



The instability of Eastern Mayan interrogative pronominals

Interrogative pronominals as complex constructions

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Interrogative pronominals (IPs)

- Interrogative pronominals (Idiatov 2007):
 - **non-selective**, such as English *who?* and *what?*
 - **selective**, such as English *which one?*
 - They are often **constructions**, sometimes complex ones (multimorphemic, multiword)
 - English *which one?*
 - San Juan la Laguna Tz'utujil (Eastern Mayan, Quichean; Dayley 1985:151, 239)
naq chi k-e ‘which one?’ (lit.: ‘who/what among them?’)
IPN PREP 3PL.GEN-RN

Instability

- Constructional **complexity** is expected to be favourable to the diachronic **instability** of IPs due to its natural interaction with the **two diachronic tendencies** particularly active with IPs:
 - **substance reducing** frequency effects which are often irregular and rather radical
 - the tendency for **substance accretion**, largely related to their prominent information structural status and to the very strong tendency for continuity in the evolution of interrogative proforms
 - One of the most **extreme cases** of such instability is found among the **Eastern Mayan** languages.
 - Besides the constructional complexity of IPs, a **major factor** that seems to have been pushing the instability to the extreme in the Eastern Mayan case is that the reduction and accretion of substance tend to occur at the opposite sides of IPs.

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Eastern Mayan languages (EM)

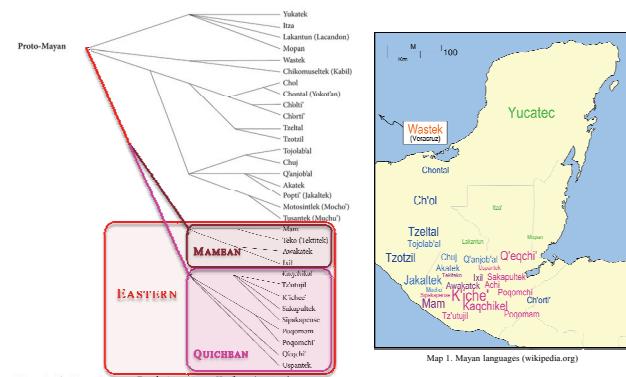


Figure 1. The Mayan Lang
(via Law 2009:19)

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EM IPs: a deviant pattern

- “Mayan languages are **so similar** that the propriety of grouping them as a language family is readily apparent” (Fox 1978:1) and this **relationship** “was also **recognized early**, long before formal linguistic procedures have been formulated” (Campbell & Poser 2008:118).
 - The **extreme diversity** of IPs in EM strongly deviates from this general pattern
 - different **languages** of the same branch, such as ‘who?’ in Mamean (Mayers 1966:275):

Man	<i>'alkyee</i>
Ixil	<i>'ab'il</i>
Awakatek	<i>naʃ</i>
 - different **dialects** of a single language, such as ‘with what?, how?’ in K’iche’ (Par Sapón & Can Pixabaj 2000:94, 206):

Totonicapán	<i>jas</i>
Santa Cruz de El Quiché	<i>su'</i>
Cubulco	<i>wach</i>
 - within **one dialect**, such as ‘who?’ in Cubulco K’iche’ (Par Sapón & Can Pixabaj 2000:95, 203) : *chinoq, china, na* and *pa*

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EM IPs: a deviant pattern

- The extreme diversity of IPs in EM is **not** reducible to **regular sound changes**
 - IPs have **not** been convincingly **reconstructed** for Proto Mayan or the major branches of the family yet (cf. Kaufman 2003:1516-1517)
 - An **additional peculiarity** of EM IPs is an important number of cases of IPs that do not differentiate between the meanings ‘who?’ and ‘what?’ (cf. Idiatov 2007:492-511):
 - Tz’utujil (Quichean)
 - Kaqchikel (Quichean)
 - Uspantek (Quichean)
 - Mam (Mamean)

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Explanation

- In their origin, EM IPs are complex **clause-level** constructions, more specifically main clauses within a cleft construction
- These clausal IPs have underwent **cycles of truncation**, contraction (as typical of frequently used items), and later **accretion** with the material of the new constructions built on their basis
- A major factor that seems to have been pushing the instability to the extreme in the EM case is that the reduction and accretion of substance tend to occur at the **opposite sides** of IPs.

