Trends in Linguistics
Studies and Monographs 45

Editor
Werner Winter

Mouton de Gruyter
Berlin · New York

Linguistic Change and Reconstruction Methodology

edited by
Philip Baldi

Mouton de Gruyter
Berlin · New York · 1990

Mouton de Gruyter (formerly Mouton, The Hague)
is a Division of Walter de Gruyter & Co., Berlin.

Library of Congress Cataloging in Publication Data

Linguistic change and reconstruction methodology / edited by Philip Baldi.
p. cm. — (Trends in linguistics. Studies and monographs : 45)
"Contains the revised versions of twenty-nine of the thirty-eight papers presented at the Workshop on Linguistic Change and Reconstruction Methodology held at Stanford University, July 30-August 1, 1987" — Pref.
ISBN 0-89925-546-9 (alk. paper)
1. Historical linguistics—Congresses. 2. Linguistic change-Congresses. 3. Reconstruction (Linguistics)—Congresses. I. Baldi, Philip. II. Workshop on Linguistic Change and Reconstruction Methodology (1987 : Stanford University) III. Series.
P140.L54 1990 89-13755
417'.7—dc20 CIP

Deutsche Bibliothek Cataloging in Publication Data

Linguistic change and reconstruction methodology / ed. by Philip Baldi. — Berlin ; New York : Mouton de Gruyter, 1990
(Trends in linguistics : Studies and monographs ; 45)
ISBN 3-11-011908-0
NE: Baldi, Philip [Hrsg.]; Trends in linguistics / Studies and monographs

♾ Printed on acid free paper.

Printed in Germany
Typesetting: Arthur Collignon GmbH, Berlin
Printing: Gerike GmbH, Berlin
Binding: Lüderitz & Bauer GmbH

Preface

This volume contains the revised versions of twenty-nine of the thirty-eight papers presented at the Workshop on Linguistic Change and Reconstruction Methodology held at Stanford University, July 28—August 1 1987. This five-day long workshop, which was sponsored entirely by the U.S. National Science Foundation (Grant #86-17435), was scheduled during the now biennial Summer Institute of the Linguistic Society of America (LSA). The pleasant setting and intellectually rich atmosphere of the Stanford LSA Institute provided a special attraction to the scholars who participated in this workshop; during the Institute more than four hundred linguists and students of linguistics were in residence at Stanford, providing a stimulating concordance of language study, theory, and description that is unavailable in any other setting.

Bringing together thirty-eight scholars from around the world for a successful conference and a follow-up publication requires a blend of good organization, good planning, and good luck. From the beginning, this project has been blessed with all three. The good organization owes much to the staff of the Summer LSA Institute, who were as cooperative and helpful a group of individuals as I have ever worked with. Overall thanks are due to Ivan Sag, the Institute Director, who ran what is in retrospect one of the most successful LSA Institutes ever. More specific acknowledgement is due to Kathryn Henniss, Sag's tireless and eternally cheery assistant; Gina Wein, the administrative aide of the Department of Linguistics, and Michelle Collette and Sonya Oliva, the marvelously cooperative and efficient pillars of the Department. The fine facilities and stimulating atmosphere of the Stanford LSA provided a guarantee that the details of housing, space, food, entertainment and a rich intellectual spirit would be satisfactorily met. And they were.

The good planning which made the Workshop such a success, and has helped to bring this rather complicated volume to life, is due directly to the efforts of my secretary, Mrs. Connie Moore. She handled the complexities of travel, scheduling, and advance planning with professionalism and good cheer. It is no exaggeration to say that without her efforts, this undertaking could never have gone so smoothly, if at all.

The good luck is a bit harder to pin down, but it does have a general outline. There was the good luck to have had such a helpful

1983 *Dictionary of contemporary Arapaho usage* (Arapaho language and culture instructional materials series 4) (Wind River Reservation: Arapaho Language and Culture Commission).

Sherwood, David
1981 *An outline of Maliseet historical phonology,* [Manuscript].
1986 *Maliseet-Passamaquoddy verb morphology* (Canadian Ethnology Service Paper No. 105) (Ottawa: National Museums of Canada).

Sherzer, Joel
1972 "Vowel nasalization in Eastern Algonquian: An areal-typological perspective on linguistics [!] universals", *IJAL* 38: 267–268.

Siebert, Frank T., Jr.
1941 "Certain Proto-Algonquian consonant clusters, *Lg.* 17: 298–303.
1975 "Resurrecting Virginia Algonquian from the dead: The reconstituted and historical phonology of Powhatan", in: James M. Crawford (ed.), *Studies in southeastern Indian languages* (Athens: University of Georgia Press), 285–453.
1980 "The Penobscot Dictionary Project: Preferences and problems of format, presentation, and entry", in: William Cowan (ed.), *Papers of the Eleventh Algonquian Conference,* 113–127.

Silver, Shirley
1960 "Natick consonants in reference to Proto-Central Algonquian", *IJAL* 26: 112–119, 234–241.

