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Interrogative Constructions in Some Formosan Languages

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Abstract

This paper attempts to investigate interrogative constructions in some Formosan languages, including yes-no questions, alternative questions and information questions. In the named languages, two strategies are used in forming the yes-no questions: (i) phonological strategy and (ii) lexical/morphological strategy. The alternative questions are investigated here with respect to: (i) presence of a word glossed as 'or', (ii) their intonation patterns, and (iii) 'deletion' of the identical elements. In the information questions, the wh-words can structurally either be nouns or verbs, depending on their being preceded by case markers and the like, or affixed with focus and/or tense/aspect markers. Functionally, these interrogative words can be categorized into three types: (i) nominal interrogatives, i.e. wh-words manifesting participants/referents in argument position and functioning as pronouns/nouns, (ii) adverbial interrogatives, i.e. wh-words designating referents in non-argument position and functioning as adverbs, and (iii) verbal interrogatives, i.e. wh-words functioning as verbs which manifest events.

1. Introduction[1]

Questioning represents one of the unique characteristics of the human mind. As a result, ways of forming questions in different languages deserve necessary attention. In most languages, there are two kinds of interrogative constructions, namely, "general" questions and "special" questions (Comrie 1984:18). "General" questions include yes-no questions and alternative questions (cf. Comrie 1984:18-24), and "special" questions (Comrie 1984:25-27) (or what are normally called "information" questions or "content" questions [cf. Harris 1984:70-73]) are questions formed with question words (equivalent to wh-words in English). The present paper attempts to investigate interrogative constructions in seven Formosan languages,[2] including Atayal [the Mayrinax dialect], Saisiyat [the Tungho dialect], Tsou [the Tfuya dialect], Rukai [the Labuan, Maga and Mantauran dialects], Paiwan [the Northern dialect], Puyuma [the Nanwang dialect] and Amis [the Central dialect], all of which, except Saisiyat (cf. Yeh 1991:34), are verb-initial languages. Below, let us first examine the yes-no questions of the named languages.

2. Yes-No Questions

In the Formosan languages investigated, two main strategies are used to form yes-no questions: the first is phonological; the second lexical/morphological. The phonological strategy is characterized by a change of intonation, pitch accent and/or vowel length; the lexical/morphological strategy is indicated by either the presence of a question word or a bound morpheme. Some languages utilize only one of these two devices; others may use both but semantic variations are observed.

2.1 Phonological Strategy

Yes-no questions in some of the languages studied here only utilize phonological devices. For instance, Paiwan and Tsou use different intonation. In both languages, words generally have stress falling on the penultimate syllable and declarative sentences have the leveling-rising-falling intonation pattern. However, while syntactically resembling their corresponding declarative sentences, the yes-no questions in both languages utilize leveling-rising intonation. Note that the yes-no questions in Paiwan have the pitch accent falling on the last syllable of the last word (e.g. [1b]), whereas in Tsou, the stress remains on the penultimate syllable (e.g. [2b]):[3]

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(1) Paiwan              ____ ↗ ↘
    a. ti      palaŋ    timádju
    [Nom   Palaŋ     3S.Nom]
    'He is Palaŋ'
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2. The data on Atayal and Puyuma are from Huang's fieldnotes. The others are provided by Zeitoun (Tsou and Rukai), Yeh (Saisiyat), Chang (Paiwan) and Wu (Amis). Concerning the dialects of each language and the one(s) studied in this paper and their geographical distributions, see Huang et al. 1998.

3. The abbreviations and symbols used in this paper are as follows: 1S 1st Person Singular; 1PE 1st Person Plural Exclusive; 1PI 1st Person Plural Inclusive; Acc Accusative; Act Active voice; AF Agent focus; Asp Aspect; Ben Benefactive; BF Benefactive focus; Caus Causative; Fut Future tense; Gen Genitive; Hab Habitual; Imp Imperative; LF Locative focus; Lin Linker; Loc Locative; NAF Non-agent focus; Neg Negator; Neu Neutral; Nom Nominative; Nrf Non-referential; Nsp Nonspecific; Obl Oblique; Part Particle; PF Patient focus; Pl Plural; Poss Possessive; Prep Preposition; Prf Perfective aspect; Real Realis; Red Reduplication; Rf Referential; Sg Singular; Sp Specific; Stat Stative; = indicates the following pronoun is a clitic; < > indicates the enclosed elements are infixes and their glosses.

b. ti   palaŋ   timadjú _____↗
   [Nom Palaŋ 3S.Nom]
   'Is he Palaŋ?'

(2) Tsou   _____↗↘

   a. mi-ko-cu   ŋoseo
   [AF-2S.Nom-already   tired]
   'You are tired'

   _____↗

   b. mi-ko-cu   ŋoseo
   [AF-2S.Nom-already   tired]
   'Are you tired?'

In Labuan Rukai, while both the declarative sentences and yes-no questions have the stressed penultimate syllable, the declarative sentences have the leveling-rising intonation pattern (e.g. [3a]) and the corresponding yes-no questions are formed with leveling-falling intonation pattern (e.g. [3b]):

(3) Rukai (Labuan)

   _____↗

   a. masipəpələŋə-aku
   [tired-already-1S.Nom]
   'I am tired'

   _____↘

   b. masipəpələŋə-su
   [tired-already-2S.Nom]
   'Are you tired?'

Yet in Maga Rukai, while declarative sentences have the leveling-rising-falling intonation and the pitch accent falls on the penultimate syllable, the corresponding yes-no questions are characterized by leveling intonation and the lengthening of the last syllable of the last words (the symbol [:] indicates the lengthening of the vowel):

(4) Rukai (Maga)
   a. u-tubi   musu:
   [Act/Real-cry 2S.Nom]
   'Have you cried?; Did you cry?'

   b. u-cŋili   musu   kdoma   kanav-a:
   [Act/Real-see 2S.Nom sometimes Kanao-Obl]
   'Do you sometimes see Kanao?'

Languages like Puyuma and Amis utilize the phonological strategy, in addition to the lexical strategy, to form yes-no questions. We will examine the use of the phonological devices in these languages here and discuss the use of lexical devices in Section 2.2. First, note while the declarative sentences in Puyuma and Amis are formed with the pitch accent falling on the last syllable of the last word, their corresponding yes-no questions are manifested by the pitch accent appearing on the penultimate syllable of the last word, as illustrated by the sentences below:

(5) Puyuma   _____↗↘
   a. nu-pakan-ay   la   na   wálak
   [2S.Gen-feed-PF Part Nom child]
   'Did you feed the child?'

   _____↘

   b. ayiwa. ku-pakan-ay   la   na   walák
   [yes   1S.Gen-feed-PF Part Nom child]
   'Yes, I fed the child'

(6) Amis   _____↗↘
   a. paka-araw   kisu   ci   aki-an
   [PAKA-see 2S.Nom Acc₁ Aki-Acc₂]
   'Do you often see Aki?'

   _____↘

   b. paka-araw   kaku   ci   aki-án
   [PAKA-see 1S.Nom Acc₁ Aki-Acc₂]
   'I often see Aki'

2.2 Lexical/Morphological Strategy

As will be shown below, in forming yes-no questions, some Formosan languages use the lexical/morphological strategy: Mayrinax Atayal uses only a question particle and Mantauran Rukai a bound morpheme. Other languages like Puyuma and Amis use both phonological (discussed in Section 2.1) and lexical strategies. The following are some question particles used in the languages investigated: quw in Mayrinax Atayal, ay in Saisiyat, sau in Amis, and amaw in Puyuma. These question particles usually occur clause-finally,[4] and may be accompanied by a specific intonation pattern. Below, we will discuss how these languages form their yes-no questions with particles in terms of the distribution of these question particles, while examining their intonation patterns.

First, let us examine yes-no questions in Mayrinax Atayal. As stated earlier, the only way that Mayrinax Atayal forms yes-no questions is through the presence of the particle quw which appears in sentence final position. As for the intonation pattern, the yes-no questions in Mayrinax Atayal maintains the leveling-falling intonation pattern as their corresponding declarative sentences:

(7) Atayal
a. al-un   ni? yumin ku?   rahuwal quw
[take-PF Gen Yumin Nom.Rf big   Q]
'Did Yumin take the big one?'

b. m-a?usa?=si?   m-aniq   quw
[AF-go=2S.Nom   AF-eat   Q]
'Are you going to eat?'

