TWO TYPES OF ADVERBIALS IN MAYRINAX ATAYAL

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1. Introduction

Mainly focusing on the morphological representations and syntactic distributions, adverbials in Mayrinax Atayal (MA) would be classified, following Hsiao's (2004) predicate-like and adjunct-like adverbs distinction in Squliq Atayal, which is one of the dialects of Atayal spoken in Taiwan. Following previous studies (Chang 2004, 2005, Li 2007), two more criteria are proposed in distinguishing the types of adverbs in MA: the existence of linker *'i'* and syntactic distributions of adverbials. The linker *'i'*, also manipulated in Serial Verb Construction, would then be considered as one of historical remains, which further justifying Tsai's (to appear) assumptions on the grammaticalization among Formosan languages.

2. Background

MA is a dialect of C'uli', which is one of the two major subgroups of Atayal, and the other is Squliq Atayal. MA, as one of Formosan languages, is spoken in Chinshui Village (錦水村), Taian Hsiang (泰安鄉), Miaoli prefecture (苗栗縣), Taiwan. Mayrinax is well known because of its distinctions on certain vocabulary manipulated by male and female native speakers. Besides, MA is also regarded as a language in which lots of ancient markers are preserved, used and still comprehensible nowadays.[1]

The linker *'i'* between adverbs and verbs, for instance, is one of these ancient remnants. Among the dialects of Atayal, MA is worth paying more attention on the event construction, i.e., the verb phrase modified by adverbs. By observing co-occurrence of the linker *'i'* and the types of adverbs, we try to figure out the behaviors of adverbials as well as the role of the linker *'i'* in MA.

This paper is organized as following: In section 3, previous studies would be mentioned as review on the discussion of adverbials in Formosan languages. In section 4, adverbs in MA would then be further classified into two types, predicate-like and adjunct-like adverbs, according to certain distinctive properties. Finally, the linker would be analyzed as a historical remnant from the V-V conjunction construction, following Tsai's (to appear) idea.

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[1] Lots of these ancient markers, such as the linker *'i'*, discussed in the following section, can be precisely judged, and though these markers tend to be gradually omitted in daily conversations among native speakers of MA.

3. Literature Review on Adverbials in Formosan Languages

3.1. Huang (1995, 2000)

With the similarity in syntactic behaviors, adverbs in MA are regarded as one kind of predication, similar to normal verbs. Identical to the behaviors in serial verb constructions, shown in (1), two constituents in (2) are also linked by *'i'*, which also takes the same function in serial verb constructions in (1) (Huang 1995: 191):

(1) M-a'usa' 'i'   k-um-aluap   'i'   casan   'i'   Yumin.
     AV-go   Link   hunt-AV-hunt   Particle   tomorrow   Nom   Yumin

    'Yumin will go hunting tomorrow.'

(2) Lihka' 'i'   ma-ktaliyun   ku'   'ulaqi'.
     fast   Link   AV-run   Nom   child

    'The child is running fast.'

Carrying the correspondent voice marker, two constituents composing serial verb constructions in (1) could be plausibly treated as verbs. Without the voice markers, however, adverb in (2) seems to be quite unlike, under the morphological affixation.

3.2. Chang (2004, 2005) in Kavalan

Chang (2004) takes another perspective on the behaviors of adverbs in Kavalan, one of Formosan languages spoken in Taiwan. He claims that the adverbials should be considered as the main verbs and the following lexical verb as the complements. He further divides adverbials into four types, according to their syntactic distributions and morphological properties:

(3)

Type A—SVC-I
A sequence of verbs without intervening conjunctions
AV-only restriction
No aspectual/ modal/ pronominal marking
Inflected with imperative suffixes
As matrix verbs, taking the following VP phrase as the complements

Type B—SVC-II
A sequence of verbs without intervening conjunctions
No AV-only restriction
With aspectual/ modal/ pronominal marking
Inflected with imperative suffixes

Type C—becoming adverbs
Restricted to sentence-initial position→ not typical adverb
Unable to host bound pronouns→ not typical verb

Type D—Adjunct
Free distribution
Not sentence-initially existence

In general, three kinds of adverbs is inducted under Chang's observations: predicate-type, adjunct-type and the other one between them. All of these types are divided by means of examining the syntactic distribution and morphological affixation, such as relative distribution of the adverbs and imperative suffixation, respectively.

