has the reflex *lim* "branch," which shows diminutive vocalic symbolism. In this case, the diminutive form has an opposite meaning from the normal form, as in item 39, where "cold" is the diminutive of "hot, sun" (Swadesh, p. 103).

27. *(yi-)še/se/še "hair, feather"; also "fuzz, cord, vein, fur, skin" in some of the languages (p. 100-101). English *šéy-v* "to remove hair" < *še.

28. *šini/šini/sini "nose, projection, long thing"; also "bone, teat, knee, head" in some of the languages (p. 101). English *šin* "lower leg" ("the long bone") < *šini.

29. *ša/se/ši "animal, bird, deer, etc."; also "dog, bee, horse" in some of the languages (p. 101). English *síyl* "a type of water animal" < *se. Probably also English *šíyp* "sheep" < *ši.

30. *šawi/saʔwi/šahwi "rain, cloud, night" (p. 101). English *šáwəɾ* "a light rain" < *šawi.

31. *šopni/sopni/soponi/šophoni "six," diminutive "three" or "five," augmentative "eight" (p. 101). English *sévən* "seven" ("one more than six"); bound form *sept-* as in *sept-émbər*, the name of a month, probably originally "seventh month" (*-émbər* can be isolated as a suffix meaning "month" from certain of the other month names, e.g. *nowv-émbər* and *diys-émbər*).

32. *(n-)rewa/re^əwa/newa "mouth, tongue, say, eat, stomach" (p. 102). English *néyv-əl* "belly button" ("mouth of the stomach") < *newa.

33. *(š-)rowa/ro^əwa "skin," with the first element perhaps connected with "projection" or "hair"; also "outside, bark, go out" in some Amerindian languages related to Macro Mixtecan at a deeper time level (p. 102). English *rówv* "to go outside and wander."

34. *(ni-)rani/ruwa-ni "white" with the second form perhaps a reshaping to resemble an adjectival derivative of "skin," that is "skin-like"; perhaps "green" and "yellow" in other Amerindian languages (p. 102). English *b-ráwn* "brown"; *równ* (augmentative) "brown" (said of a horse) < *rani with the influence of *ruwa. A semantic connection is apparent from the fact that many people's skin is brown.

35. *ruq^əwa "furrow" (p. 102). English *díc* "ditch."

36. *rani/rino "brother" (p. 102). English *réł-ətív* "relative." For a similar divergence of meaning, consider the set that includes "sibling, older sibling, uncle, aunt" (Swadesh, p. 98).

37. *yowi(-qhow) "two"; in other Amerindian languages "together, with, join fibers, weave a net, assemble, another" (p. 103). English *yów-k* "instrument for joining two animals."

38. *ye^əna/yehna/yonah "chili," secondarily "red" (p. 103). English *čil-iy* "chili"; *yélow*, *γə'low* "yellow" < *yehna. We note that English shows two reflexes of a single form in the proto-language, as in item 18. The meaning "yellow" for the second reflex is probably also a secondary development, since some chili peppers are yellow.

39. *ye^ə (wo-m) /ya^ə (wo-m) /yola/yalo^ə "fire, burn, sun," secondarily "moon, night" (p. 103). English *hát* "hot" < *ya^ə-.

40. *yeti-ni/yeyet-ni "skin" (p. 103). English *háyd* "hide, skin" < *yeti-.

41. *wuhşşuh "smoke" (perhaps a compound); *winqo "cloud" (p. 104). English *wisp* (diminutive) "small amount of cloud or smoke," probably < *wuhşşuh with some influence from *winqo.

42. *(ku-)yuti/k-yuti "tomato"; *-nruwa "husk tomato" ("tomato with skin") (p. 104). English *hə's-k* "husk." The *ku- ~ k- of the prefix in the recon-

structed form appears in English as a suffix, probably the same suffix as that found in items 25 ("smoke") and 37 ("yoke"), with the possible meaning "that which envelops." This situation would lead us to postulate an alternate Macro Mixtecan reconstruction *yuti-k.