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IPs as clauses

- Mayan languages are generally **predicate-initial** and the IPs are also sentence-initial
- Often, the IPs contain initial elements (*h*)*a*. Markers of the same form are also used to introduce clefts in many languages. The latter are reconstructed for Proto Mayan as the **presentative *ha*** 'here/there/it is' (Kaufman 2003:1534-5)
- In some languages, a special **dependent form of the verb** need to be used after an IP just as after the main clause in a regular cleft construction

Cajolá Mam (Mamean)

- (1) a. *glike g-Ø-ŋj* *chlee-n*
Who RECENT,COMPL-DEP-3SG.OBJ-DIRECTIONAL hug-AFF
t-e qsq'w
3SG.GEN-RN woman
'Who has hugged the woman?' (Pérez *et al.* 2000:254)
- b. *Nikte k-Ø-xt* *i-is* *RECENT,COMPL-DEP-3SG.OBJ-DIRECTIONAL*
saqb'eč *t-e* *Saqb'eč*
help-PROP 3SG.GEN-RN PROP
'It is Nikte' who has helped Saqb'eč' (Pérez *et al.* 2000:168)
- c. *Nikte k-Ø-xt* *i-oani-n* *RECENT,COMPL-INDEP* 3SG.OBJ-DIRECTIONAL 3SG.A-help-AFF
Saqb'eč *PROP* *Saqb'eč*
'Nikte' has helped Saqb'eč' (Pérez *et al.* 2000:167-168)

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IPs as clauses

- Some very **transparent cases** of IPs as clausal origin

- Belejú Poqomchi'
(Quichean; Malchic *et al.* 2000:91-92)
haj haj willik haj wach
it.is it.is RN
'where?' 'which one?' 'who?'
- San Cristóbal Verapaz Poqomchi'
(Quichean; Malchic *et al.* 2000:92-94)
haj haj willik han wach
it.is it.is RN
'where?' 'which one?' 'who?'
- San Marcos la Laguna Kaqchikel
(Quichean; Malchic *et al.* 2000:92-94)
naqwach ~ naxwach naqwach naq (chi)
'what?' 'who?' 'who?, what?'
- San Juan la Laguna Tz'utujil
(Quichean; Dayley 1985:237-239)
naq aa-wach?
IPN 2SG.GEN-RN
'Who are you?' (lit.: 'Who/what is your face/surface/character/appearance/being/type/kind?')
- b. *naq t-wach?*
IPN 3SG.GEN-RN
'Who/what is it?'

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- San Cristóbal Verapaz Poqomchi'
(Quichean; Malchic *et al.* 2000:92-94)
haj haj willik han wach
it.is it.is RN
'where?' 'which one?' 'who?'
- Chinautla Poqomam
(Quichean; Malchic *et al.* 2000:92-94)
an yo' yo'
IPN DEM
'which one?, who? this'
- San Juan la Laguna Tz'utujil
(Quichean; Dayley 1985:237-239)
naq aa-wach?
IPN 2SG.GEN-RN
'Who are you?' (lit.: 'Who/what is your face/surface/character/appearance/being/type/kind?')
- b. *naq r-wach?*
IPN 3SG.GEN-RN
'Who/what is it?'
- c. *naq awa?*
IPN DEM
'What is this?'

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Truncation & Accretion

- Kaqchikel 'what for?, why?': ***achike (r-)juna** [IPN 3SG.GEN-cause_{RN}] ~ **aruma** (García Matzar & Rodríguez Guaján 1997:212)
- K'iche' 'with what?, how?' (Par Sapón & Can Pixabaj 2000:94, 206):

Santa Cruz de El Quiché	<i>su'</i>	Totonicapán	<i>jás</i>
Totonacapán	<i>jas</i>	San Antonio Ilotenango	<i>jas(o)</i>
Cubulco	<i>wach</i>	Rabinal	<i>sa(')</i>
		Santa María Chiquimila	<i>jas, su', sur</i>
		Santa Cruz de El Quiché	<i>su'</i>
Proto K'iche' *ja sa'		Santa Lucía Utatlán	<i>jasu'wach</i>
		Cantel	<i>jasuwuch</i>
		Cubulco	<i>wach</i>