Question words in Puyuma and Amis also appear sentence finally. In these languages, however, the yes-no questions are accompanied by an intonation pattern which is different from that of their corresponding declarative sentences. Puyuma forms the yes-no questions with the leveling-rising intonation pattern and the pitch accent falling on the last syllable of the word which is the question particle amaw; the corresponding declarative sentences have the leveling-falling pattern. Consider:

(8) Puyuma
a. udjya   na   suan kanu   amáw
[exist   Nom dog 2S.Obl Q]
'Is the dog at your place?'

b. a-uka-yu   kadjyu amáw
[Fut-go-2S.Nom there   Q]
'Will you go there?'

Amis, on the other hand, has its yes-no questions appearing in a leveling-rising-falling intonation pattern with the pitch accent on the penultimate syllable of the question particle sau, i.e. the a vowel:

(9) Amis
a. ci   panay kisu   sáu
[Neu Panay 2S.Nom Q]
'Are you Panay?'

b. mi-maan   kisu   sáu
[AF-what 2S.Nom Q]
'What are you going to do?'

Recall the discussion of the yes-no questions in Amis formed without a question particle given in Section 2.1. In contrast with such yes-no questions, yes-no questions with the particle sau present a sense of 'greater suspicion' and often imply a tone of 'impoliteness'.

Unlike the languages discussed above, Saisiyat has the question particle appearing in either sentence final (e.g. [10a-b]) or non-final

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4. However, in languages like Saisiyat (discussed below) and the Atayal variant spoken in Nantou (see Chiang 1996), question particles may appear clause medially or finally.

position (e.g. [10c-e]):

(10) Saisiyat

    a. koko?   ray   taw?an <u>ay</u> ↗
       [grandmother Loc house Q]
       'Is Grandmother home?'

    b. ʃo?o   ?am-kay ?oʃa? <u>ay</u> ↗
       [2S.Nom Irr-Neg   go   Q]
       'Won't you go?'

    c. ʃo?o   mahoroɬ yakin <u>ay</u> ↗↘ nahan
       [2S.Nom remember 1S.Acc Q   still]
       'Do you still remember me?'

    d. ʃo?o   rəŋrəŋ <u>ay</u> ↗↘ komita? hi ?oβay
       [2S.Nom often   Q   see.AF   Acc ?oβay]
       'Do you often see ?oβay?'

    e. ʃo?o   kahiɬa? komita? <u>ay</u> ↗↘ hisia
       [2S.Nom yesterday see.AF   Q 3S.Acc]
       'Did you see him yesterday?'

Among the Formosan languages, Mantauran and Tona Rukai are the only two in which yes-no questions are formed with bound morphemes attached to the verb. Consider the following sentences with the bound morpheme <u>ka</u>⁵ in Mantauran Rukai:

(11) Rukai (Mantauran)
    a. maavaivai-<u>ka</u>-i

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5. The morpheme <u>ka</u> in Mantauran Rukai can also be found in negative sentences, as exemplified below:
  (1) ka   ?oponoho-ka-?o
    [?oponoho-Neg-2S.Gen]
    'You are not ?oponoho'
  Whether the two ka's are of the same morpheme will not be further discussed here. For a detailed discussion, see Zeitoun 1995.

    [Red-come-Q-3S.Gen]
    'Does he often come?'
    b. apəcə-ŋa-<u>ka</u>-?o
    [sleep-already-Q-2S.Gen]
    'Have you slept?; Did you sleep?'

The following table sums up the above discussion on the formations of yes-no questions in the named Formosan languages:

Table 1 : Formations of yes-no questions in some Formosan languages

Languages		phonological devices			lexical or morphological devices					
		intonation	shift of pitch accent	vowel lengthening	particle or bound morpheme	distribution			accompanying intonation	shift of pitch accent
						final	non-final	post-verbal		
Paiwan		L-R	last syllable	-	---	.	.	.	---	---
Tsou		L-R	---	.	---	.	.	.	---	---
Rukai	Ma	L	---	+	---	.	.	-	---	---
	Lb	L-F	---	.	---	.	.	-	---	---
	Mt	L-F	---	.	-ka	.	-	+	---	---
Puyuma	Na	---	penultimate	-	amaw	+	-	-	L-R	last syllable
Atayal	Mx	---	---	.	quw	+	.	.	L-F	--- .
Saisiyat		---	---	.	ay	+	+	+	L-R; L-R-F-L	---
Amis		L-R-F	penultimate	-	sau	+	-	-	L-R-F	penultimate

Note: L: leveling; L-R: leveling-rising; L-R-F: leveling-rising-falling; L-F: leveling-falling
+: presence; -: absence; ---: not applicable

3. Alternative Questions

The second type of general questions are alternative questions. As will be shown below, variations are found across languages: in some languages, alternative questions are formed with an overt word which translates as 'or'; they may be either nominal/equational or verbal/non-equational; their intonation patterns may resemble or differ from their corresponding declarative counterparts; they may or may not have identical elements 'deleted'; such 'deletion' may be either forward or backward.

Below let us first consider the formation of alternative questions in Mayrinax Atayal. In this language, alternative questions are formed with the question particle <u>quw</u> and the Topic marker <u>ya?</u>. The accompanying intonation pattern can be divided into two units: the first

unit is leveling-rising with the pitch accent falling on the vowel of the Topic marker yá?, and the second unit returns to the leveling-falling pattern which resembles the intonation pattern of the declarative sentences. Some examples follow:

(12) Atayal

   a. s\<um>iuwaal=si?   cu? qa-qaniq cu?   qulih
     [like\<AF>like=2S.Nom Lin Red-eat Acc.Nrf fish

     quw yá? s\<um>iuwaal=si?   cu? qa-qaniq
     Q   Top [like\<AF>like=2S.Nom Lin Red-eat

     cu?   siyam
     Acc.Nrf meat]
     'Do you like to eat fish or (do you like to eat) meat?'

   b. s\<um>iuwaal=si?   cu?   pila? quw yá?
     [like\<AF>like=2S.Nom Acc.Nrf money Q   Top

     s\<um>iuwaal=si?   cu?   kinkyanux
     like\<AF>like=2S.Nom [Acc.Nrf life   ]
     'Do you want money or (do you want) life?'

Note that in Mayrinax Atayal (as in other Formosan languages), alternative questions may not be necessarily composed of complete clauses; omission of identical parts is permissible. Compare (12) and (13):

(13) Atayal

   a. s\<um>iuwaal=si?   cu? qa-qaniq cu?   qulih
     [like\<AF>like=2S.Nom Lin Red-eat   Acc.Nrf fish

     quw yá?   siyam
     Q   Top   meat]
     'Do you like to eat fish or meat?'

   b. s\<um>iuwaal=si?   cu?   pila? quw yá?
     [like\<AF>like=2S.Nom Acc.Nrf money Q   Top

     kinkyanux
     life   ]
     'Do you want money or life?'

More examples without repeating identical elements are given below:

(14) Atayal

   a. ?i?   tali? ku?   m-a?usa? i?   taypak quw yá?
     [Neu Tali? Nom.Rf AF-go   Prep Taipei Q   Top

     (?i?) yumin
     Neu Yumin]
     'Will Tali? or Yumin go to Taipei?' Lit. 'Is the one that will go to Taipei Tali? or Yumin?'

   b. ?i?   tali? quw yá? yumin ku?   t\<um>utiŋ
     [Neu Tali? Q   Top Yumin Nom.Rf beat\<AF>beat

     ?i?   limuy
     Acc Limuy]
     'Did Tali? or Yumin beat Limuy?'   Lit. 'Was it Tali? or Yumin that beat Limuy?'

   c. ?i?   tali? ku?   tutiŋ-un=su?   quw yá?
     [Neu Tali? Nom beat-PF=2S.Gen Q   Top

     (?i?) yumin
     Neu Yumin]
     'Did you beat Tali? or Yumin?' Lit. 'Was the one you beat Tali? or Yumin?'

   d. paka-kia?=si?   imuwaɣ quw yá? i?   claq
     [like-exist=2S.Nom house   Q   Top Prep field]
     'Will you be home or in the field?'

