

## COMMENTARY

Following is a review by Jonathan D. Amith of the second edition of Frances Karttunen's An Analytical Dictionary of Nahuatl. The review was first published in Spanish and appears here for the first time in its original English version. Following the review is a response from Karttunen and a brief reply to Karttunen's response by Amith.

### **The original review by Jonathan Amith:**

An Analytical Dictionary of Nahuatl. By Frances Karttunen. 2d ed. Norman: University of Oklahoma Press, 1992. Pp. xxxiv + 349. \$21.95 (paper). ISBN 0806124210 (paper).

### **Introduction**

The present edition of An Analytical Dictionary of Nahuatl (hence ADN) is a welcome and much-needed paperback edition of Frances Karttunen's (FK) 1983 work published in cloth by the University of Texas Press. Since then important English-language lexical studies have been produced by John Bierhorst (1985; 1992), R. Joe Campbell (1985), and Lyle Campbell (1985). Yet ADN's scope (multiple dialects covering a wide geographical area and temporal span), accessibility (both in terms of user-friendliness and price), and focused goal (to provide comparative information on vowel length and glottal stops, and to offer English glosses for beginning Nahuatl scholars unfamiliar with Spanish) make it a unique work. For good reason it will continue to provide scholars and fieldworkers with a quick-reference compendium on vowel length and glottal stops. Moreover, given University of Oklahoma Press's inexpensive paperback edition, it is destined to become one of the most popular lexicographic tools for introductory college-level Nahuatl classes in the United States and Europe.

It is precisely the impact that ADN has had and will continue to have that makes a careful review necessary. In many respects, FK's meticulous lexicographic research is beyond reproach. For most entries she provides the reader with a careful listing of sources and a clear exposition of discrepancies in vowel length and glottal stop placement (cf. tlāāxtli tlaneltoquiliztli, xillāntli, and zohzoquihuiā). Her primary historical sources on these phenomena are Horacio Carochi's Arte de la lengua mexicana con la declaración de los adverbios della (originally published in 1645) and a colonial manuscript found in the Bancroft Library. The principal modern sources are Forrest Brewer and Jean G. Brewer's Vocabulario de Tetelcingo, Morelos (1971), and Harold Key and Mary Ritchie de Key Vocabulario de la Sierra de Zacapoaxtla, Puebla (1953). Many of the definitions are taken from Molina (originally published in 1571), even when information on vowel length and glottal stop placement is from another source. FK was obviously very careful in organizing her database, and often points out discrepancies between the Spanish-Nahuatl and Nahuatl-Spanish sides of her sources (cf. tlalcāhuilli). Yet, despite her care with the Nahuatl source material, there are serious problems with ADN. These may be classified under three rubrics: 1) the structure of ADN and, particularly, the concept of canonical form; 2) standardization of vowel length and glottal stop placement; and 3) English glosses.

### **The structure of An Analytical Dictionary of Nahuatl**

FK has selected an orthography that represents a combination of historical and modern styles; it most closely follows the script used by J. Richard Andrews in his Introduction to Classical Nahuatl

(1975). She fully discusses the implications of her choice; though it has certain drawbacks (cf. Canger 1986) FK presents a satisfactory defense of her selection.

A macron, which does not affect alphabetization, is used to represent vowel length, whereas an *h*, which does affect alphabetization, is used to represent a glottal stop. The advantage of using *h*, as opposed to diacritics, is that it is more familiar to potential readers and it unequivocally represents the glottal stop as a consonant segment; the disadvantage is that words students know only from colonial sources, which usually do not represent the glottal stop, can become difficult to locate. In addition, (C)Vh- reduplicated forms become separated from the stem form in ADN, although FK is careful to cross-reference derivative forms. Minor changes from colonial orthography include the use of *z* instead of a cedilla, and the substitution of *cu* for *qu* before *a* and *o*. The sounds [w] and [k<sup>w</sup>] are represented *hu* and *cu* syllable initially, *uh* and *uc* in syllable-final position. It should be noted, however, that a *cu/uc* spelling might not always represent a [k<sup>w</sup>] sound. In the Balsas River basin of Guerrero we find [tekutli], [tekuhtle] and [tékutli] in Ameyaltepec, San Juan Tetelcingo, and San Agustín Oapan, respectively. Although this syllabification may be a recent innovation, it should call our attention to a potential problem in the relationship of orthographic conventions to sound, and offers a caveat to a statement that "In traditional Nahuatl writing the *cu* was not always inverted, and this conveyed the false impression of a syllable [ku] in forms like *tecutli* for *tēuc-tli*" (p. xxiii). Finally, FK chooses to represent the final vowels of what Andrews calls "Class C" verbs as long. FK notes (p. xxiii): "In his glossary they appear with final *ja* and *oa*, but here they appear as *ḡa* and *oḡa*. In actual pronunciation, the long vowels are shortened at the ends of words, but they remain long when followed by a suffix." Actually, vowel-shortening occurs in phrase- or utterance-final position, not simply word-final position. The fact that the final vowel of "Class C" verbs is short except when followed by certain suffixes should warn us of the possibility that the long vowel occurring in forms such as *quipoloḡaya* may be part of the inflectional process and not a reflex of underlying length in the verb. FK's choice of *ḡa* and *oḡa* for these verbs should, therefore, be understood as an implicit decision to position the vowel quantity with the verb and not the suffix.

More problematic is FK's notion of a "canonical form." At one point she notes: "By 'canonical' I mean that which is basic and can be related to other forms by general rules. The canonical form of a word not only regularizes the different spelling conventions of the sources for this dictionary but also predicts, insofar as possible, its inflectional paradigm — that is, what shape the word will take when prefixes and suffixes are added to it" (p. xi).

Later FK notes that the "canonical form of each word is based on comparison of all attestations, taken together with the general rules of Nahuatl word-formation and phonology" (p. xxiii). And, more specifically: "[T]he canonical form of this dictionary is not identical with a phonemic or a historically prior proto-form. It leans to the conservative Nahuatl of the central Mexican highlands and includes some historical innovation of form from that area. Nonetheless, the canonical form can to a high degree be related in a regular fashion to even the most peripheral of the regional dialects of the contributing sources" (pp. xxiii-xxiv).

