Constituent Questions in Chungli Ao

I. Introduction

Constituent questions in Chungli Ao are formed by wh-in-situ, in which a wh-word (interrogative pro-form) appears in place of the constituent being questioned. There is no evidence of obligatory wh-fronting, even when the wh-word is embedded. This descriptive study presents all the wh-words of Ao (i.e., as many as are currently known to the author) and demonstrates their usage in both matrix and embedded clauses.

Examples from Ao are given in the class transcription system, with morpheme glosses in the Leipzig format. Obvious borrowings are enclosed in angle brackets (<>). The semi-mysterious =i clitic on subjects is glossed as =I. Tones and tone contours are mostly omitted for the sake of readability, except where they are significant or when introducing the first instance of a single lexeme, in which cases they are represented by superscripted numbers (1=low, 2=mid, 3=high).

II. Wh-words & Matrix Clauses

The following subsections discuss the Ao wh-words (Table 1) and demonstrate their usage in matrix clauses.

<table>
<thead>
<tr>
<th>English</th>
<th>Ao</th>
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<tbody>
<tr>
<td>who?</td>
<td>Si²pa7¹</td>
</tr>
<tr>
<td>who all?</td>
<td>Sir'nuk¹</td>
</tr>
<tr>
<td>what?</td>
<td>kV²Si³</td>
</tr>
<tr>
<td>which?</td>
<td>ku²pa7¹</td>
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<tr>
<td>whose?</td>
<td>Si²pa7¹ (in²tang²)</td>
</tr>
<tr>
<td>when?</td>
<td>ku²tang³</td>
</tr>
<tr>
<td>why?</td>
<td>kV²Si³pa7¹</td>
</tr>
<tr>
<td>where?</td>
<td>kung³</td>
</tr>
<tr>
<td>to where?</td>
<td>kV²Si³=i²</td>
</tr>
<tr>
<td></td>
<td>ku³len³=i²</td>
</tr>
<tr>
<td></td>
<td>kung³=i²</td>
</tr>
<tr>
<td>from where?</td>
<td>kV²Si³=nu³ngi²</td>
</tr>
<tr>
<td></td>
<td>ku³len³=nu³ngi²</td>
</tr>
<tr>
<td></td>
<td>kung³=nu³ngi²</td>
</tr>
<tr>
<td>how?</td>
<td>ku³ta², ku³ma¹</td>
</tr>
<tr>
<td>how many?</td>
<td>kui³</td>
</tr>
<tr>
<td>how much?</td>
<td>ku³ta³kha¹</td>
</tr>
<tr>
<td>how long? (how much time?)</td>
<td>ku³pi¹kha¹</td>
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</table>

Table 1: Ao wh-words
A. Wh-arguments

• With regard to word order, Ao sentences are strictly verb-final, with SO being the dominant pattern for the other arguments. A constituent question is formed by the presence of an in-situ wh-word, as illustrated in the following three examples with the wh-argument Sipa7 ‘who’ replacing constituents in subject, object, and oblique positions:

(1) Subject
a. \( pa\ tsI\ awa-r. \)
   3SG.M water swim-IPFV
   He is swimming. [Ao_MI_12Sep08_5_DB.WAV; 2:02]

b. \( Sipa7\ tsI\ awa-r? \)
   who water swim-IPFV
   Who is swimming? [Ao_MI_25Nov08_1_DB.WAV; 0:46]

(2) Object
a. \( na=i\ ni\ angwu. \)
   2SG=I 1SG saw
   You saw me. [Ao_MI_12Sep08_2_AB.WAV; 13:20]

b. \( na=i\ jaSi7\ Sipa7\ angwu? \)
   2SG=I yesterday who saw
   Who did you see yesterday? [Ao_MI_04Dec08_1_DB.WAV; 8:46]

(3) Oblique
a. \( pa=i\ kV=tak\ azIk-Vr. \)
   3SG.M=I 1SG.GEN‘at’ hit-IPFV
   He is hitting me. [Ao_MI_18Sep08_1_DB.WAV; 9:37]

b. \( na^\dagger\ Sipa7=tak\ azIk-Vr? \)
   2SG who=at hit-IPFV
   Who are you hitting? [Ao_MI_25Nov08_1_DB.WAV; 1:19]