Notice that while sentences (12a-b) have the two alternative elements expressed by full clauses and are verbal sentences, the structures of (13-14) are not exactly identical:

(i) Alternative questions without repeating identical portions can be either verbal sentences (e.g. [13a-b] and [14d]), or nominal/ equational sentences (e.g. [14a-c]).

(ii) If the noun manifesting the second alternative is a personal proper noun, it may, but not necessarily, be preceded by a case marker, as shown in (14a-c); if the noun in question is a common noun intrinsically expressing a location, it is then marked with the preposition i?, as in (14d); if the noun in question is a common noun which does not designate a location, it cannot be preceded by any marker, as given in (13a-b).

(iii) While the second alternative may appear sentence finally, following a full clause manifesting the first alternative (e.g. [13a-b], [14a] and [14c-d]), the two alternative elements can be juxtaposed and appear sentence initially (e.g. [14b]). In other words, the 'deletion' of identical elements can be either forward or backward.

Next, consider alternative questions in Amis. The intonation pattern of Amis alternative questions resembles that of the yes-no questions; i.e. a leveling-rising-falling intonation pattern with the pitch accent on the last two content words, regardless they are of the same part of speech. Such a phenomenon seems rather unique to Amis:

(15) Amis
   a. cima ku ta-tayra na· i taypak
      [who Nom Red-go 2· ən Prep Taipei
      ci łúŋi ci áki
      Nom łuŋi Nom Aki]
      'Is łuŋi or Aki going to Taipei?'
      Lit. 'Which one of you are going to Taipei? łuŋi? or Aki?'

   b. u fəlac ku ka-ulah-an ísu u páysu
      [Neu rice Nom KA-like-AN 2S.Gen Neu money]
      'Do you want rice or money?'

   c. anułafak i luma? kísu i pitilíłan
      [tomorrow Prep house 2S.Nom Prep school]
      'Will you be at home or in school tomorrow?'

   c'.*anułafak i lúma? kisu i pitilíłan
      [tomorrow Prep house 2S.Nom Prep school]

   d. ma-tayal kísu ma-fúti?
      [AF-work 2S.Nom AF-sleep]
      'Are you going to work or sleep?'

   d'.*ma-táyal kisu ma-fúti?
      [AF-work 2S.Nom AF-sleep]

Besides the intonation pattern, note that like Mayrinax Atayal, Amis has its alternative questions either nominal or verbal constructions. For instance, (15a-c) are nominal sentences and (15d) is a verbal one.

Next, examine the following alternative questions in Labuan Rukai:

(16) Rukai (Labuan)
   a. ay-uŋulu-su ku acilay ay-kanə-su ku aga
      [Irr-drink-2S.Nom Obl water Irr-eat-2S.Nom Obl rice]
      'Will you drink water or eat rice?'

   b. ay-cəələ-su ki sunatə ay-apəcə-su
      [Irr-see-2S.Nom Obl book Irr-sleep-2S.Nom]
      'Will you read a book or sleep?'

Note that the alternative questions in Labuan Rukai as given above are composed of two complete clauses. Also note that the intonation

pattern of such questions can be divided into two units and that each is characterized as leveling-rising.

Notice that in either Mayrinax Atayal, Amis or Labuan Rukai, alternative questions do not contain a word meaning 'or'. On the other hand, in Paiwan the word manu 'or' is present and connects the two alternatives. The two elements under question carry leveling-rising intonation, as illustrated below:

(17) Paiwan
a. uri sema taihuku-sun manu uri sema
[will go Taipei-2S.Gen or will go

takaw-sun
Kaohsiung-2S.Gen]
'Will you go to Taipei or will you go to Kaohsiung?'

Note that here the two alternatives are complete clauses. However, when neither of the two alternatives appears sentence finally, the last element of the sentence also carries leveling-rising intonation (i.e. the sentence then has three leveling-rising intonation units), as indicated in the following example:

(17) Paiwan
b. manu ciʔaw manu vutul a uri kan-in nimadju
[or fish or meat Nom will eat-PF 3S.Gen]
'Will he eat fish or meat?'

Saisiyat is another language whose alternative questions also have a word glossed as 'or'. Consider:

(18) Saisiyat

a. niʃo ʔam ŋyaw a ʔam ʔahœ?
[2S.Gen want cat or want dog]
'Do you want a cat or do you want a dog?'

b. ʃoʔo ʔam s<om>iʔæl ila ay ka pazay a ʔam
[2S.Nom want eat<AF>eat Asp Q Acc rice or want
r<om>aʔœ: ka inoβæ:æh
drink<AF>drink Acc wine]
'Do you want to eat rice or drink wine?'

Similarly, Tsou is another language in which the alternative questions can be made up of two complete clauses. However, the absence of identical parts including the second bound pronoun is possible. Also, the structure under study has a morpheme hoꞌ attached to the irrealis auxiliary verb -nte introducing the second alternative. Consider:

(19) Tsou

a. ɗa-ko kaebi boni to yoski ho-nte(-ko)
[Hab-2S.Nom like.AF eat.AF Obl fish if-AF/Irr(-2S.Nom)

no oʔ-te (boni ta) fou
Obl Neg-AF/Irr eat.AF Obl meat]
'Do you want to eat fish or (do you want to eat) meat?'

b. zou yaŋui ho-nte oʔ-te moʔo na mo
[be Yaŋui if-AF/Irr Neg-AF/Irr Moʔo Nom AF/Real
eobako ta pasuya
beat.AF Obl Pasuya]
'Is it Yaŋui or Moʔo that beat Pasuya?'

In the above examples, we may note that the alternative questions in Tsou may have two intonation patterns and each is composed of two units; each unit can be either leveling-rising or leveling-falling. Moreover, comparing (19a) with (19b), we note that alternative

6. The morpheme ho is sometimes translated as 'if', 'when' or 'or'; its actual meaning deserves further analysis.

questions in the language can be either verbal (e.g. [19a]) or nominal (e.g. [19b]), and the 'deletion' can be either forward (e.g. [19a]) or backward (e.g. [19b]), as in Mayrinax Atayal. The following table sums up the above discussion:

Table 2 : Alternative questions in some Formosan languages

Languges	word glossed as 'or'	sentence type		deletion of identical elements		intonation pattern	shift of pitch accent
		nominal	verbal	backward	forward		
Atayal Mx	·	+	+	+	+	L-R-L-F	--
Amis	-	+	+	---	+	L-R-F-L-R-F	+
Rukai Lb	·	-	+	·	·	L-R-L-R	---
Paiwan	manu	+	+	---	+	L-R-L-R	---
Saisiyat	ʔ	---	+	--	?	L;L-R-F-L;L-R-F-L-R-F-L	---
Tsou	ho-nte	+	+	+	+	L-R-L-R or L-F-L-F	--

4. Special Questions

Like other non-Austronesian languages, special questions (or so-called wh-, content or information questions) in Formosan languages utilize certain question words, as shown in the following table:

Table 3 : Question words in some Formosan languages

Languages	who	what	which	how;many/much	where	when	why	how
Atayal Mx	ima?	nanuwa nanu?	ainu?	piya? papiya?	inu?	ʔiʔ kanuwan (Fut) cuʔ kanuwan (Past) ʔiʔ humicuwa? (Fut) cuʔ humicuwa?(Past)	micuwa?	humicuwa? binicuwa? paphicuwa?
Tsou	sia	cuma	nenu	pio	nenu	ho-homna (Fut) ne-homna(Past)	mainci	mainenu
Rukai Lb	anoa	manoma	sainuinu	taapia [+human] pia [-human] pakapia	iou	na-iga (Fut) ku-iga (Past)	a-	
Puyuma Na	manay	manay	isuwa	miasana munuma	isuwa	asuwa	daw aw	kuta
Saisiyat	bil[æ]?	kano?	haʔino?	piza? koza?	ʔino? haʔino?	ʔinoʔan (Fut) ka-ʔinoʔan (Past)	ʔampola?	nak ʔino?
Paiwan	lima nima tjaima	noma	inu	pida mapida	inu	nu-ŋida (Fut) ka-ŋida (Past)	komudaku aku	komuda kinuda komudakuda
Amis	cima nima cimanan	maan		pina papina	cuwa	anu hakuwa (Fut) na ĵ hakuwa (Past)	anu naw	maanon masamaan pakamaan

As we will see in the following sections, the question words presented in the above table can be discussed in two ways, namely, their part of speech and their functions:

(i) Part of speech: These question words belong to two different groups with respect to the part of speech. That is, they can either be nouns or verbs. Those that can be preceded by or contain case markers or the like are nouns, and those that can be affixed with focus and/or tense/aspect markers are verbs.