Clearly, therefore, FK uses a canonical shape to code inflectional information into the main entry. For example, she distinguishes between verbs that end in *-ḡa* vs those that end in *-ḡya*, even though such a distinction is not manifested at a surface level. Such "coding" (essentially morphophonemic representation) allows the reader to deduce inflectional paradigms from the shape of the canonical entry. Moreover, a dictionary that draws from a wide variety of sources also needs

some sort of basic entry in order to avoid endless repetition of forms that can be predicted from the phonological rules of each dialect. Thus Xalitla absolute nouns that end in -hli, derived from {l+(t)li} are entered in canonical form as calli, mīlli, etc. Similarly, a "basic" entry avoids repeating Xalitla's otli for ohtli, or Tetelcingo's mulcaxitl for mōlcaxitl.

If the canonical form of ADN were simply a heuristic device to code certain morphophonemic information, or to provide forms that specific dialects predictably alter according to set phonological rules, then there would be little problem with the dictionary. It would still have been helpful, however, if FK had included a more precise specification of what the oft-referred to "general rules" are.

But, unfortunately, in ADN canonical forms are also called upon to perform the unenviable task of providing a single entry when vowel length and placement of glottal stops apparently vary across dialect. Many incongruities in the data clearly reflect internal inconsistencies and errors in specific lexicons, which FK has done a commendable job in sorting out. But other divergences may reflect real differences between dialects that cannot be accounted for by "general rules." ADN would be greatly enhanced by a short, critical analysis of the very real possibility that vowel length and glottal stop placement in cognate forms may vary across dialects (for example, the Nahuatl of the Balsas River basin has ohtlatl, as opposed to the more common otlatl) in ways that cannot be ascribed to errors, suppletion (e.g., mā- vs. mah-, cf. FK's discussion under tlahtli), or clearly identifiable and dialect-specific phonological rules.

In sum, the problem of canonical forms is both theoretical and methodological. At the theoretical level, it leaves open the quite pertinent question of whether "canonical" Nahuatl represents any real language and whether there are single canonical forms that can be related by "general rules" to specific lexical formations in different dialects. By eschewing historical analysis, and by leaving "general rules" unspecified, FK takes the path of least resistance. To a certain extent, perhaps mostly in the name of expediency, this path is justified. But FK would have done readers a greater service by clearly recognizing and discussing the eclectic nature of her approach and the problems of using material so much separated in time and distance.

The second problem is methodological. Faced with internal inconsistency in a particular source, FK justifiably assumes that one representation is correct. On the basis of comparative evidence and the relative frequency of one or the other form in the problematic dialect, she selects a single form for the canonical entry (cf. her treatment of omitl, tec(i), tehtēmoliā, temōlotl, tepotztoca, and tlachpānhuāztl). In many cases an idiosyncratic form from one dialect is entered under a canonical form that conforms to the pattern found in other dialects (cf. the discussion under tēnquixtiā). Or a particular dialect may include a word that FK "corrects" on the basis of evidence from a related lexeme found in another source (cf. xihxicuinoā). But a focus on canonical forms has the unfortunate result of leading FK to standardize the data. It is often difficult to determine when she is correcting inconsistencies and when she is altering correctly recorded information.

### **The determination of vowel length and placement of glottal stops**

In her effort to specify a single canonical form FK introduces changes based on her own etymological analysis, on "general rules" that she feels should have applied, and on a variety of decisions that reflect her own interpretation of Nahuatl morphology and grammar.

Changing entries on the basis of etymology is dangerous for three reasons: 1) it is hard to be consistent; 2) the etymology proposed may be wrong; and 3) in spite of obvious etymological relations between words, undetermined processes may alter vowel length (examples are ōlīni and tlālolīni, nāhuatīa and nahuatī, and the variation that affects the root chal/chāl). Many corrections in the data that FK proposes are unobjectionable. Thus she changes amiltomatl to āmiltomatl based on what she calls a "transparent" derivation. But it is difficult to determine when FK deems her etymological analysis sufficient to provide grounds for changing data from the sources. Ahpilōlli ("jarro de barro, el cántaro de la mano") is not changed to āpilōlli for the canonical form even though FK expects the ā element ("agua"); āhuēlic ("desabrido, insípido") is not changed to ahhuēlic (with the expected negative particle ah-); ātlapēchtli ("bajada (de la barranca)") is not changed to ātlapechtli (even though FK feels that it incorporates tlapechtli "cama"), nor is iztāltic ("anémico, pálido") corrected to iztaltic even though all other words beginning iztal- have a short a. On the other hand, the second vowel is lengthened in ācāhualli given that "it should be long if the literal sense is 'something dehydrated.'" FK lengthens the second syllable of āyōtōchin and comments that "If this means literally 'turtle-rabbit,' as it seems to, the vowel of the second syllable should be long, but in the attestations it is not so marked." Similar reasoning is applied to āzcacualoā and many other words.

Whether or not FK's reasoning is correct in the above instances, changing entries can lead to serious problems. Thus she enters Tetelcingo's cayasibi under cayahcihu(i) and notes that, "The single attestation in T does not have an internal glottal stop, but in view of the tendency in T to lose such glottal stops, this is a plausible derivation from (DHCIHU(ɬ))." A cognate to cayasibi from San Agustín Oapan, Guerrero, kakaistik, suggests that there is no glottal stop. Moreover, the context in which Tetelcingo loses glottal stops is never precisely specified (it is often retained, cf. ojtli). Elsewhere FK inserts a glottal stop for unclear or erroneous reasons (cf. (i)lpitichah and tlahcuilohhuiliā). In the entry under camachaloā FK notes that "Both Z and X give this with a long vowel in chal, but in the abundant attestations of camachalli elsewhere, the vowel is short." The long vowel should probably have been retained: Ameyaltepec, Guerrero has kamachalko and kamachaleh with a short vowel, but kamachālowa with a long one. The similarity of chal/chāl to ōlīni and tlālolīni, in which vowel length changes for reasons that we have not yet been able to determine, should be apparent. FK also states that Molina's entry for pitzāhua mistakenly combines two words, and that the meaning "hablar alto la muger" is derived from pītza. This does not seem correct and the meaning "hablar alto" is probably a metaphoric extension of pitz- meaning "delgado" (this is supported by ADN's own entry for tlapitzhuīā, "hace ruido el guajolote allá. llora niño con voz delgadita" where the short j is maintained). In various derivations such as cecec, chichic, etic (Tetelcingo, not mentioned under etic, has a long final vowel) and xocoç, FK erroneously shortens the final vowel. A long vowel is undoubtedly correct in many of the reported adjectives. Its absence in the corresponding verb is probably due to neutralization of j before a. The long vowel does appear in cecēya; in Ameyaltepec one finds the series xokotl, xokōya and xokōk where both the verbal and adjectival forms clearly manifest the long final vowel.