In subject position, Sipa7 ‘who’ can also appear with the \( =i \) ergative case marker (with loss of the glottal stop):

(4) \( Sipa=i\ ne=tak\ azIk-Vr? \)
   who=I 2SG.GEN=at hit-IPFV
   Who is hitting you? [Ao_MI_25Nov08_1_DB.WAV; 1:42]

* Note that \( kV \) is simply the form that \( ni ‘I, me’ \) takes when it is followed by a postposition (e.g. \( kV=tak ‘at me,’ kV=enem ‘to/for me’). However, since this \( kV \) is homophonous with (or identical to) the 1SG possessive pronoun (e.g. \( kV\ thula ‘my shirt’), I gloss all instances of \( kV \) as genitive as a way to distinguish them from \( ni \) (pending a better analysis that unites genitive and postpositional case).

† This may be a speech error, as the subject should probably be \( na=i \) instead of \( na \) (cf. examples (3a) and (4)).
Ao also has the wh-word *Sirnuk* ‘who(pl.),’ which appears to be comparable in usage to the English wh-phrase ‘who all.’ (According to MI, *Sirnuk* means “a lot of who’s.”)\(^1\)

5) \(na=i\) jaSi7 *Sirnuk* atSuru?
\(\text{2SG=1 yesterday who.PL met}\)
Who all did you meet yesterday?  \[Ao\_MI\_11Dec08\_1\_DB.WAV; 24:17\]

- The examples in (6-8) illustrate the use of the Ao wh-argument *kVtSi* ‘what’ in subject (6), object (7), and oblique (8) positions:

6) \(kVtSi\ tsIk?\)
\(\text{what fell}\)
What fell?  \[Ao\_MI\_11Dec08\_1\_DB.WAV; 22:17\]

7) \(na\ kVtSi\ atSi-r?\)
\(\text{2SG what eat-IPFV}\)
What are you eating?  \[Ao\_MI\_05Dec08\_7\_DB.WAV; 0:40\]

8) \(na\ kVtSi=tak atep-Vr?\)
\(\text{2SG what=at beat-IPFV}\)
What are you beating on?  \[Ao\_MI\_05Dec08\_7\_DB.WAV; 1:42\]

- The Ao wh-word *kupa7* ‘which’ appears to follow its noun in some sentences (9) but precede it in others (10). However, my data is too limited at this point to make any solid observations about the distinguishing contexts. (Note that although (9) and (10) are differentiated by tense, other data indicates that tense is not the deciding factor.)

9) \(na\ khakVt\ kupa7\ azIng-Vr?\)
\(\text{2SG book which read-IPFV}\)
Which book are you reading?  \[Ao\_MI\_25Nov08\_1\_DB.WAV; 2:36\]

10) jaSi7 \(na=i\ kupa7\ khakVt\ azIng?\)
\(\text{yesterday 2SG=1 which book read}\)
Which book did you read yesterday?  \[Ao\_MI\_11Dec08\_1\_DB.WAV; 9:51\]

- Finally, ‘whose’ is expressed in Ao by use of *Sipa7* ‘who’ immediately preceding a noun, with the noun *intang* ‘belonging’ sometimes appearing in between (12):

11) \(na\ Sipa7\ khakVt\ azIng-Vr?\)
\(\text{2SG who book read-IPFV}\)
Whose book are you reading?  \[Ao\_MI\_11Dec08\_1\_DB.WAV; 16:21\]

12) ipa7=ja *Sipa7* intang khakVt?
\(\text{this=1A who belonging book}\)
Whose book is this?  \[Ao\_MI\_20Nov08\_1\_DB.WAV; 51:56\]

\(^1\) Special thanks to Lola for having the intuition to ask MI for ‘who all,’ without whose help I probably would never have discovered *Sirnuk.*
B. ‘When’ & ‘Why’

• In declarative sentences, Ao time words can appear either before (13) or after (14) the subject:

(13) *jaSi7 ni3 sIng atzIk.
    yesterday 1SG:1 wood burned
    I burned the wood yesterday.        [Ao_MI_07Nov08_8_LN.WAV; 9:49]

(14) la=i *jaSi7 <kari> Situk.
    3SG.F=1 yesterday car washed
    She washed the car yesterday.       [Ao_MI_07Nov08_10_RE.WAV; 7:25]

In constituent questions, however, the wh-word kutang ‘when’ cannot precede the subject, but must follow it in the clause:§