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Truncation & Accretion

- Cubulco K'iche' 'who?' *chinog, china, na, pa* (Par Sapón & Can Pixabaj 2000:95, 203)
 Totonicapán, Santa Clara la Laguna *jachin(aq)*
 San Antonio Ilotenango, ... *jachin*
 Samayac, Joyabaj *(ja)chin*
 Santa María Chiquimila *chin(oq)*
 Cunén *naq*
 Santa Cruz de El Quiché, ... *chin*
 Zunil *qachi(n)*
 Achi' (Mayers 1966:275) *pachinoq*
 Proto K'iche' *ja 'who?, what?'
**ja chi k-naq' 'which one?'*
 IPN PREP 3PL.GEN-RN (person or thing)
 *naq 'belly' (?*nabq' 'grain, pip')
 (cf. Kaufman 2003:308, 1055)
- San Juan la Laguna Tz'utujil (Quichean)
naq chi k-e
 IPN PREP 3PL.GEN-RN
 'which one?' (lit.: 'who/what among them?')

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Truncation & Accretion

- San Juan la Laguna Tz'utujil (Dayley 1985) 'who?, what?': **naq** > **naq choq** > **choq**
 - naq** is "to question direct arguments in a proposition, that is, subjects of intransitive verbs and stative predicates, and agents and patients of transitive verbs" (1985:69), and occasionally, obliques (followed then by a relational noun)
- | | |
|--|---|
| a. <i>naq n-θ-pit</i> <i>chwaaq?</i> | b. <i>naq chee x-θ-b'e?</i> |
| IPW INCOMPL-3SG.S-come | IPW to COMPL-3SG.OBJ-2SG.A-give OBL.FOC |
| 'Who/what is coming tomorrow?' (Dayley 1985:332) | 'Why did she go?' (Dayley 1985:240) |
- (naq) choq** is used "in conjunction with a following relational noun ... to question the following oblique arguments: datives, instrumental, benefactives, comitatives, and possessors" (1985:69)
- | | |
|--|--|
| a. <i>(naq) choq xin awa' sijp ri?</i> | b. <i>choq chee x-θ-aa-ja'</i> <i>wi?</i> |
| IPW IPW off/for DEM present DEM | IPW to COMPL-3SG.OBJ-2SG.A-cut OBL.FOC |
| 'For whom/whose is this present here?' (Dayley 1985:333) | 'To whom did you give it?' (Dayley 1985:240) |
- | |
|---|
| c. <i>choq chee x-θ-aa-choy</i> <i>wi?</i> |
| IPW with COMPL-3SG.OBJ-2SG.A-cut OBL.FOC |
| 'With what did you cut it?' (Dayley 1985:240) |

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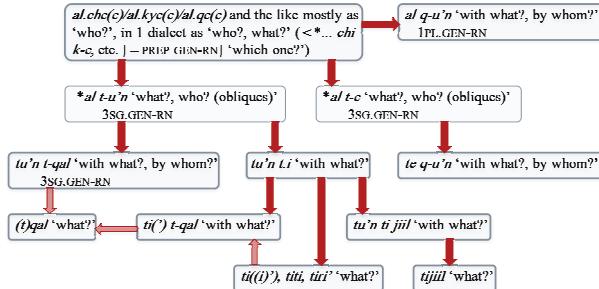
Truncation & Accretion

- San Juan la Laguna Tz'utujil (Dayley 1985) 'who?, what?': **naq** > **naq choq** > **choq**
- naq** < *...**chi k-naq*** '... among them' within a selective IP 'which one?'
- Proto K'iche' 'which one (person or thing)?':
**ja chi k-naq'*
IPN PREP 3PL.GEN-RN
- Kaqchikel 'who?, what? (as A, S, O)' (Patal Majzul et al. 2000:73-6, 125-8, 180-9):
most dialects *anchike* and the like
a few dialects *achinaq, naq*
- choq** < *(...)**naq cha q-e*** ... to us (1PL.GEN-RN)*
- The default use of 1PL.GEN-RN within IPs is attested in southern and central varieties of Mam, such as Cajolá: the meaning 'by whom?' (agent) or 'with what?' (instrument) is expressed by the combination [*al* IPN + *q-u'n* 1PL.GEN-RN] (cf. Pérez et al. 2000:108, 263-4)
- In Tz'utujil, *chi* 'at' to sometimes > *cha /_q*, as in *cha-q-e* 'to us' (Dayley 1985:155-6). In Sakapultek, unstressed *i* > (optionally) *e* ~ *a* /_q, *q'* or *q, q'_* (DuBois 1981:182)
- **a* > *o* /_C attested elsewhere in Mayan, e.g. consistently in Tzotzil (Fox 1978:51-56). In Sakapultek, unstressed *V* > (sometimes) *o* /_j or *l* /_ (DuBois 1981:182).
- In Kaqchikel 'who?, what? (obliques)' (Patal Majzul et al. 2000:73-6, 125-8, 180-9)
most dialects *achof*
one dialect *chag*