(ii) Function: These question words form three groups functionally; that is, they may serve as nominals, verbals or adverbials. To be exact, question words that manifest participants serve as nominals, those that represent events function as verbals, and those that express temporal, place, reason or other adjunct relations are adverbials. Consequently, these question words may also function in different ways syntactically.

Below we will begin to examine the above-mentioned question words.

4.1 Nominal Interrogatives

As we will see in the following Formosan languages, question words which serve to manifest participants, either persons (i.e. 'who' and the like), objects (i.e. 'what' and the like), choices (i.e. 'which' and the like) or quantity (i.e. 'how many' and the like), function like ordinary nouns. Normally such question words in the investigated Formosan languages (except in Saisiyat[7]) may appear sentence initially and serve as predicates. However, they may often appear in sentence medial position and be preceded by nominal case markers,[8] which helps justify that they are nouns.

Below let us examine some sentences from Mayrinax Atayal, Tsou, Labuan Rukai, Nanwang Puyuma and Saisiyat with question words manifesting participants and serving as predicates:

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7. As stated earlier, Saisiyat is the only Formosan language investigated that is not a verb initial language. According to Yeh (1991), verbs usually follow the subject in Saisiyat sentences.

8. As for the case markers in the named Formosan languages, please refer to Huang et al. 1998.

(20) Atayal

    a. ima? ku?   cuquliq ka? haca
       [who Nom.Rf person Lin that]
       'Who is that person?'

    b. ima? ruwas ku?   hani
       [who book   Nom.Rf this]
       'Whose book is this?'

(21) Tsou

    a. sia   na   mo   smoyo-su
       [who Nom AF/Real afraid-2S]
       'Who is afraid of you?'

    b. sia   na   i-ko   smoyo-a
       [who Nom   NAF-2S.Gen afraid-PF]
       'Whom are you afraid of?'

(22) Rukai (Labuan)

    a. anəa   ku   mw-a-kuɭuɖu · musua
       [who Nom   Stat-Real-fear 2S.Obl]
       'Who is afraid of you?'

(23) Puyuma

    a. *i*   manay na   aru a-əkan kana ɭaʈu
       [Neu who   Nom will Red-eat that   mango]
       'Who will eat that mango?'

    b. *kan*   manay tiliɭ   idjini
       [Obl who   book this]
       'Whose book is this?'

(24) Saisiyat

    a. hiza?   hiɭæ?'
       [that   who]
       'Who is that?'

    b. ?oβay (hi)   hiɭæ?
       [?oβay Nom who]
       'Who is ?oβay?'

Note that the above sentences with question words appearing in sentence initial (or non-initial as in Saisiyat) position serving as

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9. As pointed out earlier, verbs usually follow the subject in Saisiyat sentences. Hence the question word hiɭæ? 'who' here serves as predicate of the sentence.

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predicates are all equational/nominal constructions. Also note that in Puyuma sentences (23a-b), the question word <u>manay</u> 'who' in sentence initial position is preceded by case markers, which is not found in the other languages/dialects under investigation.

The above-mentioned question words may also appear in verbal constructions in which the named question words occur in sentence non-initial position:

(20) Atayal

    c. pa-kaβaux=su?   *ki?* ima? cu?   pila?
       [Fut.AF-borrow=2S.Nom Loc who Acc.Nrf money]
       'From whom will you borrow money?'

    d. b<in>asun   *ki?* ima? ni? yumin ku?   ruwas
       [sell<Prf.PF>sell Loc who Gen yumin Nom.Rf book]
       'Whom did Yumin sell the book to?'

(21) Tsou

    c. zou tposi *no* sia eni
       [be book Obl who this]
       'Whose book is this?'

    d. zou oko *no* sia ?o   i-ko   imnia
       [be child Obl who Nom Real-2S like]
       'Whose child do you like?'

(22) Rukai (Labuan)

    b. ma-da-dalamə-su   *ki* anəa ki zipulu si
       [Stat-Red-like-2S.Nom Obl who Obl Zipulu and
       takanaw
       Takanaw]
       'Whom do you prefer, Zipulu or Takanaw?'

(23) Puyuma

    c. idjini na   ruma i   nu-na-niwanan *kan* manay
       [this Nom house Prep 2S.Gen-Red-sell Obl who]
       'Whom are you going to sell this house to?'

(24) Saisiyat

    c. ø   hiɭæ? ray halapaw
       [Nom who Loc bed]
       'Who is on the bed?'

d. sia ʃ<om>eβet *hi* hiḻæʔ
   [3S.Nom beat<AF>beat Acc who]
   'Who did he beat?"

e. rayhil *ni* hiḻæʔ karmaʔ-en
   [money Gen who take-PF]
   'By whom was the money stolen?'

f. βakiʔ βaḻiw ka kaʔiβaḻen ʔini hiḻæʔ
   [grandpa buy Acc clothes Ben who]
   'For whom did grandpa buy the clothes?'

g. halapaw ʔan-hiḻæʔ-*a*
   [bed Poss-who-Poss]
   'Whose bed is this?'

h. rayhil ʔinʔaray *kan* hiḻæʔ
   [money from Loc who]
   'From whom was the money (borrowed)?'

Note that in the above sentences, the question words are all preceded by case markers. Consequently, it is legitimate to treat them as nouns, and since they manifest participants, they are nominal interrogatives.

There are some other Formosan languages in which question words manifesting participants are already marked with case markers, as shown in the following Paiwan and Amis sentences (for details, see Huang et al. 1998):

(25) Paiwan
   a. tima su-k<in>isədam-an tua paysu
      [who.Nom 2S.Gen-borrow<Prf>borrow-LF Acc money]
      'Whom did you borrow money from?'

   b. nima alak a su-k<in>a-tjəŋəray-an
      [who.Gen child Nom 2S.Gen-<Prf>-like-LF]
      'Whose child do you like?'

   c. marəkut-su tjaima
      [afraid-2S.Nom who.Acc]
      'Whom are you afraid of?'

(26) Amis
   a. cima ku ma-ulah-ay ci panay-an
      [who.Nom Nom AF-like-AY Acc₁ Panay-Acc₂]
      'Who likes Panay?'

   b. nima wawa ku ka-ulah-an isu
      [who.Gen child Nom PF₁-like-PF₂ 2S.Gen]
      'Whose child do you like?'

   c. cimanan kisu pa-fliʔ tuni cuɬaɬ
      [who.Acc 2S.Nom Cau-give this book]
      'To whom will you give this book?'

The following table sums up the above discussion on the question words meaning 'who' in the named Formosan languages:

Table 4 : Question words meaning 'who' in some Formosan languages

Languages		question words meaning 'who'	syntactic distribution					
			sentence initial position			Sentence non-initial position		
			serving as predicate	case marking	sentence type	serving as predicate	case marking	sentence type
Atayal	Mx	ima?	+	-	nominal	-	+	verbal
Tsou		sia	+	-	nominal	-	+	verbal
Rukai	Lb	anaa	+	-	nominal	-	+	verbal
Puyuma	Na	manay	+	+	nominal	-	+	verbal
Saisiyat		hilæʔ	-	+	nominal (24c)	+	(+)	nominal (24a-b)
							+	verbal (24d-h)
Paiwan		tima nima	+	+	nominal	---		
		tjaima	---			-	+	verbal
Amis		cima nima	+	+	nominal	---		
		cimanan	-	+	verbal	---		

Next, let us examine the question words glossed as 'what', which manifest non-human participants. Like the question words glossed as 'who(whom/whose)', the question words meaning 'what' in the Formosan languages under investigation can also legitimately be classified as nouns, based on the criteria mentioned above. Consider:

(27) Atayal
   a. nanuwan kuʔ β<in>ainay niʔ yayaʔ ʔiʔ isuʔ
      [what Nom.Rf buy<Prf.PF>buy Gen mother Acc 2S.Neu]
      'What did your mother buy for you?'

b.si-βainay cuʔ <u>nanuwan</u> nkuʔ kanairil kuʔ ʔulaqiʔ
[BF-buy Acc what Gen.Rf woman Nom.Rf child]
'What did the woman buy for the child?'

c.si-βainay cuʔ <u>nanuʔ</u> nkuʔ kanairil kuʔ ʔulaqiʔ
[BF-buy Acc what Gen.Rf woman Nom.Rf child]
'What did the woman buy for the child?'

