Interrogative Verbs in Takic

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Introduction

A Google Scholar search for "interrogative verbs" brings up mostly references to verbs of asking, verbs with interrogative affixes, or verbs used in questions. A number of languages, however, have special verbs that include a semantic wh element in addition to their more typical question words. Verbs like this have not been extensively described, although Hagège (2003, 2008) suggests they are more common than most linguists realize: "Interrogative verbs," he writes, "can teach us many interesting things about certain relatively hidden, or unheeded, properties of language" (2008: 38). Hagège's broad survey turned up 28 languages with verbs of this type, including four from different North American indigenous language families. In this paper I'll consider interrogative verbs in four languages from the Takic subfamily of Uto-Aztecan (all from Southern California), which is unrelated to the languages surveyed by Hagège.

I begin by explaining (in section 1) what interrogative verbs are (and are not), using non-Takic examples, and then I'll describe the interrogative verbs in the Cupan and Gabrielino/Tongva/Fernandeño branches of Takic (in section 2). In section 3 I consider briefly some of the typological and theoretical implications of such verbs.

1 What is an interrogative verb?

An interrogative verb is a verb that includes a semantic wh element and is used in wh questions. Thus, a verb of asking (1), an ordinary verb used in a wh question (2), or a verb with an interrogative affix such as the Chickasaw -taa suffix that appears in (3) is not an interrogative verb (as I will use the term). 2 (Chickasaw, a Muskogean language of Oklahoma, 3 is related to Creek, one of Hagège's example languages.)

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1 I am grateful to audiences at the UCLA American Indian Seminar, the Friends of Uto-Aztecan conference, and LASSO for input on earlier versions of this paper. Heidi Harley and Marcus Smith made especially helpful comments.

This paper is dedicated to Edward Keenan in celebration of 38 years of typological solidarity and fun.

2 Abbreviations used in the examples include abs: absolutive, acc: accusative, cl: verb class, conj: conjunction, cop: copula, def: definite, dur: durative, fut: future, inc: incomplete, ind: indefinite, int: interrogative, mod: modal, neg: negative, nom: nominative, nzr: nominalizer, obj: object, pist: present imperfective singular, poss: possessive, pro: pronoun,prs: present singular, pssd: possessed, pt: past/perfective, Q: question, subj: subject, wh: wh interrogative element. 1, 2, 3, s, and p indicate person and number features; I, II, and III are pronominal agreement classes in Chickasaw. Many examples illustrate various phonological alternations that I cannot comment on here. I use approximately the same glosses as in the sources cited (a few very small changes were made for consistency), except as indicated.

3 As always, of course, I am extremely grateful to my Chickasaw teacher Catherine Willmond and to the

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I asked him who he was.

Who saw him?

Did he jump? (Chickasaw)

Rather, an interrogative verb is one like Chickasaw katihmi 'to do what', as in (4), vs. the corresponding non-interactive verb yahmi 'to do' (5). (In the remainder of this paper I box the interrogative verbs.)

(4) a. Ish-\text{katihm}\text{-a'chi}?  
\text{2sl-do.what-inc} 'What are you going to do?' (Chickasaw)

b. Hattak-at \text{katihm}\text{-a'chi}?  
\text{person-nom do.what-inc} 'What is the man going to do?'

(5) a. Ish-yahm-a'chi.  
\text{2sl-do-inc} 'You're going to do it' (Chickasaw)

b. Hattak-at yahm-a'chi.  
\text{person-nom do-inc} 'The man is going to do it'

As I show below, interrogative verbs often have indefinite uses, or are closely related to verbs with indefinite uses, just as in many languages where words of other categories may be used as indefinites, or are closely related to indefinites.

2 Uto-Aztecan (Takic): Cupan and Tongva

Within the Takic sub-branch of Uto-Aztecan, the Cupan languages (Luiseño, Cahuilla, and Cupëno) and Gabrielino/Tongva/Fernandeño (henceforth Tongva) have interrogative verbs. All these languages, which are or were formerly spoken in Southern California, either have no current speakers or are very critically endangered.
2.1 Cupeño interrogative verbs

Cupeño interrogative verbs were first noted (I believe) by Jacobs (1975: 121f), who presents a succinct description of verbs meaning variously 'be how'/'have what happen'/'for what to happen'/'do what', as illustrated by Cupeño (6):

(6)  na=ni  miyaqa?
     1s.pro=1s  ind-cop-dur.prs
 'What happened to me?' (Cupeño)

Jacobs analyzes the verb in (6) as including an indefinite prefix m- on a copular verb iya, which can mean 'say', 'do', or 'be', as well as 'happen'. Note that there is no word for 'what' in this sentence: the verb alone conveys the interrogative meaning.

