
Some thirty-plus years ago, toward the beginning of my career as professor of linguistics at BYU, a young Brian Stubbs knocked at my office door to make what was, in my opinion, a wild claim — that he had found a significant number of cognates that would link a New World language family (Uto-Aztecan) to an Old World language family (pre-exilic Hebrew and later others).

My masters and PhD training made me suspicious of Stubbs’s claim because the scholarly consensus was and is that among the thousands of languages spoken in the New World prior to European contact, there was nothing beyond speculation that could tie a New World language to an Old World language — except Eskimo, which is spoken on both sides of the Bering Strait, and likely Athabaskan, centered in Alaska and Canada. The idea of any genetic relationship between Near Eastern languages and Uto-Aztecan seemed out of the question. Nonetheless I listened, a bit intrigued with the data he showed me. I suggested that he apply to the research center FARMS for a summer grant to pursue his interests.

A lifetime later, Brian has established himself as one of the leading Uto-Aztecan comparatists, owing to the many papers he has read at conferences and his many publications in journals the likes of *International Journal of American Linguistics* — but most especially to his massive 411-page book, *Uto-Aztecan: A Comparative Vocabulary*. It is an imposing work, reviewed by Kenneth C. Hill:

> [Page 104] “Part III (pp. 47–420) is the core of the work, the comparative vocabulary. Stubbs numbers the sets 1–2703, but in reality there are many more than 2,703 sets because many subsets are given with numbers like 7a, 7b, 7c, for vocabulary that may or may not be groupable into a single more inclusive set. Each set is discussed in some detail and the serious comparativist will delight in the discussions.” Hill’s final comment was, “All in all, this is a monumental contribution, raising comparative UA to a new level.”

Stubbs’s work effectively doubled the entire number of known correspondence sets, genuinely establishing him as one of the leading Uto-Aztecanists worldwide. In a 2012 email in my possession, Stubbs makes the point that “more than half of the book is original — 2700 sets vs. the 1200 previously known sets.”

There is backstory to all this, however. Stubbs’s earliest interests and training became a lifelong passion. His undergraduate BA from Brigham Young University emphasized Semitic languages, where he took courses in Hebrew, Arabic, and Egyptian. Then, at the University of Utah, he began graduate school, working toward a PhD (ABD), taking courses in Semitic (Hebrew, Arabic, Aramaic). However, his Semitic coursework brought him to courses in linguistics, which captivated him. He changed majors and went on to earn an MA in Linguistics, specializing in Uto-Aztecan (UA) at the feet of Wick Miller and others whose program was at the time the principal center for UA studies. It was the fortuitous connection of his expertise in UA with Semitic, both firmly ensconced in his head, which led him to see ever more correlations between the two.

As he began his scholastic career, his presentations and publications emphasized UA, with little mention of the New-Old World connections. More recently, however, he began to include his Near Eastern insights, but in 2015 he published his crowning work, *Exploring the Explanatory Power of Semitic and Egyptian in Uto-Aztecan*.

**Exploring the Explanatory Power of Semitic and Egyptian in Uto-Aztecan**

Like his earlier 2011 *Uto-Aztecan* publication, his 2015 publication, *Exploring the Power of Semitic and Egyptian in Uto-Aztecan*, is also massive, not only because of its 436 tight, single-spaced pages but also because of the 1500+ well-considered correlations between Semitic/Egyptian and UA. It is an impressive follow-up to his earlier UA work. His 2015 publication deserves the same assessment of the data that has been given to his earlier 2011 publication — even in the face of his [Page 105] unusual claim. It is not in Stubbs’s character to ignore the painstaking, comparative focus apparent in his earlier UA scholarship.
Stubbs’s 2015 publication also raises “comparative UA studies to a new level.” The title, Exploring the Explanatory Power of Semitic and Egyptian in Uto-Aztecan, suggests that “the explanatory power of Semitic and Egyptian” answers “many of the otherwise unresolved questions in Uto-Aztecan [that] eluded UA specialists” over the years. Unknown to Uto-Aztecanists, many of the insights in his 2011 publication resulted from his knowledge of the Semitic/Egyptian correlations. “In fact, the Semitic [and] Egyptian forms proposed to underlie the UA forms often answer questions and explain puzzles in UA that Uto-Aztecanists [had] not yet been able to explain.”