Taylor, Allan
1960 *Blackfoot historical phonology: A preliminary survey* (With one-page addendum dated 1978). Manuscript on deposit in the Survey of California and Other Indian Languages, University of California at Berkeley.

Thomson, Gregory
1978 "The origin of Blackfoot geminate stops and nasals", in: Eung-Do Cook–Jonathan D. Kaye (eds.), *Linguistic studies of Native Canada* (Vancouver: University of British Columbia Press) 249–254.

Voegelin, C. F.
1941 "Proto-Algonquian consonant clusters in Delaware", *Lg.* 17: 143–147.

Voorhis, Paul
1971 "Notes on Kickapoo whistle speech", *IJAL* 37: 238–243.

Mayan languages and linguistic change

Lyle Campbell

I. Introduction

The linguistic history of Mayan languages is very well known. Since there are a number of recent overviews (cf. Campbell–Kaufman 1985; Campbell 1979, in press a; Justeson–Norman–Campbell–Kaufman 1985; Kaufman 1976, etc.), I will present in this paper only a very brief summary of Mayan historical linguistics, concentrating on the family's potential contribution to the concerns of historical linguistics in general.

2. Summary of Mayan historical linguistics

The Mayan family consists of 31 languages spoken in Guatemala, southern Mexico, and Belize. Mayan subgrouping is quite advanced; the most widely accepted classification is

Huastecan: Huastec, Chicomuceltec [extinct]
Yucatecan: Yucatec, Lacandon; Mopan, Itzá
Cholan-Tzeltalan (or Greater Tzeltalan):
  Cholan: Chol, Chontal; Chortí, Choltí [extinct]
  Tzeltalan: Tzeltal, Tzotzil
Kanjobalan-Chujean (or Greater Kanjobalan):
  Kanjobalan: Kanjobal, Acatec, Jacaltec; Motocintlec (and Tuzantec)
  Chujean: Chuj, Tojolabal
Quichean-Mamean (or Eastern Mayan):
  Quichean: Kekchí; Uspantec; Pokomchí, Pokomam; Quiché, Cakchiquel, Tzutujil, Sacapultec, Sipacapeño
  Mamean: Teco, Mam; Aguacatec, Ixil (cf. Campbell–Kaufman 1985)

There is general agreement on these five major branches, but there is less consensus concerning more inclusive groupings. Most

Mayanists believe that Huastecan was the first to split off, followed later by the Yucatecan branch, and then finally the remaining groups diversified. Refinements in the subgroup classification may be expected only when grammatical innovations come to be better understood.

Reasonably extensive descriptive materials (grammars and dictionaries) exist for most Mayan languages; the most underrepresented are Chontal, Motozintlec, Acatec, Kanjobal, Uspantec, Sipacapeño, Aguacatec, and Teco.

The most widely accepted proposed phonemic inventory of Proto-Mayan is

p	*t*	*t^{y}*	*ȼ*	*č*	*k*	*q*	*ʔ*	*i*	*u*	*V:*
b'	*t'*	*t^{y}'*	*ȼ'*	*č'*	*k'*	*q'*		*e*	*o*	
m	*n*				*ŋ*			*a*		
	s			*š*	*x*					
	l									
	r									
w				*y*			*h*			

Some important differences from earlier proposed reconstructions include the absence of retroflexed consonants, tones, schwa, *p'*, and *k^{y}*, with **r* added (cf. McQuown 1955, 1956 a; Kaufman 1964 a; Campbell 1977).

Reconstruction of portions of Proto-Mayan syntax have been made (Norman – Campbell 1978; Kaufman 1986). Proto-Mayan was ergative with the usual ergative typological traits, including the antipassive. Ergative alignment was signaled by cross-referencing pronominal clitics or affixes on the verb. There were three morphologically distinct verb classes, transitives, intransitives, and positionals (e. g., 'sit, squat, lie, stand', etc.). Proto-Mayan seems to have had VOS basic word order when S was higher than O in "animacy", but VSO order when both S and O were equal in animacy. Proto-Mayan nominal possession was of the form, "his-dog the man" for "the man's dog"; prefixes (equivalent to the ergative markers) signaled pronominal possession. Proto-Mayan had relational nouns in locative functions (i. e., in construction a possessed noun root, e. g., the equivalent of "my-head" for "on me", "his-stomach" for "in him").