(15) When did you go home?             [Ao_MI_05Dec08_7_DB.WAV; 15:23, 15:42, 14:57]

a. *kutang na kitang=i au?
    when 2SG home=toward went

b. na kutang kitang=i au?
    2SG when home=toward went

c. na kitang=i kutang au?
    2SG home=toward when went

• The wh-word ‘why’ in Ao is kVtSipa7** and immediately follows the subject in matrix constituent questions:

(16) na kVtSipa7 atSi injak-Vr?
    2SG why that do-IPFV
    Why are you doing that?             [Ao_MI_25Nov08_1_DB.WAV; 25:05]

C. ‘(To/from) Where’

• The following examples illustrate the use of the wh-word kung ‘where,’ with a question-answer pair in (18):

(17) *jaSi7 kung tSiung?
    2SG yesterday where ate.rice
    Where did you eat yesterday?       [Ao_MI_11Dec08_1_DB.WAV; 2:50]

(18) a. thula kung lir?
    shirt where COP
    Where is the shirt?                [Ao_MI_26Sep08_11_LN.WAV; 0:51]

§ Note that MI preferred the pattern in (15c) for this sentence, with kutang next to the verb, but consistently used the pattern in (15b) for embedded clauses, with kutang immediately following the subject (see example (34)).

** Perhaps morphologically related to kVtSi ‘what’ in some way.
b. thula <kutSal>=nung juwa lir.
   shirt nail=on placed COP
The shirt is placed on the nail.  [Ao_MI_26Sep08_11_LN.WAV; 1:17]

- Ao also has a number of options for expressing a directional ‘where,’ which involve cliticizing =i ‘toward’ or =nungi ‘from’ onto kVtSi ‘what,’ kung ‘where,’ or kulen ‘which direction,’ as illustrated in the following examples:

(19) Where are you going?  [Ao_MI_20Nov08_1_DB.WAV; 52:14, 52:54, 52:21]

   a. na kVtSi=i au-Vr?  
      2SG what=toward go=IPFV
   b. na kung=i au-Vr?  
      2SG where=toward go-IPFV
   c. na kulen=i au-Vr?  
      2SG which.direction=toward go-IPFV

(20) Where are you coming from?  [Ao_MI_20Nov08_1_DB.WAV; 53:11, 53:08, 53:14]

   a. na kVtSi=nungi ar-Vr?  
      2SG what=from come-IPFV
   b. na kung=nungi ar-Vr?  
      2SG where=from come-IPFV
   c. na kulen=nungi ar-Vr?  
      2SG which.direction=from come-IPFV

D. ‘How’

- To greet an individual with “How are you doing?” in Ao, one can use either kuta or kuma:

(21) kuma/kuta lir?  
    how COP
    How are you?  [Ao_MI_16Oct08_2_MP.WAV; 18:26]

However, according to MI, if an individual is known to be sick, only kuma can be used when asking another person about that individual:

(22) pa kuma lir?  
    3SG.M how COP
    How is he?  [Ao_MI_11Dec08_1_DB.WAV; 31:39]
The word *kuta* ‘how’ can also convey the sense of ‘in what way’:

(23)  

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<tr>
<td><em>kuta</em></td>
<td><em>asI?</em></td>
<td></td>
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<tr>
<td><em>how</em></td>
<td><em>done</em></td>
<td></td>
</tr>
<tr>
<td>How (in what way) did it happen?</td>
<td>[Ao_MI_25Nov08_1_DB.WAV; 11:23]</td>
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</table>

• To ask ‘how many,’ the word *kui* follows the noun:

(24)  

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<tr>
<td><em>⟨naspati⟩</em></td>
<td><em>kui</em></td>
<td><em>lir?</em></td>
</tr>
<tr>
<td>Asian.pear</td>
<td><em>how. many</em></td>
<td>COP</td>
</tr>
<tr>
<td>How many Asian pears are there?</td>
<td>[Ao_MI_19Sep08_8_RE.WAV; 16:12]</td>
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(25)  

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<tr>
<td><em>na</em></td>
<td><em>kVm kui</em></td>
<td><em>lir?</em></td>
</tr>
<tr>
<td>2SG year</td>
<td><em>how. many</em></td>
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<tr>
<td>How old are you? (How many are your years?)</td>
<td>[Ao_MI_19Sep08_8_RE.WAV; 15:24]</td>
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(26)  