The book has nine chapters, including

1. An Introduction: Basics of Linguistics, Introduction to Semitic Languages, Introduction to Egyptian, Introduction to Uto-Aztecan;
2. The Semitic-\textit{kw}: Contribution to Uto-Aztecan, which suggests remnants of two Hebrew dialectal influences on Uto-Aztecan: a “\textit{kw} dialect” from a Phoenician-like dialect, and a “\textit{p} dialect” from the conservative, pre-exilic dialect, preserved in the Biblical Hebrew language and the closely-related Aramaic dialect (see 5 and 8 below);
3. The Pronouns of Uto-Aztecan, where a significant number of pronouns aligns with Semitic;
4. The Egyptian in Uto-Aztecan, including grammar, sound changes, and prefixed articles (See 2 above);
5. The Semitic-\textit{p} Contribution to Uto-Aztecan (see 2 above);
6. Seven Uto-Aztecan puzzles explained by Egyptian and Semitic, which as mentioned above, contribute to the “power of Semitic and Egyptian in Uto-Aztecan” in explaining unresolved UA conundrums;
7. Other Comparative Matters, Consistencies, and Patterns, which includes a comprehensive summary of transferred patterns: phonology, grammar and morphology, and basic vocabulary;
8. The Aramaic Leaning of the Semitic-\textit{p} Contribution (see 2 and 5 above);

There are also four appendices, which amount to useful indices that both summarize and reference the central part of the book:

1. A: Sound Correspondences, which evaluates two important Semitic infusions, the \textit{kw}-dialect against the \textit{Semitic-p} dialect.
2. B: English Index for the Correspondence Sets.
3. C: Semitic Index in Alphabetical Order of Hebrew Consonants.
4. D: Egyptian Index in Alphabetical Order of Egyptian Consonants.

There is an extensive bibliography, and finally, a brief statement about the author.

**Discussion: The Comparative Method**

The methodology Stubbs follows is called “the comparative historical method,” which, from the 19th century on, has had a long history of remarkable success. Calvert Watkins, among the greatest Indo Europeanists and a renowned practitioner of the comparative historical method, makes this claim: “[T]he Comparative Method is one of the most powerful theories about human language that has ever been proposed — and the one most consistently validated and verified over the longest period of time.”

C.S. Peirce says what philosophy ought to do, but we can readily apply this to what the comparative method does do: The Comparative Method imitates the successful sciences in its methods, so far as to proceed only from tangible premises which can be subjected to careful scrutiny, and to trust rather to the multitude and variety of its arguments than to the conclusiveness of any one. Its reasoning should not form a chain which is no stronger than its weakest link, but a cable whose fibers may be ever so slender, provided they are sufficiently numerous and intimately connected.
Proper application of the comparative method does require tangible premises subjected to careful scrutiny, relying on a variety of arguments sufficiently numerous and intimately connected, capable of clarifying the relationships among languages in the context of language change.

As applied in Stubbs’s work, the comparative method produced “rules of sound change that create consistent sound correspondence, hundreds of vocabulary matches consistent with those sound correspondences, [as well as] grammatical and morphological alignments,” which have produced a quantity of inductive material that form a cohesive body. Taken together, these strands are sufficiently numerous and intimately connected as to stand as a cable in strong support of his hypothesis. The temptation, however, is to cherry-pick a strand or two that might suggest it does not support the hypothesis, thereby “disqualifying” the multitude of strands that constitute the whole. This, of course, is a glaring misappropriation of the replication found in deduction and experimentation, a hallmark of the scientific method.

The comparative method requires originating forms and derived forms found in each daughter language. That is, there are ancestral forms and derived forms that are the product of different sets of rules belonging to each daughter language. Such rules calculate the path of change from the originating forms to the appropriate outcomes found in each daughter language, as briefly sketched below in Table 1. The real value of this method lies in its power of prediction, the ability to systematically account for data that would otherwise be unexplained or even unnoticed outside the mediation of the comparative method. But that is not all. Consistently applied, this method effects an ever-growing understanding of the character, nature, and especially, the telling subtleties that emerge among related languages — their history and their consequent relationships.