Distant genetic relationships have been proposed between Mayan and Araucanian, Yunga, Chipaya-Uru, Penutian, Hokan, Lenca, Tarascan, Huave, Mixe-Zoquean, and Totonacan, among others (Brown – Witkowski 1979; Hamp 1967, 1970, 1971; Kaufman 1964 b; McQuown 1942, 1956 b; Olson 1964, 1965; Stark 1970, 1972; Swadesh 1966; Witkowski – Brown 1978, 1981; etc.). None, however, has been demonstrated, while most have been seriously discredited. The initially promising Chipaya-Uru (Olson 1964, 1965) proposal has not held up under closer scrutiny (Campbell 1973 a). The Macro-Mayan hypothesis, in which Mayan, Mixe-Zoquean, and Totonacan are grouped together, has received much attention (Brown – Witkowski 1979; Kaufman 1964 b; McQuown 1942, 1956 b; Witkowski – Brown 1978, 1981; etc.), but much of the evidence presented proves to involve diffusion and other explanations; still, this hypothesis bears more investigation (Campbell – Kaufman 1976, 1980, 1983). None of the other proposals is convincing. Thus, the Mayan family has no known relatives beyond the 31 languages named in the classification above.

Mayan languages also reflect membership in the Mesoamerican linguistic area, sharing with the other languages of Mesoamerica these traits: a vigesimal numeral system; nominal possession of the form, e. g. 'his-dog the man'; relational nouns; non-verb-final basic word order; and several semantic calques (loan-translated compounds), among others (Campbell – Kaufman – Smith-Stark 1986).

Linguistic prehistory links the findings of historical linguistics with archaeology, ethnohistory, ethnographic analogy, and other sources of historical information for a fuller picture of prehistory. It is hypothesized that Proto-Mayan was spoken in the Cuchumatanes Mountains of Guatemala, around Soloma, Huehuetenango, at ca. 2200 B. C., where its speakers exploited both highland and lowland ecological zones. Reconstructed vocabulary shows Proto-Mayan speakers to have been highly successful agriculturalists, having a full range of Mesoamerican cultigens, with the maize complex at its core. Proto-Mayan diversified and groups ultimately migrated to the areas of the present-day languages (Kaufman 1976, Campbell 1978 a). The principal bearers of Classic Lowland Maya culture (300 – 900 A. D.) were first Cholan speakers, later joined by Yucatecans (Kaufman 1976, Campbell 1984 a). The Lowland Maya linguistic area was formed during this period, contributing many loan words both internally among these Mayan languages and to neighboring non-Mayan languages (Justeson – Norman – Campbell – Kaufman 1985; Campbell 1978 a).

Recently great progress has been made toward full decipherment of Mayan hieroglyphic writing and towards adequate reading of the texts. The hypotheses of historicism and phoneticism are oft-cited breakthroughs. Historicism refers to the historical content of the texts, many of which contain dynastic histories of the births, kinship, offices, marriages, and deaths of rulers. Mayan writing is a mixed script. It began with logographic signs, which have the value of whole morphemes. The use of rebuses made it more phonological, where something easier to depict could be employed for similar-sounding morphemes more difficult to represent graphically, e. g., a picture of an "eye" to represent English "I". Phonetic complements (or determiners) arose from logograms for morphemes of the form CVC, where the final C was "weak" (i. e., *h, ?*, rarely also *y* or *w*) and ignored in reading. Such phonemic determiners could be used to distinguish different semantic values of logograms. For example, most Mayan languages have two words for 'house' (e. g., *nah* and *-otot*). The HOUSE logogram (T 614) sometimes bears as a phonetic complement T 59, in origin a representation of a "torch", cf. Chol *tah*, with weak final C (T numbers from Thompson's 1962 catalogue of Mayan hieroglyphs.) The HOUSE sign plus the phonetic determiner *ta* specified that the value ending in final *t*, i. e., *-otot*, was intended, rather than *nah*. Later, the use of phonetic complements was expanded to contexts independent of the semantic value of logograms, employed in combinations solely for their phonetic value to spell words syllabically. Mayan words could be written either partly or totally with signs whose value is CV. Since Mayan roots are typically monosyllabic of the form CVC, they could be spelled with two CV signs, where the vowel of the second is silent, but chosen to match the vowel of the root, e. g. Yucatecan /ku:ȼ/ 'turkey' was spelled *ku-ȼu* in the codices. The Cholan hypothesis is also a breakthrough. The script originated with speakers of Cholan (or Cholan-Tzeltalan) and was later passed on to Yucatecan speakers. Many of the monuments are demonstrably Cholan; the codices are in Yucatec. The development of phonetic values can be understood only through Cholan. Many aspects of glyph grammar are also clear now, corresponding to Cholan grammar. Glyphic word order is Verb-Object-Subject, often preceded by a date. It reflects split ergativity, gapping, and conjunction reduction, Mayan verb classes, and the paired couplets so typical of Mayan ritual discourse. These "breakthroughs" converge to facilitate decipherment. For example, T 644, the 'seating' verb, refers to the historical event of rulers being "seated" in office. It frequently bears the suffixes T 130.116, read phonetically as *wa* + *ni*. The Mayan positional verbs (of which 'seating' is a prime example) take special morphology, and only in Cholan do we find *-wan* 'completive aspect' of positional verbs plus *-i* 'intransitive', exactly matching the glyphic spelling of these Cholan suffixes (Campbell 1984 a, 1984 b; Justeson – Norman – Campbell – Kaufman 1985; Fox – Justeson 1984; Kelley 1976, Thompson 1962, etc.)