The danger of FK's methodology is also well illustrated by the many entries that contain tlahuēlilōk. For example, ōcēlmotlahuēlilitic ("o desventurado de tí. guay de tí (M), desdichadísimo (C)") refers the reader to -tlahuēlilitic; and tlahltlahuēlilōcāt(i) ("hacer ruindades") refers the reader to tlahuēlilōcat(i). But neither -tlahuēlilitic nor tlahuēlilōcat(i) mention any change in vowel length from the data and refer the reader to tlahuēlli and tlahuēlilōc, respectively. It is only under these entries that FK mentions that she has lengthened the vowel in the syllable huēl; the reader must deduce that this has been carried out in all derivations. Under tlahuēlilōc FK notes that the Bancroft dialogues give a

short vowel in its two attestations, and Carochi marks the vowel short in eleven out of twelve occurrences. FK suggests that both sources might "reflect a contextual shortening of this vowel when followed by two subsequent syllables containing long vowels." This ad hoc rule is not justified, and many words in ADN manifest three consecutive syllables with long vowels. FK has lengthened the vowel in tlahuēlīlōc and all related derivations based on her etymology that derives this word from tlahuēlli ("indignación, enojo o furia del que está airado y lleno de saña (M), coraje, enojo, ira (C)"). But under the entry for tlahuēlli we learn that although Tetelcingo and Zacapoaxtla generally have a long vowel, Carochi marks the vowel long in less than a third of the attestations, and that the Bancroft dialogues give the vowel as short in two derivations. Perhaps tlahuēlīlōc is not derived from tlahuēlli, or perhaps derivations from tlahuēlli uniformly have a short vowel. In whatever case the lengthening of the vowel does not seem justified.

The problems of using etymological analysis to alter data are repeated in regard to rule application. Again, it is not clear when FK maintains data in spite of "general rules" that suggest an error, and when she changes data to agree with "general rules." In all the following cases FK has changed (lengthened or shortened as the case may be) a vowel (which I have double underlined) to concord with general rules: cemihcacāyōlīhuayān, (i)cnēlīlmat(i), (i)hxītiā, (i)lhuilō, (i)ttītiā, (i)xhuītiā, mahuiztīlīlani, nepanōhuiliā, tequitīlītiā, tētzacuilīlōni, tlateōmatīliztli, tlateōtoquīliztli, and zōmāliā. In the following cases, however, although by general rule a vowel (double underlined) should be different, FK has not changed the entry: āyīlītiā, (i)cnelīlō, (i)tqūitiā, ixhuīlītiā, machīlītiā, pāhuaxīlītiā, pahīlītiā, and palāctic.

FK cites a general rule that calls for a short vowel before the -lītiā causative ending. In all but one case (tequitīlītiā), however, she leaves the long vowel and simply comments that it should be short. Before the -tiā causative ending, the final stem vowel should be long according to a rule formulated by Carochi (and endorsed by Andrews and Karttunen). FK lengthens the vowel in (i)ttītiā and (i)xhuītiā even though Tetelcingo consistently gives them as short and Carochi does not mark them long. The case of (i)hxītiā is even more problematical given that Carochi specifically states it to be short (as was the case with the passives already described). In Ameyaltepec, Guerrero there is a minimal pair: tlaxītia (derived from asi) "completar una carga, terminar una tarea" and tlaxitia (derived from isa) "pararse a uno el pene."<sup>1</sup> In defending her lengthening of the stem-final vowel in ihxitiā FK (1987:245) mentions that "the other sources have a long vowel, in accordance with the general rule that Carochi himself states." But Tetelcingo (pp. 34, 216) also has a short vowel.

FK generally writes a long vowel (ī) before the passive ending -lō even when a rule formulated by Carochi calls for a short vowel. She has stated (1987:245–46) that this is because these non-active forms are taken from sources other than Carochi. The argument is only valid up to a point. In other situations FK has applied Carochi's rules to modern dialects. It is also unclear why, if Carochi specifically gave icnelilō and ilhuilō as cases in which the stem-final vowel is short, FK has lengthened the vowel for one canonical entry but not the other. Under (i)cnēlīlō FK has also formulated a general rule as follows: "C[arochi] specifically says that the j of the third syllable is short by contrast with the ē of the preceding syllable, but this is probably the result of some secondary shortening. By general rule this should be (i)cnēlīlō." FK does not elaborate upon what "secondary shortening" refers to, nor when it applies. In her comments under (i)lhuilō, which she corrects from Carochi's ilhuilō, FK states that the short vowel is probably due to "some superficial neutralization of length distinctions." Thus (cf. the discussion under tlahuēlli) we are presented with "contextual shortening," "secondary shortening," and "superficial neutralization" to explain variation, without any clear explanation as to

when these processes occur. A similar problem occurs with the "general rules" that FK often cites. Often, they appear to be based on Carochi's grammar. But in the case of passive formations the "general rule" that gives a long vowel is apparently based on modern dialects. The problem of applying "rules" from such diverse sources to create canonical forms is not adequately discussed.

Occasionally FK's etymologies or comments are in error, as might be expected in such an ambitious work. For example, Tetelcingo and Xalitla coyactic is stated to be a variant of coyoctic found in other sources. But the derivation of the two is different: coyōni and coyāwi, respectively. FK inserts a hypothetical j in huēiyac, when the form huēyac is correct. And cequ(i) should be listed as (i)cequ(i), or perhaps (i)hcequ(i).