So the question naturally arises: Does Stubbs’s work bridge the gap between the seemingly improbable geographic and epistemological distance between Near Eastern and UA language families?

It seems obvious that the answer is impossible without a conscientious examination of what this scholar has laid out in terms of well-established linguistic standards. After all, the data and the logic of his work are now out there, open to authoritative assessment. Of course, it would not be difficult to dismiss the whole of his argument out of hand on grounds that all previous attempts to connect any New World language to European or Middle Eastern languages have been amateurish, even laughable by credible linguistic standards; or that because Stubbs is a Mormon, his scholarship would naturally be tainted and therefore untrustworthy on grounds of aprioristic and biased “expertise,” or that Semitic and Egyptian are related (both are Afro-Asiatic); but the time depth that separates them is so distant as to make it impossible for both to have any correlation as regards UA; or that language contact resulting in truly blended languages (particularly the lexicon) is a rare phenomenon; or that his comparisons use a variety of languages: pre-Exilic Hebrew, Aramaic, and even on occasion Arabic; or that some of the semantic connections are questionable — and so on. Nevertheless, I emphasize that massive amounts of data are there to be evaluated in terms of the well-established comparative historical method. Surely rejection of his work on aprioristic grounds, short of dealing with the data themselves, would be unfair if not misleading.

Whereas it is impossible to capture the breadth and depth of Stubbs’s work in any review — any real evaluation requires consideration of the totality of his work — it might be worthwhile here to touch ever so briefly on some of the data. Let us see a few examples from the thousands ready for inspection in his many publications.

- Semitic $b, d, g >$ UA $p, t, k$; also Semitic $q > k$ (Read: Semitic $b, d, g$ go to UA $p, t, k$):
  - $b > p$:
    - (527) baraq “lightning” > UA *pirok; My berok “lightning”
    - (528) byt / bayit / beet “spend the night, house” > UA *pîti; Tr bete “house”
  - $d > t$:
    - (606) dubur “buttocks, rear” > UA *tupur “hip, buttocks”
    - (607) dob?r “pasture, vegetation” > UA *tupi “grass, vegetation”
  - $g > k$:
    - (57) *siggoob “squirrel” > UA *sikkuC “squirrel”
- Semitic ‘aleph or glottal stop ‘ > w in UA:
Exploring Semitic and Egyptian in Uto-Aztecan Languages

John S. Robertson

- Semitic initial r– t– in UA:
  - (564) Aramaic r?emaan-aa / reemaan-aa “antelope-the” > UA *tîmîna “antelope”
  - (99) rakb-u “they mounted, climbed” > UA *tî’pu / *tîppu “climb up”
  - (889) Aramaic rakbaa / rikbaa “upper millstone” > UA *tîppa “mortar (and/or) pestle”

- The Semitic voiced pharyngeal ? > UA w/o/u, i.e., some form of rounding, as the Phoenician ? symbol > Greek o:
  - (677) ?agol “round” > UA *wakol “round(ed)”
  - (676); paq- “whiteness, species of fungus” > UA *pakuwa “mushroom, fungus” (*q > k)
  - (1197) Hebrew ?aaqeeb “heel, footprint” > UA *woki “track, footprint” (*q > k)

- Many speech sounds remain much the same, such as t, k, p, s, m, n:
  - (52) Hebrew mukk “smitten” > UA *mukki “die, be sick, smitten”[Page 109]
  - (769) *taqipa (sg), *taqipuu (pl) “overpower” > UA *takipu “push”

- There are many other rules that accurately predict the trajectory of changes from Semitic to UA, all of which, when taken together, add up to 1,528 well-considered correspondence sets!

To give a single example of the comparative method and the “many of the otherwise unresolved questions in Uto-Aztecan” that find resolution in terms of the Near Eastern data, consider Table 1.[Page 110]

Table 1: Showing the Semitic source of the UA related forms *kwïkï, *paka, *yaCkaC/*yakka, *takka.