3. Mayan contributions to historical linguistics in general

With this brief general overview of the historical linguistics of the Mayan family in mind, we can now turn to the questions of what it may contribute to the practice of historical linguistics generally. I will address the questions which the American Indianists considered at the conference from which this volume is derived.

1) What are the patterns of linguistic change in the various language families or groups? Work in Mayan linguistics has emphasized phonological change; it is seen to be regular, though occasionally subsidiary principles come into play, e. g., analogy, onomatopoeia, etc. A few morphologically conditioned sound changes have been identified, and there are some diffused sound changes (Campbell 1971, 1977, 1978 a; Kaufman 1964 a; Kaufman – Norman 1984). However, there is nothing unusual or bizarre in Mayan historical phonology. Given the number of languages, their rich phonological inventories, and the rather large quantity of well-understood sound changes, Mayan provides considerable ammunition for studies of universal and typological properties of sound changes in general. Reconstruction of morphology and syntax is well underway (Norman – Campbell 1978; Kaufman 1986).

2) What factors affect linguistic change: tabu, geography, size, social patterns, typology, etc.? The answer is: none in particular. Mayan sound changes illustrate neogrammarian regularity for the most part. Known morphological and syntactic changes generally are typolog-

ically obedient, following the prescribed patterns of word-order universals, the animacy hierarchy, ergative typology, etc.

3) What techniques of reconstruction are most useful? The answer is: the standard techniques of historical linguistic handbooks; there are no surprises or mysteries here. While totally normal, reconstruction in the family has some special characteristics. In Mayan linguistics, as is the case with many other language families, particularly those of the New World, a family-framework, i. e., a "Mayan" typology, has helped guide both historical and descriptive work. This family framework (family typology) constrains work on grammar, phonological reconstruction, and interpretation of change. Among Mayan changes, perhaps intrafamilial diffusion is a bit tricky, but no more so than borrowing in other known families (Kaufman 1964 a, 1980; Justeson – Norman – Campbell – Kaufman 1985).

4) How does historical linguistic practice vary among different American Indian families or regions, and to what extent is this conditioned by the structure of the languages in question? Mayan practice is much like that in other areas; I am aware of no unique features. There are occasional disputes over the value or role of glottochronology among Mayanists, but there is general agreement otherwise on historical linguistic methods, evidence, and standards of reconstruction.

Mayan does have some special features. Mayanists are in the privileged position of having a wealth of written documentation, extensive texts for over 450 years in Spanish-inspired orthographies, and hieroglyphic texts from ca. 300 A. D. until after the Spanish Conquest. The philological investigation of these has paid off, helping to resolve issues concerning past contrasts now merged, subgrouping, diffused sound changes, and even the linguistic identity of now lost languages (see Campbell 1973 b, 1974, 1977, 1978 b, in press b; Kaufman 1980, see below).

5) What is the role of typological considerations? In essence, typology plays the same role in work on Mayan as it has played elsewhere. Mayan has ergative typology, which helps guide historical work on Mayan morphosyntax, but the study of ergativity in Mayan languages has also contributed to the understanding of ergativity in general (cf. Larsen – Norman 1979). Changes in case marking among the various Mayan languages provide a rich laboratory for the study of change in ergative languages. However, Mayan, with

a variety of passive constructions, provides no passive-to-ergative changes. In phonology, typology has had a similar role. For example, the series of glottalic consonants in most Mayan languages has imploded *b'*, but others in the series are mostly ejectives (*t'*, *ȼ'*, *č'*, *k'*, *q'*). While formerly this was thought somehow to be aberrant – some even insisted on reconstructing Proto-Mayan with **p'* instead of **b'* –, typological studies have shown this to be an expected pattern, labials favoring implosion (Greenberg 1970), and at the same time the Mayan examples have served to refine this typology (Campbell 1973 d). Thus Mayan historical work has both benefitted from, and contributed to, linguistic typology.

6) What can Mayan contribute to historical linguistics generally? Mayan historical linguistics offers strong examples confirming the general principles of historical linguistics. While Mayan holds no special problems for traditional and standard methods of historical linguistics, some aspects give it a special character.

First, the philological study of Mayan languages, documented for more than 450 years, has much to contribute, in spite of the stereotype that in American Indian languages there is little written documentation, with shallow time depths. For example, documented changes in Huastec have been useful in resolving issues in the reconstruction of Proto-Mayan phonology. McQuown (1955, 1956 a) had proposed that Proto-Mayan had contrastive labiovelars, **k*^{w} and **k'*^{w}, based on correspondences involving Huastec *k*^{w} and *k'*^{w}. However, forms preserved in Tapia Zenteno (1767 [written 1727]) show that the Huastec sounds are the result of a more recent change:

$$k(') \begin{Bmatrix} o \\ u \end{Bmatrix} \begin{Bmatrix} w \\ y \\ h \\ ? \end{Bmatrix} \quad V > k(')^{w}V$$

(Kaufman 1980: 106).