43. *yute "comb" (p. 104). English *héd* "head"; perhaps also *hér* "hair."

44. *ya-qan "forty," secondarily "twenty" (from "two-twenty") (p. 104). English (*s-*) *kór* "twenty."

45. *yaku-n "eye, face" (p. 104). English *číyk* "side of the face."

46. *yaka "foliage, leaf, tree" (p. 104). English *héj* "hedge" (probably from earlier *héč).

47. *yeqhe² "sin" (p. 104). English *héyt* "hate" (sin being hateful).

48. *yeqhe "big" (p. 104). English *hyúnj* "big" (earlier *hyúwč).

The phonological development from Proto Macro Mixtecan to English of certain sounds can be postulated on the basis of the sets in the preceding section. The sets are indicated by number with starred letters referring to Proto Macro Mixtecan phonemes.

The distinction between front and back velars in Proto Macro Mixtecan is lost in English. The distinction between aspirated and unaspirated velars is reflected in English, and there is a split in both cases, depending upon the position of the velar in the word: initial aspirated velars become *t*, sometimes *d* or *ð* (6, 8, 9, 10, 15, 16, 17); in medial position they become *č*, sometimes secondarily voiced to *ǰ* (11, 12, 48), with subsequent loss of the following syllable. Medial unaspirated velars also become *č/ǰ* in 35 and 46; quite likely alternate reconstructions with aspirated velars should be posited on the basis of the English evidence.

Unaspirated velars normally become *h* in initial position (5, 7, 9, 14, 23) and *k* in medial position (1, 13, 44, 45). There are some exceptions (4, and perhaps 8 "go"), but most of these will probably be clarified when the phonology and morphology are better understood. Thus the two forms that have initial *č* or *ǰ* where *h* is expected (4, 14) are probably examples of diminutive consonantal symbolism similar to that proposed by Swadesh for an old stage of Amerindian (p. 92).

**t* > *t* or *d* (13, 21, 40, 43).

**y* normally becomes pre-English **hy*. The cluster is then simplified, sometimes to *h* (39, 40, 42, 43, 46, 47), sometimes to *y* (37, 38). The cluster remains in item 48. The phoneme **y* becomes *č* in two items (38, 45).

Initial **m* remains (11, 25). In noninitial position it sometimes remains (15,

24, 26), and sometimes becomes *p* or *f* (13, 21, 23). It becomes an *mp* cluster in 22.

Other labials tend to remain unchanged. **p* > *p* (2, 3, 19, 20, 31). **w* > *w* (25, 30, 33, 34, 37, 41) except in 20 and 32, where the reflex is *f* and *v* respectively.

**n* becomes English *n* (1, 7, 28, 31, 32, 34), *l* (4, 9, 19, 26, 36, 38), and *r* (7, 17, 44, and possibly 9). The interchanges between *n*, *l*, and *r* from Proto Macro Mixtecan to English are interesting in view of the fact that Swadesh considers *l* to be the diminutive and *r* the augmentative of normal *n* in an old stage of Amerindian (p. 92). The fact that the items no longer reflect the diminutive and augmentative distinctions semantically is not disturbing, because the process is no longer active in English.

**c*, **s*, and **š* > *s* (3, 12, 17, 22, 24, 29, 31, 41), and **š* > *š* (27, 28, 29, 30). Post-vocalic **h* is lost (22, 24, 38, 41).

The fact that American English forms fit Swadesh's Macro Mixtecan reconstructions at least as well as many forms cited for member languages casts considerable doubt on the validity of Swadesh's method, and in turn on the reliability of the evidence used by Swadesh to demonstrate the existence of the Macro Mixtecan family. Indeed, it should serve as a warning to all of us who do historical linguistics that we must adhere to valid techniques if we wish our results to have meaning. Otherwise we can "prove" that any language is related to any other language, at almost any desired time depth.

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