Finally, based on her understanding of Nahuatl grammar and morphology, FK occasionally inserts entries not found in any sources. She also assigns separate entries for forms that occur only as part of compounds: mēyalli, which occurs only in āmēyalli; nehnecuilli, which is found only in ixtenehnecuilli; pahpalli, found only in compounds with ixtli; pechtli, which appears in tlapechtli, pehpechtli and in compounds; quechtetl, which is the first element in several compounds; comōlli, found in ācomōlli and tlacomōlli; and neltic, found only in pitzoneltic and mātzocuiltlaneltic. FK creates an entry for tēmiā and attaches a translation from Tetelcingo's (tla)yēctēmiā. In this case the reader is not warned that tēmiā occurs only in certain compounds. Given that no source gives tēmiā as an unbound lexeme, it is quite possible that it occurs only in compounds. Moreover, evidence from the Balsas River basin suggests that in composition tēmiā (and tēma) often mean "extender o echar" and not "llenar" (cf. nēchtlāltēmia "me echa tierra (a la cara o el cuerpo)"). FK also creates an entry for qualānqui based on the occurrence of qualāni as the first element in compounds such as qualāncānahuatiā. This methodology may be justified in certain cases as a useful device for cross-referencing, although at times it gives an erroneous impression of the potential for such forms to occur (such as pechtli). Also questionable is the utility of creating entries for words that have never been found, and may not even be possible. In her comments FK occasionally states that certain words imply unattested forms: palaxtli implies \*palay(a) and metzīxco implies metzīxtli. Until we know more about Nahuatl derivational processes it would be better to refrain from such comments. We would probably not want to assume \*poloya from Ameyaltepec popoloxtlācatl, "un hombre que habla sin sentido," or āixtli from āixco, "la superficie del agua."

The problem with ADN goes beyond whether or not FK correctly changes vowel lengths. The more basic question is whether somewhat vague rules, often from different dialects and time periods, should be invoked to change empirical evidence, or whether the evidence should be used to reformulate and re-evaluate the rules. This is a basic methodological question that should be dealt with not only in ADN, but in any dictionary that is based on evidence from disparate sources. ADN works best as a concise presentation of information on vowel length for quick consultation. It is less successful in providing a uniform lexicon and at times becomes problematical when changing data.

### The English translation

In her User's Guide section, FK states (p. xv) that the purpose of ADN is to provide two things not found in either Molina or Siméon: information about long vowels and glottal stops in individual words, and English glosses. It is to this second goal that I now wish to turn.

FK offers two further definitions of her goal in the English glosses. First, they "strive to

balance basic, rather literal meaning with conventional usage" (Introduction, p. xxix). Second, "The English glosses are not simply translations of Molina, as I explain in the introduction; they are mine and strive to express the basic sense and the use of the lexical item. In writing them, I have called on what James Lockhart and I have come across in years of reading notarial texts as well as the sources that contribute directly to ADN" (1987:244). The necessity of English glosses that capture the basic sense of the Nahuatl is a point well taken. Spanish glosses, particularly in Molina and Siméon, are often context particular, and readers of ADN are well-served when FK is able to extract the basic sense of the Nahuatl and present a clear and concise English definition (cf. milīni, mixmolōn(i)). Her translations often accomplish this, and at times add significant information to the Spanish (cf. mixteteica). But they are often frustratingly erroneous and incomplete.

There are a few cases of outright mistranslation. Thus tetēlic is given in the Zacapoaxtla dictionary as "agarroso," which FK mistakenly translates as "someone grabby." Both the Nahuatl and the colloquial Spanish expression refer to a particular sour taste, such as that of green bananas or persimmons. The Tetelcingo verb tlaizhuatēca, "zacatea" is translated as "to make hay." The action referred to is that of stripping corn leaves off the dried maize plant and then, after a bunch of leaves have been gathered in one's hand, to slam them down (hence the -tēca element) between two stripped stalks for later bundling and tying. Note that izhuatl in Tetelcingo (from where the verb comes) refers to "la caña de la milpa." FK translates ihīyōcui as "to have something to eat, take some refreshment" and gives part of Carochi's translation "comer... un bocado." The full text in Carochi (and the word's etymology) makes it clear that the Nahuatl means "to stop for a small bite to eat in order to regain strength." Tlailpiliztli, "acción de amarrar," is erroneously given as "the action of untying something." Cuauhmočitl, Spanish "guamuchil," is mistakenly referred to as a tamarind.

Often the translations are perplexing because they fail to give an obvious and simple English translation. Tlapicīloā, "lloviznar" is given as "to rain" (why not "to drizzle"?), and tlāltotōnqui, "el suelo está caliente," as "warm earth" (why not "hot"?). In a similar vein ecuātlahtlapān, "frijol quebrado," is translated as "mashed beans" when both the Nahuatl and Spanish (tlapāni/quebrado) refer to brittle objects that are broken. "Mashed beans" are cooked; a translation of "broken or split beans" would be more accurate. Poqu(i) "fumar" is glossed as "to give off smoke" instead of the correct "to smoke (a cigarette, pipe, cigar, etc.)." And nehnemi, "andar o caminar," is translated as "to wander about." In composition as -tinemi, the verb nemi does mean "to wander about." But certainly the primary meaning of nehnemi is simply "to walk." Poztequ(i) is glossed as "to split, to break lengthwise; to break something lengthwise." Its actual meaning is "to break crosswise (a branch, bone, etc.)." Apparently FK has interpreted a Spanish gloss "quebra la dirección en que va" for "lengthwise." I believe the reference is a metaphoric extension of poztequi to occasions when persons, animals, or even moving phenomena such as rivers, suddenly change direction. Mānahuatiā, "se despide de él (con la mano)," is translated as "to cast something or someone away."

At times, the English translation captures only a part of the Nahuatl meaning, leaving out what may be the most important part of the Spanish gloss. On the other hand, the English gloss may add a meaning that is not apparent from either the Nahuatl or Spanish. For example, ātōvāt has a Spanish gloss of "corriente de agua, río," but in English has only "river." The primary meaning of ātōvāt is a current, usually flood or rain waters, that rushes down a hill. The key meaning of īxpoloā as "desperdiciar o echar a perder algo" does not appear in the English gloss. Likewise, a primary meaning of moyāhu(a), "enturbiar el agua o otra cosa líquida," is absent from the English gloss. Ehēcāmōtla, "lo embruja," is glossed as "to bewitch someone; to make spirits visible;" the justification

for "to make spirits visible" is not clear.