Some examples of uncontracted forms attested in Tapia Zenteno are:

1) ⟨*tzanaco*⟩ 'bean'; cf. *ȼanak'*^{w} (Potosí dialect), *čanak'*^{w} (Veracruz dialect) [PM **kenaq'*].

2) ⟨*cuyx*⟩ 'vulture'; cf. *k*^{w}*i:š.*

3) ⟨*coyen*⟩ 'masa' [mass]; cf. *k*^{w}*en* 'grouped, piled together' (both Potosí and Veracruz).

4) ⟨*cohuych*⟩ 'fresh corn tamale'; cf. *k*^{w}*i:č* (Potosí), *k*^{w}*i:ȼ* (Veracruz).

This philological information shows Huastec *k(')*^{w} to be secondary and helps to refine the reconstruction of Proto-Mayan.

Modern Cakchiquel has verb tenses, although its Quichean close relatives and other Mayan languages lack tense, having only aspectual systems. Old Cakchiquel also had only aspect markers, and the change to tenses is attested philologically. Colonial grammars (and other materials) unanimously present Cakchiquel with the aspect system:

x- (/š-/) 'completive aspect (perfect)'
t- 'transitive incompletive aspect'
c-/qu- (/k-/) 'intransitive incompletive aspect'

A "present" sense could be indicated in the incompletive aspects by the particle *tan* 'now', e. g. ⟨*tan t-in-ban*⟩ [now Asp-1Erg-do] 'now I am doing it', ⟨*tan ti-v-oqueçeh*⟩ [now Asp-1Erg-believe] 'I presently believe it'. This combination of particle and incompletive aspect marker underwent changes which resulted in the modern tense system:

tan + *t*-Verb > *tan* + *d*-Verb > *nd*-Verb > (*n*-Verb in some dialects)
tan + *k*-Verb > *tan* + *g*-Verb > *ng*-Verb > (*(n)y*-Verb in some dialects)

That is, the *t-* and *k-* aspect markers were voiced after the final *-n* of the *tan* particle, which itself was cliticized to the verb, abbreviated, and the result ultimately was grammaticalized as present-tense markers, *nd-* or *n-* and *ng-*, *ny-*, or *y*. The old completive aspect marker, *š-*, was left with the meaning 'past', since actions that are completed typically occur in the past. The former incompletive *k-* with no particle came to be reinterpreted as 'remote past'. Without the philological information, one could not completely recover this sequence of changes or understand how the aspect system came to be transformed into tense. (See Campbell 1974, 1977, 1978 b.)

Colonial sources of Pokomam and Pokomchí, closely related Quichean languages, and of Kekchi, show that they had not yet changed **ȼ* ([ts]) fully to *s*. For example, Zúñiga's (c.1608) Pokomchí dictionary presents entries such as:

azbez, atzbez; vatz, vaz 'older brother' (modern *(w-)as* '(my-)older brother') (PM **aȼ* 'elder brother')
azeh, azih, atzih, atzeh 'hermanear, tomar un hermano mayor' [to treat as a brother, to take an older brother]

Of these, Zúñiga said: "some say it with *tz* [i. e. [ȼ]] *atzeh*, and others with only *z, azeh, azih*, or *atzih*; say it as you please. Most say *azeh*, with *z* [i. e. [s]], and some, with *tz*".

litzlotic, lizlotic ('better with *tz*') 'sparkle'
tzab, or more common *zab* 'addition, balancing weight'
tzinuh, 'more common than' *zinuh* 'oak'
tzototzic, zotozic, ('better the latter') 'round, circular, like a rainbow'
tzub; *zub* ('*zub* is better') 'the profit from what is sold'

Similar data are found in Pokomam and Kekchi sources (cf. Campbell 1974). The philological evidence that the **ȼ* > *s* change in these three languages was completed after the writing of these early documents has consequences for Mayan subgrouping. Scholars had previously grouped Pokomam-Pokomchí and Kekchi together as members of a single subgroup, based on the assumption of a shared **ȼ* > *s* innovation. However, the documentation shows that the change diffused after the three had split up into separate languages; this change is not evidence for a closer classification (Campbell 1973 b, 1974, 1977).

The contribution of Mayan philology is seen in a) documentation of former contrasts now lost, b) evidence for resolving Proto-Mayan phonological reconstruction, c) evidence that sound changes can and have diffused across language boundaries, d) correction of subgrouping, etc. The rewards to historical linguists who exploit the philological resources in Mayan languages are great.

A second particularly valuable feature of Mayan historical linguistics is that it is extremely fertile ground for the investigation of linguistic prehistory and has made many contributions to the understanding of Mesoamerican prehistory and to the Mayan past (see above; Campbell 1978 a; Campbell–Kaufman 1976; Kaufman 1976).