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Rules:</td>
<td>b &gt; kw a &gt; ī</td>
<td>b &gt; p</td>
<td>bk &gt; Ck bk &gt; kk</td>
<td>bk &gt; kk</td>
</tr>
</tbody>
</table>

There are many other rules that accurately predict the trajectory of changes from Semitic to UA, all of which, when taken together, add up to 1,528 well-considered correspondence sets!
Derived Forms:

<table>
<thead>
<tr>
<th>UA</th>
<th>*kwïkï</th>
<th>*paka</th>
<th>*yaCkaC/*yakka</th>
<th>*takka</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>to cry</strong></td>
<td><strong>to cry</strong></td>
<td><strong>to cry</strong></td>
<td><strong>to cry</strong></td>
<td><strong>to cry</strong></td>
</tr>
</tbody>
</table>

Without Semitic, UA comparatists would have to ignore the not-so-obvious relationship of the reconstructed etyma *kwïkï, *paka, *yaCkaC/*yakka, *takka, all of which carry the semantic notion “to cry, to shed tears,” and all of which are derivable from sets of rules that have application to hundreds of other forms. Without the originating Semitic forms, the specifics of these and other relationships would otherwise be impossible to detect.

Two Dialects

Uniting Northwest Semitic and Egyptian with UA sheds light on certain data in UA that would otherwise remain obscure. Among other things, the union reveals two ancient dialects, one the “p-dialect,” which has characteristics of Hebrew/Aramaic and the other the “kw-dialect,” which is Phoenician-like.

Table 2: Showing differences between the p-dialect and kw-dialects

<table>
<thead>
<tr>
<th>p-dialect</th>
<th>kw-dialect</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sem b &gt; UA p &lt;br&gt; (528) Semitic byt / bayit / &lt;br&gt;beet “house, spend the night” &lt;br&gt;UA *payïC “go home”; &lt;br&gt;TrC bete “house” &lt;br&gt;(531) Hebrew boo’ “coming” &lt;br&gt;(used as “way to”) &gt; UA &lt;br&gt;*pooC “road, way, path” &lt;br&gt;(534) Hebrew bâti “daughter” &gt; UA *patti “daughter” &lt;br&gt;(550) Aramaic bï’sår “flesh” &gt; UA *pisa “penis” (from the p-dialect) &lt;br&gt;(559) Semitic *bakay; Syriac &lt;br&gt;baka’ “cry” &gt; UA *paka’ “cry” &lt;br&gt;(plus 36 other examples of Semitic b &gt; UA *p)</td>
<td>Sem b &gt; UA kw &lt;br&gt;(4) Hebrew baašel “cook, boil, ripen” &gt; UA *kwasï “cook, ripe” &lt;br&gt;(5) Hebrew bâá?aar “flesh, penis” &gt; UA *kwasï “tail, penis, flesh” &lt;br&gt;(6) Hebrew baala? “swallow” &gt; UA *kwiluC “swallow” &lt;br&gt;(7) Semitic *bahamat “back” &gt; UA *kwahami “back” &lt;br&gt;(24) Semitic *bakay “cry” &gt; UA *kwïkï “cry” (of the kw-dialect) &lt;br&gt;(plus 20 other examples of Semitic b &gt; UA *kw)</td>
</tr>
<tr>
<td>Aramaic ar &gt; a &lt;br&gt;bï?år &gt; UA *pisa “penis”</td>
<td>Sem ar &gt; ay ~ i &lt;br&gt;Hebrew ba’ar “flesh/penis” &gt; UA *kwašiy “tail/penis” &lt;br&gt;Sem ?o?ï “rod” &gt; UA UA *(h)ucï “tree, stick”</td>
</tr>
</tbody>
</table>
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Sem q-, k-, and g– > PUA *k–
kutōnet “shirt-like tunic” > UA *kutuni “shirt”
Sem qaαlay; Aramaic q?ša’ “be hard, severe, harsh (of taste)” > UA *kiša “sour, harm(ed), bad”

q-, k-, and g– > PUA Ø
Sem kakkar “valley” > UA *aki “arroyo, canyon, valley”

Sem x– > PUA *k–
(1088) *xld “burrow”; xuld / *xld-aa’ “mole-the” > UA *kita “groundhog”
(630) *xole “be sick, hurting” > UA *koli “to hurt, be sick”
(631) xmr “to ferment”; *xamar “wine” > UA *kamaC “drunk”
(632) *xnk “put around the neck” > UA konaka “necklace, string of beads”
(634) *xa? r– > xa?? “hip, haunch, loins” > UA kaca “hip”