(28) Tsou

a.(zou) <u>cuma</u> na eni
[be what Nom this]
'What is this?'

b.mi-ko eon *no* <u>cuma</u> ho mi-ko uh ne
[AF-2S.Nom be Obl what AF-2S.Nom go Obl
taipahu
Taipei]
'How did you go to Taipei?'; Lit. 'What (transportation/
vehicle) were you on to go to Taipei?'

(29) Rukai (Labuan)

a.manəma ku kadalamə-su
[what Nom like-2S.Gen]
'What do you like?'

b.ma-dalamə-su *ku* manəma
[AF-like-2S.Nom Obl what]
'What do you like?'

(30) Puyuma

a.*a* <u>manay</u> iɖiyu
[Nom what that]
'What is that?'

b.m-əkan *ɖa* <u>manay</u> *i* sigimuʟi
[AF-eat Obl what Nom Sigimuʟi]
'What did Sigimuʟi eat?'

(31) Saisiyat

a.hiniʔ *(ka)* <u>kanoʔ</u>
[this Nom what]
'What is this?'

b.βakiʔ s<om>iʔæl *ka* <u>kanoʔ</u>
[grandpa eat<AF>eat Acc what]
'What did grandpa eat?'

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c.*ka* <u>kanoʔ</u> toŋsiʔ miŋ-lakay
[Nom what thing -break]
'What was broken?'

d.βakiʔ *nokaʔ* <u>kanoʔ</u> ʃ<om>eβet ka korkoriŋ
[grandpa Gen what beat<AF>beat Acc child]
'With what did Grandpa beat the child?'

(32) Paiwan

a.*a* <u>nəma</u> aycu
[Nom what this]
'What is this?'

b.pa-cu-cun-an-sun *t(u)a* <u>nəma</u>
[Cau-Red-see-LF-2S.Nom Acc what]
'What are you looking at?'

(33) Amis

a.*u* <u>maan</u> ku mi-nəŋnəŋ-an isu
[Neu what Nom PF₁-see-PF₂ 2S.Gen]
'What are you looking at?'

Table 5 sums up the above discussion on the interrogative words glossed as 'what':

Table 5 : Question words meaning 'what' in some Formosan languages

Languages		question words meaning 'what'	syntactic distribution					
			sentence	initial	position	sentence	non-initial	position
			serving as predicate	case marking	sentence type	serving as predicate	case marking	sentence type
Atayal	Mx	nanuwan	+	-	nominal	-	+	verbal
		nanuʔ		---		-	+	verbal
Tsou		cuma	+	-	nominal		+	verbal
Rukai	Lb	manəma	+	-	nominal	-	+	verbal
Puyuma	Na	manay	+	+	nominal	-	+	verbal
Saisiyat		kanoʔ	-	+	verbal	+	(+)	nominal
							+	verbal
Paiwan		nəma	+	+	nominal	-	+	verbal
Amis		maan	+	+	nominal		---	

The third nominal question word to be investigated is the one glossed as 'which'. This interrogative resembles the above two nominal interrogatives syntactically, as the following examples illustrate:

(34) Atayal

  a. ainuʔ   kuʔ   xuil=suʔ
     [which Nom.Rf dog=2S.Gen]
     'Which dog is yours?'

  b. pa-ʔaɣal   *ckuʔ*   ainuʔ ʔiʔ yumin
     [Fut.AF-take Acc.Rf which Nom Yumin]
     'Which one is Yumin going to take?'

  c. pa-ʔaɣal=siʔ   *ckuʔ* humicuwaʔ
     [Fut.AF-take=2S.Nom Acc.Rf which   ]
     'Which one do you want?'

  d. pa-ʔaɣal *ckuʔ* humicuwaʔ kaʔ situiŋ ʔiʔ limuy
     [Fut.AF-take Acc.Rf which   Lin clothes Nom Limuy]
     'What kind of clothes does Yumin want?'

(35) Tsou

  a. nenu   na i-ko   peini ci emoo
     [which/where Nom Real-2S.Gen buy Rel house]
     'Which house did you buy?'

  b. nenu   na te-ko   phiini ci tposi
     [which/where Nom Irr-2S.Gen buy Rel book]
     'Which book will you buy?'

(36) Rukai (Labuan)

  a. sainuinu ku   daanə-su
     [which   Nom house-2S.Gen]
     'Which one is your house?'

  b. madalamə-su *ki*   sainuinu
     [like-2S.Nom Obl which]
     'Which one do you like?'

(37) Saisiyat

  a. (*ka*) haʔinoʔ ʔanʃoaa
     [Nom which/where 2S.Poss]
     'Which is yours?'

  b. ʃoʔo   ʔam βaḷiw *ka* haʔinoʔ
     [2S.Nom will buy   Acc which/where]
     'Which one will you buy?'

  c. niʃo   haʔinoʔ   ka-βaḷiw-un
     [2S.Nom which/where NOM-buy-PF]
     'Which one will you buy?'

  d. niʃo   tawʔan haʔinoʔ
     [2S.Gen house which/where]
     'Which is your house?'

(38) Puyuma

  a. *na*   isuwa nanu
     [Nom which 2S.Gen]
     'Which is yours?'

  b. nu-a-aḷak-i   *na*   isuwa
     [2S.Gen-Red-want-PF Nom which]
     'Which one is the one that you want?'

  c. amawu *na*   isuwa nanu
     [be   Nom which 2S.Gen]
     'Which one is yours?'

  d. sagar-yu   *kana* isuwa
     [like-2S.Nom Obl which]
     'Which one do you like?'

(39) Paiwan

  a. *a*   inu   a   mana nisun
     [Nom which/where Nom is   2S.Gen]
     'Which is yours?'

  b. *a*   inu   a   mana su-k<in>atjəŋəḷay-an
     [Nom which/where Nom is   2S.Gen-like<Prf>like-LF]
     'Which do you like?'

(40) Amis

  a. *i*   cuwa-ay   ku   ka-ulah-an isu
     [Prep which/where Nom PF$_1$-like-PF$_2$ 2S.Gen]
     'Which one do you like better?'

  b. *i*   cuwa-ay   ku   ka-tayra-an isu
     [Prep which/where Nom KA-go-AN 2S.Gen]
     'Which place are you going to?'

In the above examples, it is interesting to note that in languages/dialects like Tsou, Labuan Rukai,[10] Saisiyat, Paiwan and Amis, the interrogative 'which' also means 'where'. The semantics of

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10. We are not sure if <u>sainuinu</u> 'which' in Labuan Rukai has any relation with the interrogative word <u>inu</u> 'where' though they seem to share the portion <u>inu</u>. Further study is needed.

the two interrogatives deserves further study.

The following table presents the question words glossed as 'which' in the above-mentioned Formosan languages/dialects:

Table 6 : Question words meaning 'which' in some Formosan languages

Languages		question words meaning 'which'	syntactic distribution					
			Sentence initial position			sentence non-initial position		
			serving as predicate	case marking	sentence type	serving as predicate	case marking	sentence type
Atayal	Mx	ainu?	+	-	nominal	-	+	verbal
		humicuwa?	...			-	+	verbal
Tsou		nenu	+	-	nominal	...		
Rukai	Lb	sainuinu	+	-	nominal	-	+	verbal
Puyuma	Na	isuwa	+	+	nominal	-	+	verbal
Saisiyat		ha?ino?	-	-	nominal	+	(+)	nominal
Paiwan		inu	+	+	nominal	...		
Amis		cuwa	+	+	nominal	...		