A third feature is the loan words. Mayan languages have both donated and received many loans; the investigation of these has contributed much to an understanding of prehistory, chronology of changes, reconstructions, Mesoamerican areal linguistics, and proposals of distant linguistic kinship (Campbell 1973 a, 1977, 1978 a, 1978 c; Campbell – Kaufman 1976, 1983; Campbell – Kaufman – Smith-Stark 1986; Justeson – Norman – Campbell – Kaufman 1985; Kaufman 1964 a, 1980).

A fourth significant feature of Mayan historical linguistics is its own little-known but impressive history. The study of Mayan languages has been up-to-date and in tune with major developments in linguistics almost from the beginning. Grammars of several Mayan languages were written before those of a number of European languages; for example, we can contrast the early Mayan grammars of Cakchiquel 1550, Quiché 1550, Kekchi 1554, Huastec 1560, Tzeltal 1560, 1571, Mam 1644, Pokomchí 1648, Yucatec Maya 1684, Cholti 1685, and Tzotzil 1688 (cf. Campbell, Ventur et al. 1978) with the earliest of European languages, i. e., German 1573, Dutch 1584, English 1586, Danish 1688, Russian 1696, and Swedish 1696 (Rowe 1974). Relationships among the languages were recognized already in the sixteenth century (cf. for example Diego de Landa 1560 [Tozzer 1941: 30]; see also Fox 1978). Ximénez's (1952 [ca. 1792]: 1) vision of the family relationship, though lacking modern terminology, was particularly clear:

> ... all the languages of this Kingdom of Guatemala, from the languages *tzotzil, zendal* [Tzeltal], *chañabal* [Tojolabal], *coxoh* [Southeastern Tzeltal?], *mame* [Mam], *lacandon, peten* [Itzá], *ixil, q'aq'chiquel* [Cakchiquel], *q'aq'chi* [Kekchí], *poq'omchi* [Pokomchí], to many other languages ... were all a single one, ... it is no miracle, since we see it in our own Castilian language – the languages of Europe being daughters of Latin, which the Italians have corrupted in one way, the French in another, and the Spanish in another ... (Fox 1978: 4).

Johann Severin Vater (1810) recognized the relationship between Huastec and Yucatec, and later other Mayan languages, publishing correct cognates (Adelung 1970 [1816]; Vater 1810).

Otto Stoll was a contemporary of the Neogrammarians and in tune with their movement; he published a number of Mayan "sound laws", saying:

> ... it is to be hoped ... that we shall be able not only to define the difference between the Quiché languages and the classic Maya, but even to trace out the laws, according to which these differences have realized themselves. (Stoll 1885: 256)

> These changes follow regular phonetic laws and bear a strong affinity to the principle of "Lautverschiebung" (Grimm's law), long ago known as an agent of most extensive application in the morphology of the Indo-European languages. (Stoll 1885: 257)

Mayan studies were also inspired by, and contributed to, early work in comparative syntax. Edward Seler, the most celebrated Mesoamericanist of all time, wrote his dissertation in linguistics on Mayan historical grammar (Seler 1887); it was squarely in the tradition of Indo-Europeanists of the time, under their direction, actually predating Delbrück's (1888, 1893) extremely famous studies of Indo-European historical syntax in some of its ideas. Seler is still read with profit to this day. It may be worth reemphasizing that Mayan studies in the last century were both up-to-date with comparative linguistic developments in Europe and contributed to them. They are not the Johnny-come-lately stepchild of modern American anthropology that some may be prone to believe.

Finally, as mentioned above, Mayan contributes much to the stock of natural changes, valuable for testing proposed universals and refining typological considerations.

7) How are remote genetic proposals to be treated? Answer: with distrust and with emphasis on assessment of proposed evidence. No language or group beyond the Mayan family proper has been shown to be related to Mayan; some hypotheses should definitely be discarded; a few others are still worthy of attention. (Campbell 1978 c, 1979; Campbell – Kaufman 1980, 1983; see above.)

8) What is the (proper) role of language contact and areal linguistics? An important lesson from the study of Mayan contacts and the Mesoamerican linguistic area is that much evidence offered in support of several proposed distant genetic relationships is actually the result of borrowing. Thus, attention to borrowing and areal linguistics is important for maintaining a balanced perspective on proposals of distant kinship. Also, as seen above in the case of Pokomam-Pokomchí and Kekchi, an understanding of diffused sound changes is important for checks on the interpretations of shared innovations as evidence for subgroupings.

9) In general, what do Mayanists have to say to other historical linguists? The main message of Mayan historical linguistics is that Mayanists do real historical linguistics successfully with standard methods in a business-as-usual manner and without the need of any special or unique concepts. Mayan studies offer an excellent model from which others can learn; they provide abundant, clear examples of changes, which should not be ignored in any attempts at broader theoretical or methodological claims about language change in general.

References

Adelung, Johann C.
1970 [1816] *Mithridates, oder allgemeine Sprachenkunde* 3. (Hildesheim: Georg Olms).