As Jacobs notes, verbs like Cupeño miyax also have indefinite uses, as in (7):6

(7)  Ne=en tum miyaqa pe-yaqa.
     1s.pro=1s.abs truly ind-do-prs def-do-prs
 'I'm doing everything [i.e., truly something] as best I can' (Cupeño)

(Hill 2005: 285)

The second verb I'll illustrate here is hiyax 'say (what/something/...)', which has a different prefix (most likely connected with the independent question word 'what') on the yax root. My examples below are from Cahuilla. (8) contrasts an interrogative with prefixed hi-ya (a) with a non-interrogative sentence with an unprefixed verb (b):

(8)  a. 'e-hi-yaqa-?
     2s-wh-say-dur.past 'What did you say?' (Mountain Cahuilla)

b. "Miyaxwe," ya-qa-.
    hello say-dur.past 'He said, "Hello."

The same Cahuilla verb as in (8) is used interrogatively in the first part of (9) and indefinitely in the second part (which also contains another indefinite use of the miyax 'be' verb).

(9)  pen ne-hi-ya-ne kil ne-Éx-ap miyax-we.
        conj 1s-ind-say-fut neg 1s-ind-say-mod ind-be-dur
 'Well, then, what shall I say? There's nothing for me to say' (Desert Cahuilla)

(Seiler and Hioki 1979: 58) 7

Jacobs also suggests that such verbs may also have apparent non-interrogative, non-indefinite uses (1975: 122), as in

Me ne aya awel'ēv ne-miayax-wen.6
     1s.pro then grown 1s-be-pist
 'And I was grown up then' (Hill 2005: 284) (Cupeño)

(It seems likely that this actually means something like 'And I was somehow, namely grown up, then'.)

Jacobs and Hill disagree somewhat about the analysis of the Cupeño verb miyax, but I think both would agree that this disagreement is primarily related to their differing historical viewpoints: Jacobs always glosses the root yax as 'cop', while Hill's glosses relate more to the form's uses in the sentences at hand.)
As far as I know, however, the 'say' verb *hiyax* has no non-indefinite, non-interrogative uses in Cupan (Jacobs does not discuss this verb) — I have seen none in Cahuilla, and while Hill (2005: 286) and Elliot (1999: 337) both suggest there may be such uses in Cupeño and Luiseño, in fact all the examples they cite are susceptible of an indefinite 'say something' interpretation (the evidence against this would be an explicit object, like the 'hello' in (8)(b)).

One apparent difference between Luiseño and the other two Cupan languages is that it appears that in Cahuilla and Cupeño the indefinite use of *hiyax* is only negative, as illustrated for Cahuilla in the second half of (9) and noted explicitly by Seiler and Hioki (1979: 57). Hill does not mention any such Cupeño restriction, but her three non-interrogative examples are all negative (2005: 286). However, Elliot gives many non-negative non-interrogative examples of the Luiseño verb he cites as *híx*, such as

(10) Pā'Supku wám' pó' hish más 'ayá'yich-i *hi-yx*-uk.
    and.so already 3s.pro what.acc more funny.acc ind-say-dur
    'And so then someone would say something funny'     (Luiseño)
    (Elliot 1999: 338, adapted)

A full list of Cupan indefinite/interrogative verbs and related cognate elements is given in Table 1. Cupeño words in the table are from Hill (2005), who presents by far the most careful discussion of these words; most Cahuilla words are from Seiler and Hioki (1979), and most Luiseño words are from Elliot (1999).

- The group of words before the first heavy line in the table are basic verbs, all of which are documented as interrogative verbs except the last set, whose meaning seems similar enough that they should be considered along with the other verbs.8
- The group of verbs before the second heavy line includes causatives of verbs in the first group.
- The third group of words are lexicalized same-subject subordinate derivatives of verbs in the second group, meaning variously 'how', 'thus', and 'that way'.
- The fourth and final set of cognates are words meaning 'hello' (as in (8)(b)), all presumably derived from 'how are (you)', 'how is (it)', or perhaps 'what's happening'?.

Some of the definitions of verbs in the table may appear not to support my claimed indefinite/interrogative use; I base this classification on the cited examples in each source. I have not exemplified here the third and fourth basic verbs in the table. The third verb, *'iyax*, is explicitly discussed in as a member of this group by Jacobs and Hill. The fourth, *'ayax*, seems to be comparable in its indefinite meaning, but appears to have no interrogative uses. However, it is clearly the source of some of the later Luiseño words in the table.