The last nominal question word discussed here is the one meaning 'how many'. Consider the following Paiwan examples first:

(41) Paiwan
   a. kəl-an   *tua*   pida   aya-sun
      [take-LF Acc how:many say-2S.Nom]
      'How many did you say you want to take?'

   b. pida-anan   a   inika su-s<in>i-pavai
      [how:many-still Nom Neg 2S.Gen-IF<Prf>IF-give]
      'How many more haven't you given (to somebody) yet?'

Like the above three nominal interrogatives, the question word pida 'how many' in Paiwan may appear sentence initially or medially. When appearing in sentence initial position (e.g. [41b]), it serves as predicate and is not preceded by any case marker; such a construction is a nominal sentence. When in sentence medial position (e.g. [41a]), it is preceded by a case marker and the sentences are verbal. Apparently, pida 'how many' in Paiwan can be treated as a noun, like the above-mentioned three sets of nominal interrogatives. However, in the other Formosan languages studied here, the question words meaning 'how many' do not seem to share such properties. For instance, none of the

'how many' question words in the following examples are preceded by case markers, whether they appear in sentence initial or medial position:

(42) Puyuma (human vs. non-human)
   a. miasama   nu-walak
      [how:many 2S.Gen-child]
      'How many children do you have?'

   b. ulaya   munuma   nu-paysu
      [exist how:much 2S.Gen-money]
      'How much money do you have?'

(43) Atayal (human vs. non-human)
   a. piya?   ku?   pila?=su?
      [how:much Nom.Rf money=2S.Gen]
      'How much money do you have?'

   b. pa-piya?   ku?   ?ulaqi?=su?
      [Red-how:many Nom.Rf child=2S.Gen]
      'How many children do you have?'

(44) Amis (human vs. non-human)
   a. pina   ku   aca   nuni   futiŋ
      [how:much Nom price this.Gen fish]
      'How much is this fish?'

   b. (pa)-pina   ku   wawa   ni   panay
      [Red-how:many Nom child Gen Panay]
      'How many children does Panay have?'

(45) Rukai (Labuan) (human vs. non-human vs. direction)
   a. pia   ku   paisu-su
      [how:much Nom money-2S.Gen]
      'How much money do you have?'

   b. taapia   ku   lalakə-su
      [how:much Nom child-2S.Gen]
      'How many children do you have?'

   c. pakapia-su   bwaay inia   ku paisu(away from the hearer)
      [how:much-2S.Nom give   3S.Obl   money]
      'How much money did you give him?'

d. aŋupia-su   maḷa ku paisu (close to the hearer)
   [how:much-2S.Nom take   money]
   'How much money did you take?'

Though the above interrogatives are not preceded by any case marker or the like, they all share a common characteristic. That is, depending on whether the cooccurring nouns are human or non-human (and sometimes whether they are countable or uncountable non-human nouns, or whether they refer to objects moving close to or away from the hearer), different interrogative words (as in Nanwang Puyuma) or different forms of the same interrogative (as in Mayrinax Atayal, Amis and Labuan Rukai) are used." Moreover, in Labuan Rukai, which form of the same interrogative words is used may depend on whether the argument in question is away from or close to the hearer. Such a distinction is found in no other Formosan languages under investigation.

Like Puyuma, Saisiyat has two different interrogative words meaning 'how many' but unlike all the above-mentioned languages, the use of either interrogative word in Saisiyat depends on the countability/plurality of the cooccurring nouns, as shown below:

(46) Saisiyat (countable vs. uncountable)
  a. maʔiḷæh piza?
     [man   how:many]
     'How many people are there?'

  b. noka? korkoriŋ piza?   tatpo?
     [Gen child   how:many hat]
     'How many hats does the child have?'

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11. The interrogative word glossed as 'how many' in Paiwan also has a human vs. non-human distinction. That is, while pida is used for non-human participant(s), as shown in (41a-b), mapida must be chosen when the participant(s) in question is human, as illustrated below:
    (i) *ma*pida   a   caucau   itjuma?   katiaw
        [how:many Lin person   in:house   yesterday]
        'How many people were there in the house yesterday?'

c. ray   tontonay pinobæḭæh koza?
   [Loc bottle   wine   how:much]
   'How much wine is there in the bottle?'

d. kahoey koza?   kin ?ibabao?
   [tree how:much Asp tall   ]
   'How tall is the tree?'

Similarly, the word pio 'how many' in Tsou does not show a human vs. non-human distinction either. Also note that it follows the modal (e.g. mo in [47a-b]) and should be treated as a verb:

(47) Tsou
  a. mo   pio   ?o   ?o-?oko-su
     [AF/Real how:many Nom Red-child-2S.Gen]
     'How many children do you have?'

  b. mo   pio   ?o   peisu-su
     [AF/Real how:much Nom money-2S.Gen]
     'How much money do you have?'

Though right now we have no strong evidence to support that the interrogative words meaning 'how many' in the named Formosan languages/dialects except in Tsou belong to the noun class, yet based on the Paiwan case, we tentatively consider that they are nouns and resemble the above-mentioned three sets of interrogative words functionally. The following table concludes the present discussion:

Table 7 : Question words meaning 'how many' in some Formosan languages

Languages		question words meaning 'how many'	syntactic distribution					
			sentence initial position			sentence non-initial position		
			serving as predicate	case marking	sentence type	serving as predicate	case marking	sentence type
Atayal	Mx	piya? (non-human) papiya? (human)	+	-	nominal		---	
Tsou		pio		---		+	-	verbal
Rukai	Lb	pia (non-human) taapia (human) pakapia (human) aŋupia (human)	+	-	nominal		---	
Puyuma	Na	munuma (non-human) miasama (human)	+	-	nominal	-	-	verbal
Saisiyat		piza? (countable) koza?(uncountable)		---		+/-	-	nominal
Paiwan		pida (non-human) mapida (human)	+	-	nominal	-	+	verbal
Amis		pina (non-human) papina (human)	+	-	nominal		---	

4.2 Adverbial Interrogatives

As we will discuss below, adverbial interrogatives are the question words that functionally manifest spatial, temporal, frequency or reason relationship. Since these question words are also often preceded by some case markers, prepositions or particles, they can be grouped into the noun class.

4.2.1 Spatial Interrogatives

Below let us first give Mayrinax examples with spatial question word inu? 'where' which is used when the speaker wants to find out the location of something or some action, or the goal or source of an action involving movement:

(48) Atayal
a. kia? *i?* __inu?__ ku? naniqan
[exist Prep where Nom.Rf restaurant]
'Where is the restaurant?'

b. m<in>aniq *i?* __inu?__ ku? naβakis
[AF<Prf>eat Prep where Nom.Rf old:man]
'Where did the old man eat?'

In the above sentences, notice that the locative preposition i? precedes the interrogative inu? 'where'. The two form a locative phrase and designate the place where the object is or where the event took/will take place. Examples containing a spatial interrogative word and a locative marker from some other Formosan languages are given below:

(49) Saisiyat
a. korkoriŋ *haw* ?ino?
[child where]
'Where is the child?'

b. ʃo?o *haw* ?ino? matawaw
[2S.Nom where work]
'Where do you work?'

(50) Paiwan
a. *iza* __inu-sun__
[exist where-2S.Nom]
'Where are you?'

b. na-v<ən>əʃi-sun *iza* inu tua sunatj
[Prf-buy<AF>buy-2S.Nom exist where Acc book]
'Where did you buy books?'

(51) Puyuma
a. a-uka-yu *i* __suwa__
[Red-go-2S.Nom Prep where]
'Where will you go?'

b. ulaya-yu *i* __suwa__
[exist-2S.Nom Prep where]
'Where are you?'

(52) Amis
a. *i* cuwa kisu ma-futi?
[Prep where 2S.Nom AF-sleep]
'Where will you sleep?'

b. *i* <u>cuwa</u> kisu   mi-aca tu   cułał
[Prep where 2S.Nom AF-buy Acc   book]
'Where will you buy the book?'

In all. the above examples, the interrogative words are reasonably categorized as nouns since like ordinary nouns, they can be preceded by some sort-of locative markers. However, among the investigated Formosan languages, Tsou and Labuan Rukai have the spatial interrogatives not preceded by any locative markers. For instance:

(53) Tsou

a. mi-ko   oeŋiti <u>nenu</u>
[AF-2S.Nom sleep where]
'Where did you sleep?'

b. mi-ko   eon <u>nenu</u> ho   mhia tposi
[AF-2S.Nom be where and buy   book]
'Where did you buy the book?'