Brown, Cecil H. – Stanley R. Witkowski
1979 "Aspects of the phonological history of Mayan-Zoquean", *IJAL* 45: 34–47.

Campbell, Lyle
1971 *Historical linguistics and Quichean linguistic prehistory* (Ph. D. dissertation, UCLA).
1973 a "Distant genetic relationships and the Maya-Chipaya hypothesis", *Anthropological Linguistics* 15: 3: 113–135.
1973 b "The philological documentation of a variable rule in the history of Pokom and Kekchi", *IJAL* 39: 44–46.
1973 c "On glottalic consonants", *IJAL* 39: 44–46.
1974 "Quichean palatalized velars", *IJAL* 40: 132–134.
1977 *Quichean linguistic prehistory* (University of California Publications in Linguistics 81) (Los Angeles: University of California Press).
1978 a "Quichean prehistory: Linguistic contributions", in: Nora C. England (ed.), *Papers in Mayan linguistics* (Columbia: Department of Anthropology, University of Missouri), 25–54.
1978 b "Quichean linguistics and philology", in: William C. McCormack – Stephen A. Wurm (eds.), *World anthropology: Approaches to language, anthropological issues* (The Hague: Mouton), 223–233.
1978 c "Distant genetic relationship and diffusion: A Mesoamerican perspective", *Proceedings of the International Congress of Americanists* (Paris: Presses Universitaires de Paris), 52: 595–605.
1979 "Middle American languages", in: Lyle Campbell – Marianne Mithun (eds.), *The languages of Native America: Historical and comparative assessment* (Austin: University of Texas Press), 902–1000.
1984 a "The implications of Mayan historical linguistics for glyphic research", in: John S. Justeson – Lyle Campbell (eds.), *Phoneticism in Mayan hieroglyphic writing* (Institute for Mesoamerican Studies, Publication 9) (Albany: SUNY), 1–16.

1984 b Review of "Mayan glyphs: The verb", by Linda Schele. *Language* 60: 621–624.
In press a "Mayan languages", *Oxford International encyclopedia of linguistics* (Oxford: Oxford University Press).
In press b "The philological documentation of changes in Mayan languages", in: Jacek Fisiak (ed.), *Historical linguistics and philology* (Berlin: Mouton de Gruyter).

Campbell, Lyle – Terrence Kaufman
1976 "A linguistic look at the Olmecs", *American Antiquity* 41: 80–89.
1980 "On Mesoamerican linguistics", *American Anthropologist* 82: 850–857.
1983 "Mesoamerican historical linguistics and distant genetic relationship: Getting it straight", *American Anthropologist* 85: 362–372.
1985 "Mayan linguistics: Where are we now?", *Annual Review of Anthropology* 14: 187–198.

Campbell, Lyle – Terrence Kaufman – Thomas Smith-Stark
1986 "Meso-America as a linguistic area", *Language* 62: 530–570.

Campbell, Lyle – Pierre Ventur – Russell Stewart – Brant Gardner
1978 *Bibliography of Mayan Languages and Linguistics* (Institute for Mesoamerican Studies, Publication 3) (Albany: SUNY).

Delbrück, Berthold
1888 *Altindische Syntax* (Syntaktische Forschungen, 5) (Halle an der Saale) [Reprint 1968, Darmstadt: Wissenschaftliche Buchgesellschaft.]
1893 *Vergleichende Syntax der indogermanischen Sprachen* 1 [Part III of Brugmann and Delbrück's Grundriss der vergleichenden Grammatik der indogermanischen Sprachen.] (Strassburg: Karl J. Trübner).

Fox, James Allan
1978 *Proto-Mayan accent, morpheme structure conditions, and velar innovations* [Ph. D. dissertation, University of Chicago].

Fox, James A. – John S. Justeson
1984 "Polyvalence in Mayan hieroglyphic writing", in: Justeson – Campbell (eds.), 17–76.

Greenberg, Joseph H.
1970 "Some generalizations concerning glottalic consonants, especially implosives", *IJAL* 36: 123–145.

Hamp, Eric P.
1967 "On Maya-Chipayan", *IJAL* 33: 74–76.
1970 "Maya-Chipaya and the typology of labials", *Chicago Linguistic Society* 6: 20–22.
1971 "On Mayan-Araucanian comparative phonology", *IJAL* 37: 156–159.

Justeson, John S. – Lyle Campbell (eds.)
1984 *Phoneticism in Mayan hieroglyphic writing* (Institute for Mesoamerican Studies, Publication 9) (Albany: SUNY).

Justeson, John – William Norman – Lyle Campbell – Terrence Kaufman
1985 "The foreign impact on lowland Mayan language and script", (Middle American Research Institute, Publication 53) (New Orleans: Tulane University).