The kw-dialect did not have *x because Classical Hebrew preserved the voiceless (?) and voiced (?) pharyngeal fricatives as well as the voiceless (x) and voiced (?) velar fricatives, whereas Phoenician merged ? and x > ?, and ? and > ?. The Phoenician merger had occurred by the eleventh century BC, as evidenced by the speech sounds represented in the earliest Phoenician alphabet. This is significant because, in UA, words that share the merger (leaving only the Phoenician ? and ?) also show Phoenician b > UA kw (kw-dialect), whereas words that maintain the four distinctions (?, ?, x, ?) show Classical Hebrew b > UA p.

There are a large number of other instances showing the difference between pre-exilic Hebrew and Phoenician-like dialects, which find expression in UA.

Language Contact

One of the consequences of languages in contact is the frequent combining of words. For example, in the creole of Martinique, lapo means “skin.” It comes from combining French la peau “the skin” (pronounced lapo). The meaning of la (“the”) was fused with peau (“skin”), such that the separate word la (“the”) no longer exists in the language. Without a knowledge of French, however, it would be impossible to know that the la of lapo used to mean “the.”

[Page 112] A linguist would put it in these terms: “The borrowing of morphologically complex word forms often involves the loss of morpheme boundaries and, hence, the loss of internal morphological structure.” There are numerous such examples in UA.

Patterns of how verbs are conjugated is not productive in UA, but hundreds of fossilized forms of both the suffixed / perfective conjugation (singular yašiha; plural yašib-uu) and the prefixed / imperfective conjugation (yi-/ya-, ti-/ta-, etc) are found in UA.

A telling example is a Hebrew phrase that becomes a single word in UA:
Furthermore, there are other interesting parallels between the Semitic personal pronouns and UA:

Table 3: Showing an example of Semitic grammatical forms preserved in Uto-Aztecan.

<table>
<thead>
<tr>
<th>Hebrew/Semitic sg</th>
<th>Hebrew/Semitic pl</th>
<th>Maghrib Arabic</th>
<th>Nahuatl</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st 'e-/a- “I (verb)”</td>
<td>ni-/na- “we (verb)”</td>
<td>n- “I verb”</td>
<td>ne’wa/nehwa “I”</td>
</tr>
<tr>
<td>2nd ti-/ta- “you sg (verb)”</td>
<td>ti-/ta- ”you pl (verb)”</td>
<td>t- “you verb”</td>
<td>te’wa/tehwa “you, sg”</td>
</tr>
<tr>
<td>3rd yi-/ya- “he (verbs)”</td>
<td>yi-/ya- “they (verb)”</td>
<td>y- “he verbs”</td>
<td>ye’wa/yehwa “he”</td>
</tr>
</tbody>
</table>

The Classical Nahuatl (CN) singular pronoun series — nehwa (I), tehwa (you), yehwa (he) — parallels the imperfective of the Aramaic “be” verb — ‘ehwe, tehwe, yehwe. Though the Nahuatl first person singular (I) form (nehwa) differs from the verb form, the n- of the CN form is analogically like the fundamental n of most Semitic “I/me” forms. In fact, the Maghrib Arabic dialect did the same thing, that is, analogized the impfv verb prefixes to n-, t-, y- (Goldenberg 2001, 86), just like the Classical Nahuatl singular series — nehwa, tehwa, yehwa.

Pre-Exilic (Biblical) Hebrew and Aramaic

Historically, scholars have said that Aramaic came into prominence relative to Biblical Hebrew in post-exilic times, but now a large number of scholars believe Aramaic was a persistent part of Classical Hebrew, and then continued down through the ages.

Very important is the point stressed by experts such as Rendsburg, that a large proportion of the forms considered “Aramaisms” by scholars are rather very likely to be native Aramaic-like features of Hebrew dialects. These Aramaic like features were part of Hebrew from the beginning, and it depended on factors such as authorial preference to what degree they are represented in various literary works from a range of historical periods.

Thus, from the beginning of Israelite history, there were two linguistic strata; literary/formal and dialectical/ colloquial. This situation of diglossia persisted throughout pre-exilic Israelite history and goes a long way toward explaining both the stability of the literary language and the various instances of linguistic diversity in the biblical texts and in the inscriptions.