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Truncation & Accretion

- The evolution of 'with what?, by whom?' and 'what?' IPs in **Mam** dialects (cf. Pérez et al. 2000, Dienhart 1997)



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Truncation & Accretion

- The evolution of the **JAL-like** IPs in **Mamean languages**
- Mam dialects: **al.che(e)** ~ **al.kye(e)** ~ **al.qe(e)** ~ **an.kye** and the like mostly as '**who?**', in 1 dialect as '**who?, what?**' (<*... *chi k-e*, etc. [= PREP GEN-RN] 'which one?')
- Teko (Dienhart 1997)
 - who?: ab'(i)** Ixil dialects (Lengyel 1991; Dienhart 1997)
 - 'who?: ja'l ~ ab'i'l ~ jaal** 'which one? (person or thing)': **ab'i**
 - 'who?: ja'l ~ mb'(i)** 'who?': **mb'(i)**
 - 'what?: ja'l ~ mb'(i)** 'which one? (person or thing)': **mb'(i)**
 - 'where?: na' ... e't** 'where?': **na'** ... **e't**
- Awakatek (Lengyel 1991; Mayers 1966; Dienhart 1997)
 - 'what?: ja'l ~ mb'(i)** 'who?': **mb'(i)**
 - 'which one? (person or thing)': na's.kyeetz**
 - 'where?': na' ... e't**
- Proto Mamean
 - *ja** 'who?, what?'
 - *ha' ja m-θ-b'iθt-I** 'it is what it is called?'
 - it is IPN INCOMPL-3SG.S-name-PASS

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Proto EM IPs

- Proto EM ***ja** 'who?, what?'
- ***ha' ja tyii' ki-naq'** 'which one? (it is who/what among them?)'
it is IPN PREP 3PL.GEN-RN
- ***ha' ja u-naq'** 'where? (it is what in?)'
it is IPN 3SG.GEN-RN

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Truncation & Accretion

- Besides the constructional complexity of IPs, a **major factor** that seems to have been pushing the instability to the extreme in the Eastern Mayan case is that the reduction and accretion of substance tend to occur at the opposite sides of IPs.
- Some major **sources of accretion** of IPs:
 - IPN + [PREP 3PL.GEN-RN] (with certain RNs): '... among them?' → selective 'which one?' → non-selective 'who?', 'who?, what?'
 - IPN + [(PREP) 3SG.GEN-RN] (with certain RNs; sometimes 1PL.GEN): oblique IPs → 'how?', 'where?', 'why?', etc., as well as 'what?'
 - IPN + [3SG.GEN-RN] (a few RNs, such as **Haty* 'face'): no significant semantic change
 - IPN + [demonstratives], [emphasis particles, such as *tzun, k'a, k'ari*]: no significant semantic change
 - a few cases: [emphasis particles, such as *qa(s)*] + IPN: no significant semantic change

substance is mostly built up at the **right** edge of IPs
it is reduced mostly to the **left** of where it is added

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Truncation & Stress

- The stress in EM languages is generally **right-edge bound** (cf. Fox 1978:37-41)
- Sometimes, especially in Mamean, it is also **weight-sensitive** with varying weight hierarchies (cf. Fox 1978:37-41), which may be further complicated by interaction between morphemes that are dominant or recessive with respect to vowel length.
- Since the process of substance reduction primarily affects **unstressed segments**, its outcomes should largely be conditioned by variation in **accentuation patterns**

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- An example of various stress-related phenomena in **Sakapultek** (DuBois 1981:124-6, 141-55):
 - There is a **primary final stress** and “a **secondary stress** often falls on alternating stem syllables counting back from the primary stress, and frequently on the first stem syllable... Note that pre-stem vowels remain unstressed”.
 - “A **stressed short vowel** becomes **long** in non-phrase-final position”.
 - “**Long vowels** are **shortened** in non-phrase-final syllables” (except when $VV < *Vh_C$).
 - “A **noninitial short unstressed vowel** is optionally **deleted**, unless deletion would produce an unacceptable consonant cluster”.
 - “**unstressed words**”: “Some classes of words do not ordinarily receive word stress. These are often monosyllables which do not follow the CVC canon (that is, they are CV or VC), and generally occur in non-final position in a phrase. They include articles, prepositions, and particles”.
 - In some **CVC** function words, the final **C** is **deleted** when they are unstressed.