Kaufman, Terrence S.
1964 a "Materiales lingüísticos para el estudio de las relaciones internas y externas de la familia de idiomas mayanos", in: Evon Vogt (ed.), *Desarrollo cultural de los mayas* (Special publication of the Seminario de Cultura Maya.) (Mexico: Universidad Nacional Autónoma de México), 81–136.
1964 b *Evidence for the Macro-Mayan hypothesis* (Microfilm collection of manuscripts on Middle American cultural anthropology, 55) (University of Chicago Library).
1976 "Archaeological and linguistic correlations in Mayaland and associated areas of Meso-America", *World Archaeology* 8: 101–118.
1980 "Pre-Columbian borrowing involving Huastec", in: K. Klar–M. Langdon–S. Silver (eds.), *American Indian and Indo-European studies: Papers in honor of Madison S. Beeler* (The Hague: Mouton), 101–112.
1986 "Outline of comparative Mayan grammar 1: Morphology and particles", [Paper presented at the First Spring Workshop on Theory and Method in Linguistic Reconstruction, University of Pittsburgh].
Kaufman, Terrence–William Norman
1984 "An outline of Proto-Cholan phonology, morphology, and vocabulary", in: Justeson–Campbell (eds.), 77–166.
Kelley, David
1976 *Deciphering the Maya script* (Austin: University of Texas Press).
Larsen, Thomas W.–William M. Norman
1979 "Correlates of ergativity in Mayan grammar", in: Frans Plank (ed.), *Ergativity: Towards a theory of grammatical relations* (London: Academic Press), 347–370.
McQuown, Norman A.
1942 "Una posible síntesis lingüística macro-mayence", *Mayas y olmecas* (Segunda Mesa Redonda) (México: Sociedad Mexicana de Antropología), 37–38.
1955 "The indigenous languages of Latin America", *American Anthropologist* 57: 501–569.
1956 a "The classification of the Mayan languages", *IJAL* 22: 191–195.
1956 b "Evidence for a synthetic trend in Totonacan", *Language* 32: 78–80.
Norman, William–Lyle Campbell
1978 "Toward a Proto-Mayan syntax: a comparative perspective on grammar", in: Nora C. England (ed.), *Papers in Mayan linguistics* (Columbia: Department of Anthropology, University of Missouri), 25–54.
Olson, Ronald D.
1964 "Mayan affinities with Chipaya of Bolivia, I: Correspondences", *IJAL* 30: 313–324.
1965 "Mayan affinities with Chipaya of Bolivia, II: Cognates" *IJAL* 31: 29–38.

Rowe, John Howland
1974 "Sixteenth and seventeenth century grammars", in: Dell Hymes (ed.), *Studies in the history of linguistics: Traditions and paradigms* (Bloomington: Indiana University Press), 361–379.
Seler, Eduard
1887 *Das Konjugationssystem der Mayasprachen* (Berlin: Unger [Th. Grimm]). (Also in Seler's *Gesammelte Abhandlungen zur Amerikanischen Sprach- und Altertumskunde* 1.65–126 [Berlin: A. Ascher].)
Stark, Louisa
1970 "Mayan affinities with Araucanian", *Chicago Linguistic Society* 6: 57–69.
1972 "Maya-Yunga-Chipayan: a new linguistic alignment", *IJAL* 38: 119–135.
Stoll, Otto
1885 "Supplementary remarks on a grammar of the Cakchiquel language of Guatemala", *Proceedings of the American Philosophical Society* 22: 255–268.
Swadesh, Morris
1966 "Porhé y maya", *Anales de Antropología* (México: Universidad Nacional Autónoma de México), 3: 173–204.
Tapia Zenteno, Carlos de
1985 [1767[*Paradigma apologético y noticia de la lengua huasteca: con vocabulario, catecismo y administración de sacramentos,* edited by René Acuña. (Instituto de Investigaciones Filológicas, Gramáticas y diccionarios 3) (México: Universidad Nacional Autónoma de México).
Thompson, J. Eric S.
1962 *A catalogue of Maya hieroglyphics* (Norman, Oklahoma: University of Oklahoma Press).
Tozzer, Alfred M.
1941 "Landa's Relación de las cosas de Yucatán: a translation", *Papers of the Peabody Museum of American Archaeology and Ethnology* 4.3 (Cambridge, Mass.: Peabody Museum, Harvard University).
Vater, Johann Severin
1810 *Untersuchungen über Amerika's Bevölkerung aus dem alten Kontinente* (Leipzig: Friedrich Christian Wilhelm Vogel).
Witkowski, Stanley R.–Cecil H. Brown
1978 "Mesoamerica: A proposed phylum", *American Anthropologist* 80: 942–944.
1981 "Mesoamerica: Historical linguistics and distant genetic relationship", *American Anthropologist* 85: 905–911.
Ximénez, Fr. Francisco
1952 [ca. 1702] *Arte de las tres lenguas Cakchiquel, Quiche y Tzutuhil* (Microfilm collection of manuscripts on Middle American cultural anthropology, 36) (University of Chicago Library).
Zúñiga, Dionysio de
ca. 1608 *Diccionario Pocomchi* (Gates collection) (Provo, Utah: Brigham Young University Library).