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<tr>
<td><em>na</em></td>
<td><em>khakVt kui</em></td>
<td><em>lir?</em></td>
</tr>
<tr>
<td>2SG book</td>
<td><em>how. many</em></td>
<td>COP</td>
</tr>
<tr>
<td>How many books do you own?</td>
<td>[Ao_MI_25Nov08_1_DB.WAV; 4:43]</td>
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</table>

Note that even though the nouns in the above examples are not marked for plurality with *=tem, kui* ‘how many’ apparently conveys a plural meaning. I have not yet tried *kui* with an uncountable noun, but I imagine it would be preferable to use *kutakha* ‘how much’ (see example (29) below).

• To ask ‘how often,’ *kui* is used with the noun *pen* ‘time, instance’ to mean ‘how many times.’ In this construction, however, *kui* precedes the noun and is produced with mid tone:

(27)  

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<tbody>
<tr>
<td><em>kui</em></td>
<td><em>pen</em></td>
<td><em>tsl awa-r?</em></td>
</tr>
<tr>
<td><em>how. many</em></td>
<td>time water swim-IPFV</td>
<td></td>
</tr>
<tr>
<td>How often do you swim?</td>
<td>[Ao_MI_25Nov08_1_DB.WAV; 4:03]</td>
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• Another wh-word with a ‘how’-type meaning is *kutakha* ‘how much/to what extent.’ When *kutakha* follows a noun and precedes an adjective, the construction means “How ADJ is NOUN?” as shown in (28):

(28)  

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<tbody>
<tr>
<td><em>Siti</em></td>
<td><em>kutakha</em></td>
<td><em>thulu?</em></td>
</tr>
<tr>
<td>elephant</td>
<td><em>how. much</em></td>
<td>big</td>
</tr>
<tr>
<td>How big is the elephant?</td>
<td>[Ao_MI_25Nov08_1_DB.WAV; 5:36]</td>
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</table>

When no adjective follows *kutakha*, the construction means “How much NOUN?” as in (29):

(29)  

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<tbody>
<tr>
<td><em>tsl</em></td>
<td><em>kutakha?</em></td>
<td></td>
</tr>
<tr>
<td>water</td>
<td><em>how. much</em></td>
<td></td>
</tr>
<tr>
<td>How much water (is there)?</td>
<td>[Ao_MI_25Nov08_1_DB.WAV; 6:22]</td>
<td></td>
</tr>
</tbody>
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¹ MI briefly translated this word as “times,” but since it has no plural morphology I am assuming it is actually singular, pending further data.
Finally, the two-word construction \textit{ku'pi' kha'} means ‘how long’ (i.e., ‘for what duration of time’). The meaning of \textit{ku'pi'} by itself is unknown, but \textit{kha'} appears to be homophonous with \textit{kha'} meaning ‘one.’ The use of this construction is demonstrated in (30):

\[(30)\] na jasIn g \textit{kupi kha} metSang?
\hspace{1cm} 2SG last.night how.long slept
\hspace{1cm} How long did you sleep last night? \hspace{1cm} [Ao_MI_25Nov08_1_DB.WAV; 7:17]

III. Embedded Wh-words

For the sake of space (certainly not for lack of data!), the use of Ao wh-words in embedded clauses is given only a cursory overview here.

A. Local Scope

Embedded wh-words take local scope within their clauses when the matrix verb is ‘ask,’ as in “Toshiba asked me who I met yesterday.” Note that this sentence can be expressed in Ao in two slightly-different ways:

\[(31)\] tuSi-pa=i kV=tang \textit{na=i jaSi7 Sipa7 atSuru ta asIngtang.}
\hspace{1cm} Toshi-NMLZ.M=I 1SG.GEN=to 2SG=I yesterday who met QUOT asked
\hspace{1cm} Toshiba asked me, “Who did you meet yesterday?” \hspace{1cm} [Ao_MI_04Dec08_1_DB.WAV; 25:57]

\[(32)\] tuSi-pa=i kV=tang \textit{n$i^{3} jaSi7 Sipa7 atSuru ta asIngtang.}
\hspace{1cm} Toshi-NMLZ.M=I 1SG.GEN=to 1SG:1 yesterday who met QUOT asked
\hspace{1cm} Toshiba asked me who I met yesterday. \hspace{1cm} [Ao_MI_04Dec08_1_DB.WAV; 26:35]

In (31), Toshiba’s question is quoted as he actually asked it, while in (32) the deictic pronoun is updated to match the current speaker, though both sentences contain the (hypothesized) quotative particle \textit{ta}.