There are also cases in which the English gloss is based on an erroneous selection of one of several possible Spanish meanings. Thus tecuīnaltiā, "lo prende," is given as "to seize, capture someone." "Prender" can be translated as either "to light (a fire)" or "to seize." The correct gloss for tecuīnaltiā is, however, "to light" (for example, cf. Siméon 1977:453). The same Spanish word "prender" is found also as a definition for celiy(a). Unless FK has found a case of a metaphoric use of celiy(a), the correct translation is "to take root (a plant)" and not, as in ADN, "to catch fire." The translation of malina as "sprain something" is also apparently taken from the Spanish "torcer" although the Nahuatl verb refers to the twisting of fiber (prototypically hemp on one's shin) and not to a sprain or twisted body part. For mahuizōtiā, "lo divierte. lo observa," the English gloss "to divert" in ADN selects the wrong meaning of "divertir." The correct translation is "to amuse or entertain." Similar errors occur with other words. Thus for pēpēhualtiā, "provocar a saña a otro (M), lo ofende (T), lo injuria (T)," FK gives "to offend, injure someone," selecting a secondary meaning of "injuriar" ("to injure") rather than the more common meaning, which is applicable here, of "to insult." With poxāhui, "se cae. se desploma," FK again selects a secondary and non-applicable meaning of "desplomar" ("to get out of plumb") rather than "to crumble down." Momati has a meaning of "se halla," which FK translates as "it appears." In this usage the meaning of momati (and "se halla") is "to feel comfortable or at home in a place or situation." A metaphoric meaning of ātl is "la mollera de la cabeza." Although "mollera" may mean either "crown of the head" or "fontanel," ātl refers only to the soft part of the head that disappears as a child matures. Quixtiā is glossed as "to relieve oneself," apparently based on a colloquial interpretation of "excusarse," rather than the indicated "to take leave."

### Conclusion

At a methodological and theoretical level ADN presents problems of conceptualization and implementation that should have been more clearly formulated and discussed. More serious for its practical use as a teaching and learning tool, the English glosses are often inadequate. Yet in spite of its shortcomings, ADN has also been instrumental in sensitizing students of Nahuatl to the importance of considering vowel length and glottal stops in philological analysis. Most importantly, it is a concise reference work on vowel length and glottal stop placement. ADN provides an invaluable research tool that will free scholars and fieldworkers from the cumbersome task of consulting myriad sources for questions of Nahuatl phonology.

1. In Ameyaltepec, as in Xalitla, underlying {h} is lost in all but word-final positions.

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**The response by Frances Karttunen:**

Note: In-text page numbers refer to the earlier Spanish version of Amith's review, not to the original English version that appears here.

The publishers of the paperback edition of An Analytical Dictionary of Nahuatl (ADN) recently sent me a copy of a review by Jonathan Amith published in June, 1998, in Mesoamérica. According to a footnote, a previous version of Amith's review appeared in Mesoamérica 33 (June 1997) with errors and omissions that the 1998 version corrects.

Since Amith's review appears to call into question the integrity of the dictionary, I feel it requires a reply, and I am posting it to the NN and Nahuatl-L for maximum distribution to Nahuatl scholars. It would be unfortunate if current or potential users of ADN were to lose confidence in the dependability of the dictionary. The review is twelve pages long. On the first page and the last Amith speaks of ADN in positive general terms, and in the intervening ten pages, he takes the position that

it methodologically flawed and contains many serious inaccuracies. On p. 277, Amith states that there are defects in three areas: 1) the concept of the canonical form of the entries; 2) the treatment of contrastive vowel length; and 3) the English glosses of the entries.

Beginning with the canonical form, he is dissatisfied with the orthography used. As he himself acknowledges, the orthography is not an invention for ADN, but is that used by J. Richard Andrews in his Introduction to Classical Nahuatl (University of Texas Press, 1975). Oddly, in his characterization of the orthography, Amith states on p. 277 that in ADN long vowels are marked with colons after the vowels, but this is not the case. Long vowels in ADN are indicated with macrons over the vowels, just as they are in Andrews. When Amith states on p. 278 that minor changes in "colonial orthography" are made in ADN, concerning qu and cu before the vowels a and o, these choices were — once again — already made by Andrews and are not innovations in the dictionary.

I chose to follow Andrews in order not to proliferate orthographies and to make the dictionary maximally compatible with the grammar. Naturally, I would not have adopted this particular orthography if I felt it to be defective or misleading. But on the contrary, I am in agreement with Andrews that his orthography is optimal for representing and teaching a conservative central Mexican variety of Nahuatl to which the greatest number of Nahuatl scholars and students seek access.

For regional dialect studies, a different type of transcription is appropriate. There exists a substantial corpus of Nahuatl dictionaries of particular communities, each with an orthography devised to reflect the phonetic characteristics of Nahuatl speech in that microarea. These dictionaries were designed to be maximally accessible to the members of the communities in question. The more locally useful they are, however, the more opaque they are to the broader pool of potential users. Mental translation among these various orthographies requires training in phonology plus a degree of linguistic agility that shuts out many people who deserve to get in.

I am of the opinion that any alteration Amith would have of the orthography of ADN would reduce its usefulness to a great many users of the dictionary. On p. 278 Amith Remarks that orthographic cu and uc do not always represent phonetic [k<sup>w</sup>] and gives as an example three forms of the word for "lord, ruler" from three communities in the Río Balsas region. However, the trisyllabic forms he cites appear to me to be back-loans of Spanish spelling pronunciation of written Nahuatl. This is the case in the Nahuatl spoken in Milpa, Alta, where teuhtli, the local reflex of /te:k<sup>w</sup>ti/, still means "lord," but the back-loan tecohtli means "boss." There are no Spanish loanwords included in ADN, even ones that originated in Nahuatl, traveled to Spanish, and then returned.

This is the first of a number of instances in which Amith states that ADN is inadequate because it does not represent to his satisfaction the currently spoken Río Balsas dialects. However, it was not intended to do so. I am confident that it can be a useful tool in studying these dialects, but ultimately it is up to Amith to produce the fruit of his own long fieldwork and show to what extent these dialects agree with the sources from which ADN was compiled, to what extent they diverge, and how systematic the divergences are.