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Truncation

- The process of substance reduction primarily affects **unstressed segments**, and therefore, it is primarily conditioned by variation in **accentuation patterns**
- Another factor may be the **relevance** of a given segment for the construction as a whole, in terms of its semantics, syntactic function or its distinctiveness from other similar constructions

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ALMG orthography for the phonemes of Mayan languages

Vowels						Consonants											
ALMG	IPA	ALMG	IPA	[A] ALMG	[B] IPA	ALMG	IPA	ALMG	IPA	ALMG	IPA	ALMG	IPA	ALMG	IPA	ALMG	IPA
a	[a]	aa	[a:]	ä	[e]	b'	[ɛ]	b	[b]	ch	[tʃ]	ch'	[tʃ']	h	[h]		
e	[e]	ee	[e:]	ë	[ə]	j	[x]	k	[k]	k'	[k']	l	[l]	m	[m]		
i	[i]	ii	[i:]	ĩ	[i]	n	[n]	nh	[ŋ]	p	[p]	q	[q]	q'	[q']		
o	[o]	oo	[o:]	ö	[ʌ]	r	[r]	s	[s]	t	[t]	t'	[t']	tz	[ts]		
u	[u]	uu	[u:]	ü	[ʊ]	tz'	[ts']	w	[w]	x	[ʃ]	y	[j]	'	[?]		

A B These vowels and signs are only used in Kaqchikel

In tonal languages (primarily Yucatec), a high tone is indicated with an accent, as with "á" or "éé".

For the languages that make a distinction between **palato-alveolar** and **retroflex** affricates and fricatives (Mam, Ixil, Tektitek Awakatek, Q'anjob'al, Popti', and Akatek in Guatemala, and Yucatec in Mexico) the ALMG suggests the following set of conventions.

ALMG convention for palato-alveolar and retroflex consonants

ALMG	IPA	ALMG	IPA
ch	[tʃ]	ch'	[tʃ']
tx	[tʂ]	tx'	[tʂ']
xh	[ʃ]	x	[ʂ]

(source: en.wikipedia.org)