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7 I replace Seiler and Hioki's l-tilde with a sequence. The gloss here is mine.
8 I have conflated verbs containing –y- with those that don’t, despite Hill’s discussion of the paradigmatic differences between these groups; I acknowledge that this may be a mistake.
There's a final syntactic point to demonstrate about the Cupan '... what' verbs, which actually have two separate uses. As (11) shows, these verbs may apparently be used either intransitively, with no object (a), or transitively, with an explicit 'what/something' object (b):

(11)  
  a. Hem-[hi-yax]-we? 
       3p-ind-say-dur    "What are they saying?" (Mountain Cahuilla) 
  
  b. Hich'a-y hem-[hi-yax]-we? 
       what-acc 3p-ind-say-dur "What are they saying?"

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9 Hill notes: "A curious fact about the mix, hix, ix series is that, while they are stressed stems, they exhibit vocalic augments before ablauting suffixes. Thus they are in an intermediate category between the fully stressed stems, which do not have vocalic augments in ablauting contexts, and the stressless roots, which shift stress to prefixes and suffixes in contexts" (288); "The answer here probably lies in the fact that the prefixes mi-, hi-, i- fix the stress; unprefixed yax, the probable root, is stressless when it is not prefixed." (293) (Cupan stressless roots are discussed by Hill and Hill 1968.)

10 Elliot gives a number of additional non-question, non-indefinite translations (most unusually perhaps 'carry on', presumably in the sense of 'make a fuss'), but his examples suggest there is probably always an indefinite present semantically in non-questions.
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Each language has examples of both of these uses of the basic verbs in the table.

(However, does (11)(b) actually represent a transitive use of hiyax? Cahuilla verbs with a third-person singular object and a third-person plural subject, like (11)(b), normally have a pe-m- prefix rather than the hem- prefix in (11)(b), with the pe-morpheme showing agreement with the third-person singular object (Sauvel and Munro 1981). So possibly the 'what' here is a non-argument complement (cf. Munro 1982 for ideas along this line concerning complements of 'say').)

2.2 Tongva interrogative verbs

Available documentation of the Takic language Gabrielino/Tongva/Fernandeño (Tongva), which has had no native speakers for over 50 years, reveals a question verb miyii 'say what?'\(^{11}\) that can be used with or without a complement 'what'.

\[(12) \quad \text{Miyii}=\text{ha}'? \quad \text{say.what}=\text{Q} \quad '\text{What does he say?}' \quad \text{(Tongva)}\]

\[(13) \quad \text{Hitaa}=\text{a} \quad \text{miyii} \quad '\text{ooma}'? \quad \text{what}=\text{2s} \quad \text{say.what} \quad \text{you} \quad '\text{What do you say?}'\]

The verbal status of this word is confirmed by its use in (14) with the future suffix -ro, which occurs only on verbs:

\[(14) \quad \text{Miyii}=\text{ro}'=\text{a} \quad \text{maay}=\text{ro}'? \quad \text{say.what-fut}=\text{2s} \quad \text{do-fut} \quad '\text{What are you going to do?}' \quad \text{(i.e. 'What do you say you are going to do?')} \quad \text{(Tongva)}\]

Unlike the 'say (what)!' verbs in Cupan, however, Tongva miyii does not seem to be analyzable: the usual verb for 'say' is chwee'-. (The language also has a 'thus' quotative construction.)

The simple question words 'who?', 'what?', and 'how much?' are also (more or less) unanalyzable in Tongva, but various forms of 'where?' as well as 'when?' and one 'how?'/"why?" word all share the same root (hamii-), which probably is composed of =\text{ha}', the question clitic seen in (12) (Munro 2000), plus the same root in miyii. In addition to what appears to be its basic 'say what?' meaning, miyii also is used to mean 'say how?' and, apparently, 'be how?'. While example (14) shows that miyii clearly has verbal status, examples like (15) suggest that miyii, with or without the question clitic =\text{ha}', is also used to mean simply 'how?', as in

\[(15) \quad \text{Miyii}=\text{ha}' \quad \text{xaa} \quad '\text{a-maa-n}? \quad \text{how/say.what}=\text{Q} \quad \text{be} \quad \text{3s.poss-hand-pssd} \quad '\text{How is his hand?}' \quad \text{(Tongva)}\]

\(^{11}\) Most Tongva verbs have one of four class endings, -k, -ax, -nok, or –nax. Miyii does not, but there are other groups of irregular Tongva verbs that work similarly (including 'be', 'go', 'come', and other cognates to the Cupeño stressless roots (Hill and Hill 1968)).
Miyii=ha’       mokáa-nax?
how/say.what=Q=2s.subj>3s.obj   kill-cl
'How did you kill him?'          (Tongva)

By itself, the word miyii=ha' was also used as a greeting, just like the
cognate 'hello' words in Cupan (Table 1, last line). So a sentence like (12) could also mean 'Hi!' (or 'Say what?).