(54) Rukai (Labuan)

a. yakai-su   <u>inu</u>   wapəcə
[exist-2S.Gen where sleep]
'Where did you sleep?'

b. yakai-su   <u>inu</u>   waga
[exist-2S.Gen where cook]
'Where do/did you cook?'

In this case, we have no supporting evidence to justify if <u>nenu</u> in Tsou and <u>inu</u> in Labuan Rukai are nouns.[12] Yet the two and <u>inu?</u> in Mayrinax Atayal, <u>?ino?</u> in Saisiyat and <u>inu</u> in Paiwan seem to be cognates. We then tentatively analyze all of them as nouns here.

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12. Though our Tsou data do not have <u>nenu</u> preceded by a case marker, Szakos (1994:185) presents examples with <u>nenu</u> following the Oblique case marker <u>no</u>, which indicates that <u>nenu</u> is a noun. Also, Zeitoun (p.c.) considers that <u>nenu</u> may be derived from the Oblique case marker <u>ne</u> and <u>inu</u>, which also helps support that <u>nenu</u> is a noun. As for <u>inu</u> in Labuan Rukai, though no case marker can precede it, the same phonemon is found with other locative nouns. Thus, it may also be legitimate to treat <u>inu</u> as a noun.

4.2:2 Temporal Interrogatives

Next, let us examine the temporal interrogative words. As will be noticed below, all the languages/dialects under investigation here, except for Puyuma, utilize some particles or affixes to show the temporal past-future distinction. Consider:

(55) Atayal

a. m<in>βainay *cu?* <u>humicuwa?</u> cu?   situiŋ   ?i?
[AF<Prf>buy Part when   Acc.Nrf clothes Nom
βa?ay
βa?ay]
'When did βa?ay buy clothes?'

b. pa-βainay   *ʔi?* <u>humicuwa?</u> cu?   situiŋ   ?i?
[Fut.AF-buy Part when   Acc.Nrf clothes Nom
βa?ay
βa?ay]
'When will βa?ay buy clothes?'

(56) Tsou

a. mi-ta   m-oŋoi   *ne*-<u>homna</u>
[AF-2S AF-leave Past-when]
'When did you leave?'

b. te-ko   m-oŋoi   *ho*-<u>homna</u>
[AF/Irr-2S.Nom AF-leave Fut-when]
'When will you leave?'

(57) Rukai (Labuan)

a. wacəələ-su   *ku*-iga   idaa
[see-2S.Nom Past-when that]
'When did you see him?'

b. ay-cəələ-su   *nu*-iga   idaa
[Irr-see-2S.Nom Fut-when   that]
'When will you see him?'

(58) Saisiyat

a. sia   *ka-?ino?an*   m-wali?
[3S.Nom Past-when. AF-come]
'When did he come?'

b. sia   ø-ʔinoʔan ʔam m-waʝiʔ
[3S.Nom Fut-when Irr AF-come]
'When will he come?'

(59) Paiwan

a. na-vayk *ka-ŋida*   timadju
[Prf-go Past-when 3S.Nom]
'When did he leave?'

b. uri   vayk *nu-ŋida* timadju
[will go   Fut-when 3S.Nom]
'When will he leave?'

(60) Amis

a. *anu* hakuwa l<um>uwał   ciŋra
[when   set:off<AF>set:off 3S.Nom]
'When will he set off?'

b. *na i*   hakuwa l<um>uwał   ciŋra
[Prep when   set:off<AF>set:off 3S.Nom]
'When did he set off?'

Though Puyuma does not seem to make a distinction between past and future temporal expressions, the temporal interrogative word asuwa is preceded by the Oblique case marker kan, as shown below:

(61) Puyuma

a. a-uka-yu   *kan* asuwa i   taihok
[Red-go-2S.Nom Obl when   Prep Taipei]
'Where will you go to Taipei?'

b. ḍa-ḍuwa-yu   *kan* asuasuwa
[Red-come-2S.Nom Obl when   ]
'Where will you come?' (more polite)

Consequently, it is legitimate to treat all the temporal interrogative words discussed above as nouns.

4.2.3 Frequency Interrogatives

In the following discussion, we will examine the frequency interrogative word; i.e. question words glossed as 'how often'. Right

now we only have examples with the frequency interrogative from Mayrinax Atayal:

(62) Atayal

a. *ñʔ*   makapiʔaʔ ɣaʔ m-usaʔ=siʔ   taypak
[Part how:often Top AF-go=2S.Nom Taipei]
'How often do you go to Taipei?'

b. cuʔ   ŋaʔ   ɣaʔ makapiʔaʔ ɣaʔ m-usaʔ=siʔ
[Part before Top how:often Top AF-go=2S.Nom
taypak
Taipei]
'How often did you go to Taipei before?'

Note that the frequency interrogative makapiʔaʔ in Mayrinax Atayal may optionally be preceded by the particle ʔiʔ, which justifies that the interrogative is a noun as well. As for the frequency interrogatives in other Formosan languages, more research is needed.

4.2.4 Reason Interrogatives

The next interrogative words to investigate are those that question the reasons. First, consider the following Paiwan sentences which contain such an interrogative:

(63) Paiwan

a. kəmələŋ-akən tu   pida   ka *tua* aku a   zua
[know-1S.Nom Acc how:many and Acc why Lin that]
'I know how many and why it is'

b. na-k<əm>uda   aku-sun   a   kitukuda
[Prf-do<AF>do why-2S.Nom Lin leave]
'Why did you leave?'

As shown in sentence (63a), the Paiwan interrogative word aku 'why' may be preceded by the Accusative case marker tua, which seems to justify the named interrogative is a noun. However, in (63b), aku attracts clitic pronoun -sun, which seems to indicate that aku may be a

verb. The actual status of aku is then a question. In the other Formosan languages/dialects investigated here, we have no evidence to justify that such 'why' interrogative words are nouns since they are not preceded by any case markers or the like, as illustrated below:

(64) Atayal

    a. micuwa?=su? ka? m-usa? la
      [why=2S.Nom Lin AF-go Part]
      'Why did you go?'

    b. micuwa?=su? ka? m-a?usa? ?i? kali?an kisa?
      [why=2S.Nom Lin AF-go Part afternoon today]
      'Why will you go this afternoon?'

(65) Rukai (Labuan)

    a. a-su wa labua
      [why-2S.Nom go Labuan]
      'Why do/did you go to Labuan?'

    b. a-nu ma-da-damǝkǝ
      [why-2P.Nom Rec-Red-beat]
      'Why do you beat each other?'

(66) Tsou

    a. mainci te-ko m-oŋoi
      [why AF/Irr-2S.Nom AF-leave]
      'Why will you leave?'

    b. mainci i-ko eobak-a na taini
      [why NAF/Real-2S.Gen beat-PF 3S]
      'Why are you beating him?'

(67) Puyuma

    a. ḍaw m-uka-yu i tayhok
      [why AF-go-2S.Nom Prep Taipei]
      'Where did you go to Taipei?'

    b. ḍaw s<ǝm>aŋa-yu ḍa iḍus
      [why make<AF>make-2S.Nom Obl.Nsp spoon]
      'Why do you make spoons?'

(68) Saisiyat

    a. ʃo?o ?ampoḷa? rima?
      [2S.Nom why leave]
      'Why do you leave?'

    b. ʃo?o ?ampoḷa? ʃ<om>eβet hisia
      [2S.Nom why beat<AF>beat 3S.Acc]
      'Why did you beat him?'

(69) Amis

    a. anu/naw t<um>aŋic kisu
      [why cry<AF>cry 2S.Nom]
      'Why do you cry?'

    b. anu/naw mi-palu? ci panay-an
      [why AF-beat Acc_1 Panay-Acc_2]
      'Why do you want to beat Panay?'

Moreover, we notice that all the above sentences seem to be verbal sentences, with the 'why' interrogatives appearing in sentence initial position (except for Saisiyat) and preceding the main verbs. Also, the Mayrinax Atayal and Labun Rukai sentences show that such interrogative words may attract bound pronouns, which indicates that the interrogative words in question may be part of a predicate. Nevertheless, we have no convincing evidence to claim what part of speech these 'why' interrogative words belong to, which deserves further investigation.