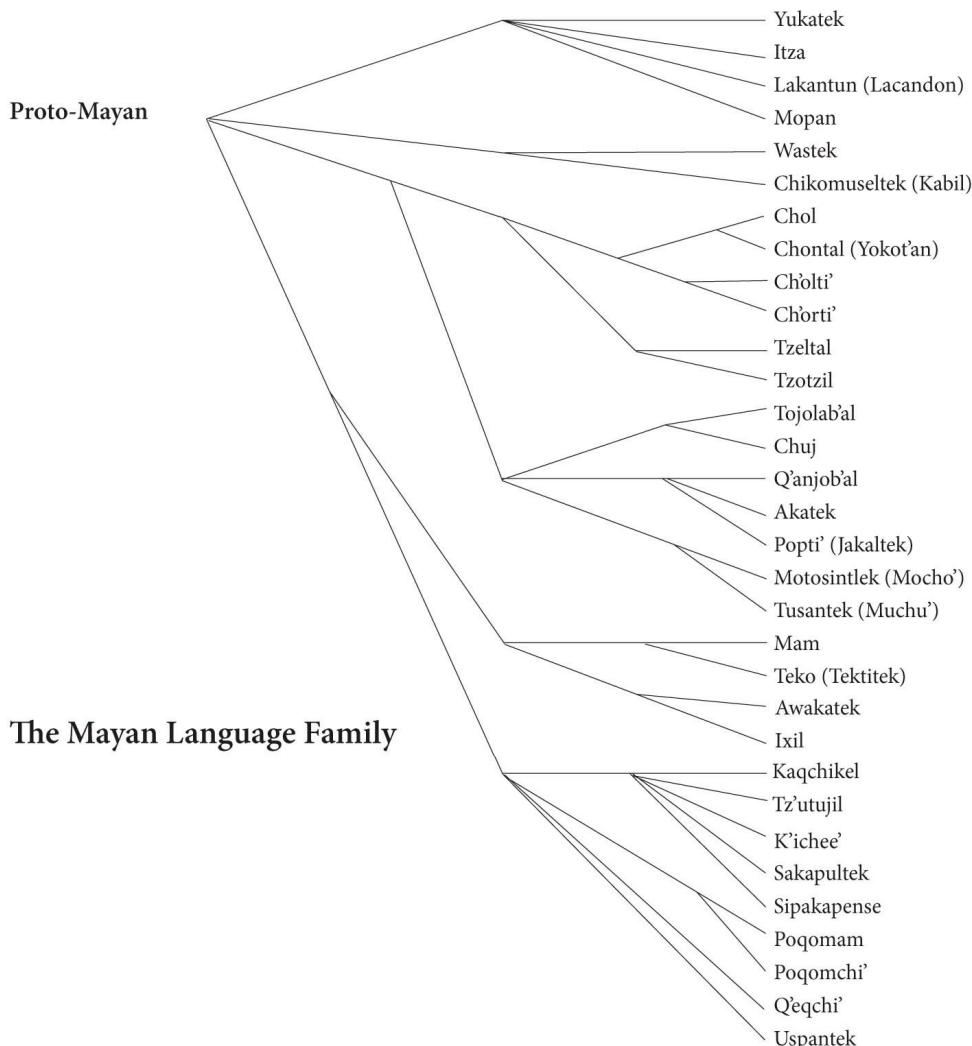


Figure 1. The Mayan Language Family According to Kaufman (1990:62).

(via Law 2009:219)

References:

- Campbell, Lyle & William J. Poser. 2008. *Language classification: history and method*. Cambridge: Cambridge University Press.
- Dayley, Jon P. 1985. *Tzutujil grammar*. Berkeley: University of California Press.
- Dienhart, John M. 1997. *The Mayan languages: a comparative vocabulary (electronic version)*. Odense: Odense University. <http://maya.hum.sdu.dk>.
- DuBois, John William. 1981. *The Sacapultec language*. Berkeley: University of California PhD thesis.
- Fox, James Allan. 1978. *Proto-Mayan accent, morpheme structure conditions, and velar innovations*. University of Chicago PhD.
- García Matzar, Pedro & José Obispo Rodríguez Guaján. 1997. *Rukemik ri Kaqchikel chi'/ Gramática Kaqchikel*. Guatemala: Cholsamaj.
- Idiatov, Dmitry. 2007. *A typology of non-selective interrogative pronominals*. Antwerp: University of Antwerp PhD.
- Kaufman, Terrence. 1990. Algunos rasgos estructurales de los idiomas Mayances con referencia especial al K'iche'. In Nora C. England & Stephen R. Elliott (eds.), *Lecturas sobre la lingüística Maya*, 59-114. La Antigua Guatemala: CIRMA.
- Kaufman, Terrence & (with the assistance of) John Justeson. 2003. *A preliminary Mayan etymological dictionary*. <http://www.famsi.org/reports/01051/pmed.pdf>.
- Law, Danny. 2009. Pronominal borrowing among the Maya. *Diachronica* 26(2). 214-252.
- Lengyel, Thomas E. 1991. Toward a dialectology of Ixil Maya: Variation across communities and individuals. *International Journal of American Linguistics* 57(3). 330-364.
- Malchic Nicolás, Manuel Bernardo, Romelia Mó Isém & Augusto Tul Rax. 2000. *Rub'iral ruk'ibaal wach Poqom q'orb'al/ Variación dialectal en Poqom*. Guatemala: Cholsamaj.
- Mayers, Marvin K. (ed.). 1966. *Languages of Guatemala*. The Hague: Mouton & Co.
- Par Sapón, María Beatriz & Telma Angelina Can Pixabaj. 2000. *Ujunamaxiik ri K'ichee' ch'ab'al/ Variación dialectal en K'ichee'*. Guatemala: Cholsamaj.
- Patal Majzul, Filiberto, Pedro Oscar García Matzar & Carmelina Espantzay Serech. 2000. *Rujunamaxik ri Kaqchikel chi'/ Variación dialectal en Kaqchikel*. Guatemala: Cholsamaj.
- Pérez, Eduardo Gustavo, Zoila Blanca Luz García Jiménez & Odilio Jiménez. 2000. *Tx'ixpub'ente tiib' Qyool/ Variación dialectal en Mam*. Guatemala: Cholsamaj.