However, the Tongva verb miyii means (according to the documentation) only 'say what'. There is no evidence that this verb can have the wider meanings of the apparently cognate verbs in Cupan (Table 1) that mean 'be what', 'do what', or 'happen'.

I also have no evidence of indefinite uses of Tongva miyii, but I would guess this may just be a gap in the data. Indefinite uses are documented for other Tongva wh words, such as hitaa 'what'.

2.3 Interrogative verbs elsewhere in Uto-Aztecan

There seems to be no evidence of interrogative verbs in the third subgroup of Takic, Serrano-Kitanemuk (Marcus Smith, p.c.), nor have I seen any elsewhere in Uto-Aztecan. Perhaps, then, this Cupan-Tongva feature may be a syntactic borrowing from the neighboring Yuman family (all languages of which have interrogative and indefinite verbs), which have influenced Takic in other ways as well.

3 The typology of interrogative verbs

3.1 Hagège's survey

Hagège (2008) presents the results of a survey of 217 languages, 28 of which, he finds, have interrogative verbs. (One of these, Creek, is a Muskogean language related to Chickasaw; another, Jamul Tiipay, is a Yuman language (cf. section 2.3); Hagège does not consider any Uto-Aztecan languages.) A number of his general observations are borne out by the data we have seen here.

We have seen examples of most of the frequent meanings Hagège cites, including especially 'do what', 'say what', and 'do how', as well as 'be what'.

Hagège reports that interrogative verbs are often used in "serial structures" or, alternatively, as "secondary predicates" (10ff). None of the languages considered here uses prototypical serialization (though possibly structures like Tongva (14) come close), but the Cupan examples show interrogative verbs in subordinate or coordinate structures. Oddly, though, all the examples of such constructions Hagège presents express the non-argument interrogatives 'how' and 'why' rather than 'what'.

Hagège also mentions that, just as non-verbal interrogatives may have a syntactic or morphological relationship with indefinites, this may be true of verbs as well, and this too

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12 Smith suggests that some complex expressions that look similar to the interrogative verbs in Cupan and Tongva have indefinite uses.
13 I mentioned this in my presentation to the Friends of Uto-Aztecan meeting in 2008 and was not contradicted.
14 As one example, the Cupan languages Cupeño and Cahuilla are believed to have developed their palatal /l/ phoneme under the influence of Yuman.
is true of the Cupan interrogative verbs at least (I don't have specific evidence of this in Tongva, but since it's true of Cupan this is probably just a gap in the data).

I've extensively studied two other languages with interrogative verbs, the Muskogean language Chickasaw (exemplified in section 1) and the Yuman language Tolkapaya Yavapai. Table 2 below presents a comparison of various features Hagège notes in the interrogative verbs of Takic and these two additional languages, showing that the features of the Takic verbs are quite similar to those of other interrogative verbs.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Takic</th>
<th>Chickasaw</th>
<th>Tolkapaya</th>
</tr>
</thead>
<tbody>
<tr>
<td>behave both as verbs and as question words</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>occur in sentences which normally do not contain a polar question marker</td>
<td>√ (may co-occur)</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>should not be confused with verbs inflected for interrogative mood</td>
<td>√</td>
<td>√</td>
<td>√</td>
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<tr>
<td>are distinct from predicatively used interrogative words</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>are morphologically and semantically related to indefinites</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>in general are synchronically unanalyzable</td>
<td>partly</td>
<td>partly</td>
<td>no</td>
</tr>
<tr>
<td>have core meanings that form part of the most fundamental contents in linguistic communication</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
</tbody>
</table>

Table 2: Some Features of Interrogative Verbs (after Hagège 2008)

3.2 Interrogative verbs and syntactic theory

As Hagège (2008: 2) observes, theoreticians such as Donegan and Stampe (1983: 339) have denied that it's possible to for a verb to include an interrogative feature: "for any operator there exists an interrogative word, so that it can be questioned vis-à-vis the operand, but there are no operand-interrogatives".17

3.2.1 Are interrogative verbs really just indefinite verbs?

One approach to the problem of analyzing interrogative verbs was suggested by Heidi Harley (p.c.): perhaps a question like "What did John do?" (or 'What did John eat?') should be seen as a yes-no question containing an indefinite, like 'Did John do something? ('Did John eat something?), so that we could view fuller responses than just 'Yes' and 'No' as Gricean cooperation ('(Yes), he sang'; '(Yes), beans').