When asked to produce a sentence with an embedded wh-word and ‘tell’ as the matrix verb (e.g., “Moa told me who he met yesterday”), MI responded that Ao speakers are usually not quite so vague, preferring rather to say, “Moa told me that he met \textit{[NAME]} yesterday.” When the matrix verb ‘tell’ is negated, however, it is possible to embed a wh-word that takes local scope, as in (33) & (34):

\[(33)\] mua-pa=i kV=tang \textit{kVtSi=aki pa=tak angu-ar m-aSi.}
\hspace{1cm} Moa-NMLZ.M=I 1SG.GEN=to what=by 3SG.M=at bit-AR NEG-told
\hspace{1cm} Moa didn’t tell me what bit him. \hspace{1cm} [Ao_MI_05Dec08_7_DB.WAV; 3:52]

\[(34)\] mua-pa=i kV=tang \textit{pa kutang kitang=i au-tSI-ar m-aSi.}
\hspace{1cm} Moa-NMLZ.M=I 1SG.GEN=to 3SG.M when home=toward go-FUT-AR NEG-told
\hspace{1cm} Moa didn’t tell me when he will go home. \hspace{1cm} [Ao_MI_05Dec08_7_DB.WAV; 16:13]

The function of the \textit{–ar} suffix in the above sentences is not yet understood, though it seems to appear on the embedded verb whenever the matrix clause contains \textit{maSi} ‘didn’t tell’ or the imperative \textit{Siang} ‘tell!’
B. **Matrix Scope**

- Embedded wh-words may obtain matrix scope when the matrix verb is *aSi* ‘told,’ as illustrated in (35):

\[(35)\]

\[a. \text{mua-pa}=i \text{ kutang} \langle \text{tukan}\rangle=i \text{ au-tsi} \text{ ta} \text{ aSi?} \]

Moa-NMLZ.M=1 when store=toward go-FUT QUOT said

When did Moa say he will go to the store? \[\text{[Ao_MI_05Dec08_7_DB.WAV; 20:46]}\]

\[b. \text{mua-pa}=i \text{ pa asIng} \langle \text{tukan}\rangle=i \text{ au-tsi} \text{ ta} \text{ aSi.} \]

Moa-NMLZ.M=1 3SG.M tomorrow store=toward go-FUT QUOT said

Moa said that he will go to the store tomorrow. \[\text{[Ao_MI_05Dec08_7_DB.WAV; 20:03]}\]

Note that the declarative statement in (35b) could also be expressed with the matrix verb *Si-uku* (say-PERF) ‘has said,’ but the matrix verb of the question in (35a) must be *aSi* ‘said’ (not *Siuku*). (The exclusion of the perfective aspect from questions seems to be a general rule in Ao.)

A final example of an embedded wh-word obtaining matrix scope is presented in (36):

\[(36)\]

\[a. \langle \text{Daniel}\rangle=i \text{ kVtSi tsIk} \text{ ta} \text{ aSi?} \]

Daniel=1 what fell QUOT said

What did Daniel say fell? \[\text{[Ao_MI_11Dec08_1_DB.WAV; 23:23]}\]

\[b. \langle \text{Daniel}\rangle=i \text{ khakVt kha tsIk} \text{ ta} \text{ aSi.} \]

Daniel=1 book one fell QUOT said

Daniel said that a book fell. \[\text{[Ao_MI_11Dec08_1_DB.WAV; 23:05]}\]

IV. **Summary**

Ao employs an impressive inventory of in-situ wh-words to form constituent questions. Embedded wh-words take local scope when the matrix verb is *maSi* ‘didn’t tell’ or *asIngtang* ‘asked,’ and matrix scope when the matrix verb is *aSi* ‘told.’ In addition to the unanswered issues mentioned in the body of this paper, other areas ripe for investigation are the behavior of wh-words in deeply-embedded clauses and in islands.

‡‡ This pattern presumably holds for these verbs in other tenses & aspects as well, but one should always verify.