When ADN took shape, Amith's Río Balsas material was not available to be incorporated into the comparative data files. However, the dictionary of nearby Xalitla, Guerrero, compiled by Cleofas Celestino Ramírez and Karen Dakin was so incorporated. The Xalitla material does not follow the Carochi and Bancroft patterns of contrastive vowel-length with the consistency of the material from

the modern Tetelcingo dictionary. This has led me to the conclusion that in the last quarter of this century contrastive vowel length in Xalitla has been eroded, retained mainly in shibboleth pairs. Some linguists — including José Antonio Flores Fárfan, who has worked extensively on Nahuatl of the Río Balsas region — agree with my understanding of this while others — notably Karen Dakin — disagree. Amith would do us a favor if he would publish an article setting forth the systematic and the random differences in the corpora he has collected.

Still on p. 278 Amith criticizes my departure from Andrews in marking the final vowels of "Class C" verbs as long. My reason for doing so is that the final vowel of such stems is long when followed by the suffixes *-ni* (customary present) and *-ya* (imperfect) and short when word-final or followed by a glottal stop ("saltillo"). My choice is not ad hoc, since these two shortening contexts are general in Nahuatl (although some uninflected particles and the nouns that drop a stem final /i/ in word-final position retain surface phonetic long final vowels). Amith objects that this general shortening is not just in word-final position but in phrase- or utterance-final position. This strikes me as an odd objection, since on the one hand, phrase-final and utterance-final imply word-final, and on the other hand, word-final shortening occurs within as well as at the end of phrases.

Amith feels that my choice excludes the possibility that the final vowels of "Class C" verbs are lengthened by a morphological process specific to the customary present and imperfect suffixes. It was not my intent to exclude alternative analyses, and Amith is welcome to propose one and argue for it. The canonical forms in ADN are there, however, to be maximally predictive of vowel length in derived forms. They are not intended as statements of phonological theory or of psychological reality.

Amith goes on for another page complaining that the forms of ADN are not the specific forms of particular dialects (Xalitla and Tetelcingo) and that, moreover, general rules of deriving specific local forms that are mentioned in the dictionary are not set forth in the dictionary itself. These complaints strike me as gratuitous. There is no place in the dictionary for a comparative dialect study, nor would one benefit most users of the dictionary. As for the examples Amith cites, it is a general rule in Xalitla Nahuatl that geminate *-ll-* (< *-l-tl*) is aspirated (pronounced as [hl]). Thus canonical CAL-LI predicts cahli in Xalitla. In Tetelcingo vowels have undergone quality changes that enhance the contrast of long and short vowels. Thus, the long O of the canonical form is predictably realized in Tetelcingo as [u] in mulcaxitl. These correspondences are obvious and transparent to any linguist examining the primary data.

On p. 280, Amith asserts that I have smoothed over and corrected inconsistencies in my sources. This is far from the case. The compilation of the dictionary began with an exhaustive comparison of attestations from several early and modern sources. There was no way of knowing in advance whether they would agree or not. It emerged that the modern Tetelcingo material overwhelmingly agreed with the Carochi and Bancroft material. The Zacapoaxtla data was less consistent, but it was not internally consistent either. When confusion between long vowels and stressed short vowels was taken into account, there was a better fit. The apparent problems I found in the Xalitla data seem to have most to do with long vowels no longer being consistently contrasted with short ones. According to Flores Fárfan and Celestino Ramírez, Nahuatl in Xalitla has nearly ceased to be transmitted from parents to their children, and in this situation of imminent language death, it is difficult for anyone to collect new data to resolve these questions.

In any case, I categorically deny that I have "corrected" entries or suppressed data. When there

is agreement in attestations across several sources, the ADN entry is given without attestations. When there is disagreement among sources, the attestations are given, and the nature of the disagreement is plainly stated. The original comparative data files are archived at the Benson Latin American Collection of the University of Texas where Amith is welcome to consult them. Up until December 1998, I had them readily at hand for answering queries, but Amith has never contacted me with any.

From charges of correction, Amith moves on, at the end of p. 280, to claim that I have changed vowel-length values. This is contrary to the purpose of the dictionary, and I deny that I have done so. Where attestations do not agree with what derivational morphology would predict, I have been scrupulous in stating that they do not. Amith's quotations from entries in ADN bear this out.

Once again Amith resorts to examples from the Río Balsas region, but it is difficult to know what to make of them in a context of "sugiere," "probablemente," and "parece." Moreover, it hardly seems appropriate for Amith to complain of ADN not spelling out general rules and then for he himself to cite vowel-length inconsistencies in his data "donde la cantidad vocálica cambia por razones que aún no hemos podido determinar."

At the bottom of p. 282 Amith claims that my methodology is "etymological" and that it is not clear when I have respected the data and when I have changed it for my own purposes. Neither of these assertions is correct. Once again, the very quotations from ADN that Amith presents undercut his criticism. Users of the dictionary may be assured that it is solidly data-based and is not characterized by unheralded changes of any sort. Amith's use of shudder quotes lends no validity to his insinuations.

The charges on the lower half of p. 284 and top of p. 285 are baseless. There are no stealthily created artificial entries in ADN, and Amith's advice that "Sería mejor desister de tales comentarios hasta saber más de los procesos derivacionales de náhuatl" is not calculated to win him a Mr. Congeniality award.

Beginning in the middle of p. 285 and continuing onto p. 288, Amith criticizes the English translations provided in ADN, stating that they are often frustratingly incomplete or erroneous. Specifically, he cites the English glosses of two dozen entries. I think the implication is that these two dozen are but a sampling of a much larger number of errors, which I certainly hope is not the case. But to have even a few poor or misleading glosses in a dictionary is distressing, so I am not going to take the line that two dozen out of more than 6,000 is not so bad.