I'll consider arguments against this interesting proposal for Chickasaw (since I have most data on this language).

If *wh* questions clearly contrasted intonationally with yes-no questions, that would be a powerful argument. Unfortunately, for Chickasaw, there seems to be no difference in intonation (Matthew Gordon 1999, 2005, p.c.). So potential intonational differences

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15 I thank the late Molly Star Fasthorse for my understanding of the Tolkapaya data.
16 Thanks to Marcus Smith for discussion of some of the issues in this section.
17 Donegan and Stampe explicitly deny the possibility of questions like "*WH-Verb he a book?" (339), noting "This seems to be a novel observation, but Aristotle anticipated it in using interrogative phrases to define his categories, which were to figure centrally in medieval syntactic theory" (351).
provide no argument here.
But consider question pairs like the following:

(17) John-at (nanta-hta) kati-h-tok? (Chickasaw)
    John-nom (what-int.acc) do.what-pt
    'What did John do?'

(18) John-at nanna-hma kan-h-taa-m?
    John-nom something-ind.acc do.ind-Q-pt
    'Did John do something?'

Crucially, the questions are different in a number of ways. In Chickasaw, indefinites like *nanna* 'something' include a medial –*n*-, while interrogatives like *nanta* 'what?' include –*t*-. (Although other languages considered here don't make a similar distinction, many require a special the presence of a special indefinite morpheme, such as Tolkapaya 'mőo, to give the indefinite meaning. Alternatively there may be an interrogative morpheme, like Luiseño *Su*, whose presence or absence differentiates minimal sentence pairs comparable to (17)-(18).)

Another difference involves the "polar question marker" –*taa* (seen in (18)). Usually Chickasaw *wh* interrogatives use normal tense/aspect marking, like the past/perfective –*tok* in (17).

The object 'something' apparently can't be omitted in (18), although as seen above the object 'what' can be omitted in (17).

Finally, responses to these questions are different. In Chickasaw, *ji* 'yes' and *ki'yo* 'no' are always among the acceptable responses to yes-no questions like (18). In contrast, these are never acceptable responses to *wh* questions like (17).

(This argument is language-specific, but quite suggestive. Unfortunately the demographic state of the Takic languages makes it unlikely that we will ever know exactly how Harley's suggestion would play out for them.)

3.2.2 Do interrogative verbs derive their meaning via synchronic incorporation?

Another approach might be to view interrogative verbs as having incorporated a nominal *wh* word (an "operator") onto a pro-verb. In the case of the Cupan verbs for 'say what' (e.g., *hiyax*, with *yáx* 'say' and a standard Takic 'what' like *hi-sh*), this seems highly plausible, but it's harder to argue in other cases without resorting to abstraction.

The other Takic interrogative verbs, including Tongva 'say what', don't seem connected with words for 'what'.

In the Chickasaw and Tolkapaya interrogative verbs I've documented, only Chickasaw 'say what' seems easily susceptible of such a componential analysis. The most basic Chickasaw interrogative verb, *katihmi* ((4), (17)), could be connected with *yahmi* 'do' (as in (5)) (in which *ya-* is most likely a demonstrative element) — but the *kat(i)* element at the beginning of *katihmi* looks more like *kata* 'who' than like *nanta* 'what', and the same element occurs in all the other Chickasaw *wh* verbs, even, for example, *kattohmi* 'be how many'.
3.2.3  *Interrogative verbs and wh movement*

Chickasaw and Tolkapaya are SOV languages that do not have obligatory overt *wh* movement: examples like (17) illustrate *wh* words in situ. In contrast, non-verbal question words in the Takic languages normally appear initially, as in other Uto-Aztecan languages, which generally have very flexible word order. But this does not seem to be true of the Takic interrogative verbs. The only Takic interrogative verb question clause with more than one word cited here, Cupeño example (6), does not begin with its interrogative verb, suggesting that *wh* movement may work differently with interrogative verbs than with non-verbal question words.

Again, we may not be able to develop rigorous arguments about the interrogative verbs and *wh* movement with regard to Takic because of the demographics of these languages, but the data considered here reinforce the idea that interrogative verbs are clearly of great interest typologically.

**References**


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