Thus, if hundreds of instances of Biblical Hebrew are found in the UA families, it follows that hundreds of instances of Aramaic, contemporary with Hebrew through the ages, would be similarly present.

Northern Semitic and Egyptian

Another question that deserves attention was mentioned above: Semitic and Egyptian are related because they have
a common ancestor, Afro Asiatic — but the time depth is so distant as to make it impossible for both to have had any connection with UA. The answer to the “problem,” however, is not far to seek. In a much later stage, long after Hebrew and Egyptian had emerged from Afro-Asiatic as distinct languages, there are well-attested instances of bilingualism where pre-exilic Hebrew/Arabic is written in Egyptian text (Demotic). In 1983 Nims and Steiner wrote in the *Journal of the American Oriental Society*, “A Paganized Version of Psalm 20:2–6 from the Aramaic Text in Demotic Script.” Here is an Aramaic scripture written in Egyptian characters. In 1984 the same authors produced, “You Can’t Offer Your Sacrifice and Eat It Too: A Polemical Poem from the Aramaic Text in Demotic Script.” In 1991 Richard C. Steiner, in the *Journal of the American Oriental Society* wrote this article: “The Aramaic Text in Demotic Script: The Liturgy of a New Year’s Festival Imported from Bethel to Syene by Exiles from Rash.” There are other instances of Aramaic written in Demotic, all of which witness that a certain Egyptian-Northern Semitic bilingualism was a factual reality.

**Conclusion**

As a practitioner of the comparative historical method for 40+ years, I believe I can say what Stubbs’s scholarship does and does not deserve: It does not deserve aprioristic dismissal given the extensive data he presents. It does deserve authoritative consideration because, from my point of view, I cannot find an easy way to challenge the breadth and depth of the data.

**Endnotes**

1. The word *cognate* comes from Latin *cognatus*, meaning “blood relative [lit. ‘born together.’]” For linguists, cognates are words found in related languages that descend from a common source. For example Latin is the common source of the daughter forms found in Italian, Spanish, Catalan, and French. *Otto*, *ocho*, *vuit*, *huit*, which are cognates descending from their Latin ancestor, *oct?* “eight.”

2. Pre-exilic, Biblical Hebrew is the Semitic language spoken circa 1000 to 600 bc, before the Israelites were taken captive by King Nebuchadnezzar II of Babylon, which prompted watershed changes in the Biblical Hebrew after that. Uto-Aztecan is an Amerindian language family sporadically distributed from Northern Wyoming through the American Southwest, through Northwestern Mexico to Southern Mexico continuing as far South as San Salvador — a language family of an unusual geographic distribution.


5. With some justification, there has been some criticism that the book was not published in some well-established press. However, given the attitude of the scholarly world regarding such an out-of-paradigm claim, finding such a publisher would almost certainly have been impossible.


11. While it is true that Arabic is rarely used, Stubbs is careful in its use. Consider the fact that Classical Hebrew does not record a word for “squirrel,” but Arabic has *singaab*, which would give Hebrew *siggoob*, by two rules (*aa > oo* and *ng > gg*). This gives UA *sikkuC* “squirrel” by the rule *g > k* and, conditionally, *o > u*. Furthermore, there is a strong argument that diglossia was a feature of Classical Hebrew, such that Hebrew was the prestige language, and Aramaic was the common, spoken language. See Marsha White, review of *Diversity in Pre-Exilic Hebrew*, by Ian Young, *Journal of Biblical Literature* 116, no. 4 (1997): 730–732.
12. As a shorthand way of saying Semitic b become UA p, linguists symbolize it thus: Semitic b > UA p.
13. For two Semitic dialects, see Table 1.
14. Syriac is a Western dialect of Aramaic.
15. Jo Ann Hackett, “Phoenician and Punic,” in The Ancient Languages of Syria-Palestine and Arabia (Cambridge, MA: Cambridge University Press, 2008), 84. This same merger occurred centuries later in post-exilic Hebrew.
19. Ibid., 338.
20. Ibid., 335.
21. Ibid.
23. White, review of Diversity in Pre-Exilic Hebrew, 73