4.3 Verbal Interrogatives

Some of the interrogative words in the investigated Formosan languages belong to the verb class. They may manifest events and appear as predicates. Though this group of interrogative words and the nominal interrogative group (discussed in Section 3.1) may both serve as predicates and appear in sentence initial position (except in Saisiyat), there are two ways, among others, to differentiate one from the other:

(i) while the verbal interrogatives can be affixed with focus and/or tense/aspect markers, or attract clitic pronouns, the nominal interrogatives cannot;

(ii) while the nominal interrogatives may appear in sentence medial position and be preceded by (or contain) case markers, the verbal

interrogatives cannot.

Now let us first examine the verbal interrogative words in Mayrinax Atayal. In the named language, the interrogative word <u>humicuwa?</u> 'how' and its various forms with different focus/tense/aspect affixes are used when one questions the means of transportation used to move from one location to another, or the instrument with which some activity is done. For instance:

(70) Atayal

a. h<u>um<in></u>icuwa?=si?   cu?   m-usa?=si?
   [how<AF<Prf>how=2S.Nom   Lin   AF-go=2S.Nom
   taypak
   Taipei]
   'How did you go to Taipei?'

b. pa-hicuwa?=si?   m-usa? i?   taypak
   [Fut.AF-how=2S.Nom   AF-go   Prep   Taipei]
   'How will you go to Taipei?'

c. h<u><in></u>icuwa?=si?   ma-ɣal ku?   qulih ka?
   [how<Prf.PF>how=2S.Gen   AF-take   Nom.Rf   fish   Lin
   hani
   this]
   'How did you catch this fish?'

d. hacuwal-un=si? ma-ɣal ku?   qulih ka? hani
   [how-PF=2S.Gen   AF-take   Nom.Rf   fish   Lin   this]
   'How did you catch this fish?'

Similarly, in some of the other named Formosan languages, the interrogative words glossed as 'how' function in a similar way. Examples containing such verbal interrogative words in Tsou, Nanwang Puyuma, Paiwan and Amis are given below:

(71) Tsou
   da-ko   mainenu ?o   hia-su pei?i
   [Hab-2S how   Nom   -2S   cook]
   'How do you cook?'

(72) Puyuma

a. kamuta-yu   m-uka i   tayhok
   [how<AF>how-2S.Nom   AF-go   Prep   Taipei]
   'How did you go to Taipei?'

b. k-a-kuta-yu   m-uka i   baʃaŋaw
   [how-Red-how-2S.Nom   AF-go   Prep   Taitung]
   'How are you going to Taitung?'

(73) Paiwan

a. k<u>in</u>uda   ka   k<əm>əsa
   [how<Prf>how   when.Past   cook<AF>cook]
   'How did you cook?'

b. ma-kuda-sun
   [AF-how-2S.Nom]
   'How are you?'

c. uri   kəmuda-sun   a   k<əm>əsa   tua
   [will   how<Prf>how-2S.Nom   Lin   cook<AF>cook   Acc
   kinsa
   rice]
   'How will you cook the rice?'

(74) Amis

a. maan-ən isu   pasi-fana? tu   caciyaw nu amis
   [what-PF 2S.Gen   -know   Acc   language   Gen Amis]
   'How do you teach the Amis language?'

b. paka-maan kisu   tayra pasi-fana   tu   caciyaw
   [PAKA-what 2S.Nom   go   -know   Acc   language
   nu   amis
   Gen   Amis]
   'What transportation will you take to teach the Amis language?'

There are also languages such as Saisiyat in which the interrogative word glossed as 'how' is not affixed with any focus or tense/aspect marker:

(75) Saisiyat
   a. ʃo?o   <u>nak-?ino</u> rima? toypey
   [2S.Nom   how   go   Taipei]
   'How do you go to Taipei?'

b.ʃoʔo   nak-ʔino t<om>alək   ka   pazay
[2S.Nom how   cook<AF>cook Acc rice]
'How do you cook rice?'

Though the interrogative word nak-ʔino 'how' in Saisiyat is not marked with any focus or tense/aspect affixes, the syntactic distribution of the named interrogative word somehow helps to justify that it is a verb. That is, the interrogative word in question follows the noun (phrase) functioning as the subject of the sentence and it may precede a verb which supports that nak-ʔino 'how' is a verb in Saisiyat.[13] Consequently, we conclude that the interrogative words glossed as 'how' in the above-mentioned Formosan languages are all verbs and they are verbal interrogatives.

5. Concluding Remarks

In the present paper, we investigate the interrogative constructions in seven Formosan languages, including Atayal, Saisiyat, Tsou, Rukai, Paiwan, Puyuma and Amis. The interrogative constructions under study here are yes-no questions, alternative questions and content questions (or so-called wh-questions).

In the above-mentioned languages, there are two strategies of forming the yes-no questions: (i) phonological strategy: the yes-no questions and their corresponding declarative sentences may be identical except for different intonation patterns, pitch accent or vowel length and (ii) lexical/morphological strategy: the yes-no questions may be formed with their corresponding declarative sentences and a question particle or a bound morpheme, with or without changing the intonation pattern.

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13. In Saisiyat, the word nak is a verb, which may also help support that nak-ʔino is a verb as well:

(i) hizaʔ   korkoriŋ nak   hi   yaβaʔ   nisia
[that   child   resemble Acc father   3S.Nom]
'That child is like his father'

As for the alternative questions in the languages under study, their structures vary: they can either be nominal/equational or verbal/non-equational sentences; they may either contain a word meaning 'or' or not; their intonation patterns may resemble or differ from those of their corresponding declarative sentences; they may or may not have identical elements 'deleted', and such 'deletion' may be either forward or backward.

Similarly, the special questions (or so-called wh-questions) can also be either nominal/equational or verbal/non-equational constructions. As for the wh-words appearing in special questions, they can either be nouns or verbs. Structurally, the interrogative words belonging to the noun class are preceded by case markers and the like, while the interrogative words in the verb class can be affixed with focus and/or tense/aspect markers. Functionally, these interrogative words can be categorized into three types: (i) nominal interrogatives, i.e. wh-words manifesting participants/referents in argument position, and functioning as pronouns/nouns which can be preceded by case markers; (ii) adverbial interrogatives, i.e. wh-words designating referents in non-argument position, and functioning as adverbs and (iii) verbal interrogatives, i.e. wh-words functioning as verbs which manifest events and can be affixed with focus and/or tense/aspect markers. The last class, i.e. verbal interrogatives, seems to be unique to Formosan, or perhaps Western Austronesian, languages.

References

Chiang, Wen-yu. 1996. *The intonation of interrogative sentences in Nantou Atayal*. Taipei: National Science Council Report NSC 83-0301-H002-072. (In Chinese)

Comrie, Bernard. 1984. Interrogativity in Russian. In *Interrogativity: A colloquium on the grammar, typology and pragmatics of questions in seven diverse languages,* pp.7-46, ed. by Chisholm, Milic and Greppin. Amsterdam: John Benjamins Publishing Company.

Harris, Alice C. 1984. Interrogativity in Georgian. In *Interrogativity: A colloquium on the grammar, typology and pragmatics of questions in seven diverse languages,* pp.63-112, ed. by Chisholm, Milic and Greppin. Amsterdam: John Benjamins Publishing Company.

Huang, Lillian M. 1995. *A study of Mayrinax syntax*. Taipei: The Crane Publishing Company.

——, et al. 1998. A typological overview of nominal case marking systems of some Formosan languages. In *Selected papers from ISOLIT-II,* pp.23-49. Taipei: National Taiwan University.

Szakos, Joseph. 1994. Die Sprache der Cou: Untersuchungen zur Synchronie einer austronesischen Sprache aur Taiwan. Ph.D. dissertation, Rheinischen Friedrich-Wilhelms-Universitat zu Bonn, Germany.

Yeh, Marie M. 1991. Saisiyat structure. M.A. thesis, Tsing Hua University, Hsinchu.

Zeitoun, Elizabeth. 1995. Problemes de linguistique dans les langues aborigenes de Taiwan [Issues on Formosan Languages]. Unpublished Ph.D. dissertation, Paris 7, Paris.