In the past I have come across some embarrassing mistakes on my own and had the chance to correct them in the paperback edition. Una Canger objected to my characterization of a word for shell meaning "egg" only through metaphorical extension, and further examination of a lot of texts has convinced me that she has a point. In some areas the word I took to mean "mollusk shell" is used as the only or the primary word for "egg." Likewise, Ricardo Salvador has kindly corrected me on my understanding of the parts of the maize flower, and he caught a mistake that passed unnoticed from the original edition into the paperback: describing a tree as one that is planted to provide shade for coffee bushes, when in fact, it is planted to provide shade for cacao. Also, someone pointed out to me that a terse gloss of mine "dove" begs the question of whether I mean the bird or the past tense of the verb "to dive." Fortunately, Molina's Spanish gloss paired with my English one makes the meaning clear.

Since the original publication of ADN, however, no one has sent me a list of more than a very few problematic glosses. I certainly wish that if prior to the paperback edition Amith had already come across some or all of the ones he lists in his review, he had sent them to me. But just as he has never queried me about canonical forms and inconsistencies between ADN forms and Río Balsas area forms, it is also the case that he has never contacted me about English glosses.

Assuming that the glosses he presents as defective are the strongest examples of error, some of them strike me as straw men. He rejects my "to have something to eat, to take some refreshment" for a literal translation from Carochi, "to stop for a small bite to eat in order to gain strength." He rejects "to rain" in favor of "to drizzle" and my "warm" for "hot." He says my gloss of the fruit identified in Spanish as guamúchil as "tamarind" is mistaken, but I have checked my source for the gloss, and it definitely identifies the fruit as tamarind. This is not to say that in various areas of Mexico, the same word must always refer to the same plant, flower, or fruit. On the contrary, botanical terms are rather widely shared around. For this reason, I backed away from precise identifications in ADN.

Amith says that the verb I gloss as "to give off smoke" really means "to smoke (a cigarette, pipe, cigar, etc.)." Since the verb is only attested in my data files for Xalitla, which is in the Río Balsas area, I do not dispute him. It undoubtedly means "to smoke" in the sense he gives. But it is an intransitive verb, so the cigar, cigarette, or pipe is implied: it cannot appear as direct object. And what, after all, in this context is the great difference between smoking, exhaling smoke, and giving off smoke?

I will not continue through the rest of Amith's examples. Some of his objections are surely on the mark. Some of them, I think, are rather strained. I certainly hope there are no more than a couple of dozen. By way of assurance to users of ADN, let me point out that the entries in the dictionary — canonical forms (including long vowels, short vowels, and glottal stops), glosses, and attestations — were not created in a vacuum. James Lockhart and I went over every entry together before publication. We did not always agree; in fact he has never accepted the long final vowels of "Class C" verbs. He brought his immense experience with colonial Nahuatl and Spanish to the checking, however, and in cases where we did not agree, my ultimate choices were not uninformed. Then the University of Texas Press had prepublication readers for the original 1983 edition, and the University of Oklahoma Press had more readers before the 1992 paperback edition. The dictionary has been out for sixteen years, and it has been reviewed in quite a number of both English- and Spanish-language journals.

When I was in the process of assembling the comparative data files from which I compiled ADN, I made a presentation about the dictionary-to-be at an International Congress of Americanists meeting in Manchester, England. I polled the assembled Nahuatl scholars there about what they wanted in the entries and how they would like the information organized. At that time Una Canger gave me an excellent piece of advice that I have done my very best to follow. She said that it was not so important HOW I designed the entries; the important thing was to tell the reader what I was doing every step of the way. I found this both reassuring and inspiring, and it became my standard from the beginning to the end of the dictionary project. I offer these subsequent comments in the same spirit.

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### The response from Jonathan Amith:

If brevity is the soul of wit and discretion is the better part of valor, then perhaps Frances Karttunen and myself do indeed share something in common — a rather dispirited sense of humor and a rather thespian sense of valor. What we certainly don't share, it should now be apparent, is an opinion of the Analytical Dictionary of Nahuatl (ADN). I originally wrote a review of ADN in English for Mesoamerica (where it was translated into Spanish). Alan Sandstrom has kindly allowed the original English version to appear in this issue of the NN. This will allow readers to better understand my original points and compare them with FK's response. Given this, I will try to make my "response to a response" somewhat brief.

To begin, I think that in many cases FK seems to exaggerate our differences or make my objections more categorical than they are. Thus in her response she notes that I am "dissatisfied with the orthography used." Indeed I am (particularly in how /h/, used to represent the glottal stop (saltillo) of Classical Nahuatl, affects alphabetization and makes it difficult for students to locate words, while it separates reduplicated forms such as -tētequi from -tehtequi, when they would much better be kept together to facilitate comparison, particularly given that in most colonial texts both would appear as simply -tetequi; the Jesuit orthography, which uses diacritics, is much more heuristic in this regard). However, I also state that "FK presents a satisfactory defense of her selection." Nevertheless, after using ADN for several years in a classroom environment I can definitely state that it is untrue that "any alternation... [to] the orthography of ADN would reduce its usefulness to a great many users of the dictionary" (FK, response). Beginning students working with colonial texts that do not represent the glottal stop (FK's /h/) find it troublesome to locate words with this phoneme. For example, tepexitl, "precipice," appears in ADN as tepehxitl. The Jesuit orthography tepèxitl, with /è/ alphabetized with /e/, would make locating the word much simpler. Indeed (as Una Canger notes in her review of ADN), FK acknowledges the difficulty in her introduction: "If the user fails to find a word on the first search, that does not necessarily mean that the word is missing from the dictionary. The burden is on the user to search again for the word with an H at the end of the first syllable, then the second, etc., until all possibilities have been exhausted" (ADN, p. xii).

A similar exaggeration of our differences exists in regards to the final long vowel of "Class C" verbs. If the canonical form of these verbs is meant "to be maximally predictive of vowel length in derived forms," as FK states in her response, then this is a valid choice, though perhaps not one that everyone would make. As FK notes, "James Lockhart... has never accepted the long final vowels of 'Class C' verbs." It seems unusual, then, that she would object to a reviewer mentioning what has obviously been a point of discussion between the author and her colleagues.

I do not suggest, as FK intimates, that there are "stealthily created artificial entries" in ADN. Rather, I mention that "for most entries she [FK] provides the reader with a careful listing of sources and a clear exposition of discrepancies in vowel length and glottal stop placement." Nor do I suggest that "ADN is inadequate because it does not represent to [my] satisfaction the currently spoken Río Balsas dialects." What I do contend is that some of my research material supports vowel length as recorded by other scholars, data that FK has occasionally changed according to etymological interpretations and on the basis of "rules" that I believe are not only inadequately formulated and inconsistently applied, but that are not applicable across dialects. "Rules" such as "secondary shortening," "contextual shortening," and "superficial neutralization" are neither described nor documented. FK also seems to misunderstand my objection: the problem is not simply that she fails

to spell out "general rules," but that she repeatedly applies rules that are not or perhaps cannot, given that FK's compilation includes various dialects, be spelled out.

Equally problematic is FK's tendency to change entries or suggest new ones based on her etymological analysis and occasional misunderstanding of Nahuatl derivational morphology. Thus she takes palaxtli, "something festering or rotten," and states that it implies an unattested verb \*palaya. There is no such verb (although in many contexts /x/ does derive from /y/). The derivational process is the same that forms qualaxtli, "ire," from qualāni, "to be angry" (cf. Launey 1992:281). FK creates a hypothetical entry huēiyac 'something long' and states that "the I is only hypothesized from HUĒIY(A)" (p. 86). Huēiyac exists only in FK's hypothetical derivation. Zacapoaxtla and Xalitla (which gives a long final /ā/) both have huēyac (as does Ameyaltepec and Oapan). Molina too only has ueyac and the derived forms ueyaquilā and ueyaquiliztli. Here there seems to be no "disagreement among sources" that needs to be reconciled — no source that I am familiar with gives an /i/.

Finally, I mentioned difficulties with FK's translations. In reference to pōqui the problem is FK's mistranslation of both the Nahuatl and the Spanish (fumar, given by Ramírez and Dakin in their Xalitla dictionary and cited by FK, does not mean "to give off smoke"). And contrary to what FK asserts, there certainly is a difference between "smoking, exhaling smoke, and giving off smoke." (The verb pōqui, in fact, probably represents noun incorporation of "smoke" + ī "imbibe," in a structure analogous to ātli "to drink water," from ātl + ī, and ātōli "to drink atole," from ātōl(li) + ī.) In regard to the English translations it is often difficult to determine FK's source. Thus she gives for chōquiliztli and chōquiztli "tears, weeping, cries..." although the Spanish gloss does not give lágrimas. The nominalization of the verb chōka refers to the action of crying, not tears (which is īxāvōtl). I am unaware of any source that defines chōqui(li)ztli as "tears."

It is unavoidable that in a lexicographic work such as ADN mistakes will be made. And considering the costs involved in retypesetting a dictionary, it is also understandable why certain errors would be left to stand, although certainly a preface to a second edition should point these out. Not only is there no new preface, but nowhere in the paperback edition is there any indication that changes or corrections have been made. In her response, FK gives the erroneous impression that she corrected the paperback edition (1992) where errors were found in the original hardback edition (1983). It seems, however, that she only made a few minor changes that could be carried out with little cost; other obvious mistakes were left uncorrected. For example, based on comments offered by Canger in her review of the first edition of ADN, FK does change the English gloss of tēcciztli from "shell in general, including egg shell" to "shell in general; egg"; and FK also changes mōlcax(i)tl from "stone mortar and pestle" to "stone mortar; soup bowl." Yet other clear and more serious errors pointed out by Canger (including one acknowledged by FK in her reply; a mistaken entry mīyexi, in which the reflexive prefix m(o)- is erroneously analyzed as part of the verbal stem) are not corrected. A solution would have been to point out these errors in a preface to the second edition, while at the same time explaining why (presumably for economic reasons) they were not corrected.

One final comment: in any undertaking such as ADN, theoretical and methodological decisions will be made with which not all scholars would agree. In my original review I mentioned several disagreements, some major and others minor, although I also clearly pointed out that "[this] welcome and much-needed paperback edition... [will] for good reason continue to provide scholars and fieldworkers with a quick-reference compendium on vowel length and glottal stops." Certainly in publishing his or her comments a reviewer must be willing to accept the fact that some authors will be

displeased. A few of them will express their objections in print. FK is certainly entitled to do so and has — besides her long response to my lengthy review of the second edition of ADN she also wrote a six-page reply (Karttunen 1987) to Canger's eight-page review of the first edition (Canger 1986). Usually, however, responses are made public within the journal in which the review originally appeared. In the present case FK has responded (with the same text) not only in the journal where my review was published (Mesoamerica), but also on the Internet (a sort of cybernetic "direct mailing" at <http://www.umt.edu/history/nahuatl/karttun.htm>) and now in the NN. A quote from Hamlet began this review, a line from Macbeth can end it: "methinks [FK] dost protest too much."

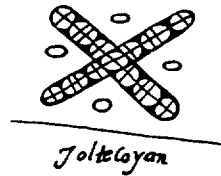
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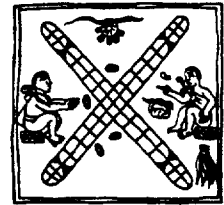
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Panel - Lienzo "A"



Panel - Lienzo B  
Panel - Lienzo B

**ILLUSTRATIONS IN THIS ISSUE**

The drawings in this issue were taken from Los Lienzos de Acaxochitlán (Hidalgo) y su importancia en la historia del poblamiento de la Sierra Norte de Puebla y zonas vecinas = Les Lienzos d'Acaxochitlán (Hidalgo) y leur importance pour l'histoire du peuplement de la Sierra Nord de Puebla et des zones voisines. By Guy Stresser-Péan. Pachuca, Hidalgo: Gobierno del Estado de Hidalgo, Instituto Hidalguense de Educación Media Superior y Superior, Consejo Estatal para la Cultura y las Artes de Hidalgo; México, D.F.: Centre Française d'Etudes Mexicaines et Centraméricaines, Ministère des Affaires Etrangères, 1998. Pp. 276. ISBN 968-6029-63-X.



Mujer con atuendo indígena usando  
rueda de una caja de varilla  
Femina en costume indígena usa  
rueda a caixa var



Hombre con atuendo indígena  
Homem en costume indígena



Incensario  
Encensario



Plato  
Escudo lapata



Tunacal ?  
Bata de sapate /

42. Lienzo "B": juego de panel - trajes y objetos indígenas diversos  
Lienzo "B": jeu de panel - costumes et objets indigènes divers