In addition to these criteria of discriminate the type of adverb, Mayrinax Atayal also provides us another hint to distinguish. That is the linker *'i'*, which has been omitted in other dialects of Atayal. The linker *'i'* occurring between two components of a serial verb construction, which is theoretically defined as a sequence 'in which verbs sharing a common actor or object are merely juxtaposed with no intervening conjunctions'(Foley and Olson 1985).

However, in some occasions, this linker sometimes becomes optional and sometimes obligatory. This is another phenomenon relating to the historical evolution of MA.

3.3. Li (2007) in Puyuma

Based on three restrictions, Li subclassifies adverbial expressions in Puyuma, a Formosan language spoken in the southeast of Taiwan (Li 2007: Table 4):

(4)

		AV RESTRITION	ARGUMENT ATTRACTION RESTRICTION	ARGUMENT OCCURRENCE RESTRICTION
Type I		Yes	Yes	Yes
Type II	A	No	No	Yes
	B	Yes	Yes	
Type III		No	No	No

Under Li's observations, adverbs in type I obey these three restrictions: AV restriction—voice marker on the following lexical verb must be Agent Voice, Argument attraction restriction—the argument selected by the lexical verb must be attached to the preceding adverb, and Argument occurrence restriction—the arguments occur just once. Li's assumptions provide us a standard way to evaluate the types of adverbs.

3.4.　Hsiao (2004) in Squilq Atayal

From the observations of Hsiao (2004), we can also discover two types of adverbs in Squilq Atayal, which is another dialect of Atayal:

A. Predicate-like type
(5)　M-qnhway　　m-wah　　　qu'　　Tali.
　　　AV-slowly　　AV-come　　Nom　　Tali

　　　'Tali comes slowly.'　　　　　　　　　　　　　　　　　(Hsiao 2004: 49)

(6)　Wal　si　pk'ia　　m-ihiy　　Tali　qu'　　Yumin.
　　　Perf　SI　violent　AV-beat　Tali　Nom　Yumin

　　　'Yumin beat Tali violently.'　　　　　　　　　　　　(Hsiao 2004: 57)

B. Adjunct-like type
(7)　Ulung　　　　(sa)　qriq-un　na　　Tali　s<m>i　　　t'tu　qu'　　rhyal
　　　fortunately　Par　steal-PV　Obl　Tali　put-AV-AV　trap　Nom　ground
　　　squ'　hera.
　　　Obl　yesterday

　　　'Fortunately, Tali put the trap on the ground stealthily.'　(Hsiao 2004: 72)

(8)　Ki'a　　　　cyux　m-'abi　　slaq　hozil　qasa.
　　　probably　Asp　AV-sleep　farm　dog　　that

　　　'Maybe the dog is sleeping in the farm.'　　　　　　(Hsiao 2004: 73)

Although some vocabulary shared between Squilq Atayal and Mayrinax Atayal, these two dialects can be crucially distinguished on the existence of the linker *'i'* between adverbs

and verbs.

4. Types of Adverbials in MA

Based on Hsiao's categorization, we can divide adverbs in MA into two types: predicate-like and adjunct-like adverbs. For each type, Li's restrictions would be applied as criteria in order to further confirm their syntactic properties.

4.1. Predicate-like Adverbs

Adverbs in this type with Voice inflection affix and bound pronominal clitics behave similarly to the main predicate. Moreover, there is a linker occur between these adverbs and the following lexical verb. In addition, the emergence of this linker *'i'* seems to be arbitrary.

4.1.1. Voice Markers and Bound Pronoun

Acting as a predicate, adverbs in MA are also observed to have Voice markers (9). In addition, the bound pronouns are found to be attached on the adverbs in this type, instead of on the lexical verb (10). Once negated, the adverbs carry only the Voice marker, while the bound pronoun then attach to the initial negation (11), just like a matrix predicate:

(9) a. **M**-ubagaq 'i'   k<um>alu   'i'   Watan.
         AV-polite   Link   talk-AV-talk   Nom   Watan

         'Watan talked politely.'

     b. K<**um**>alu   'i'   Watan.
         talk-AV-talk   Nom   Watan

         'Watan talked.'

(10) a. **Si**-punabak=mi' la   cokang 'i'   k<um>awah   ku'   kurol.
         IV-carefully=1st Asp very   Link   open-AV-open   Nom   box

         'I've already carefully opened the box.'

     b. K<um>awah=mi'   ku'   kurol.
         open-AV-open=1st   Nom   box

         'I opened the box.'

(11) a. Ini=mu'   ubuga-**ani** 'i'   baiq   cu'   heing   'i'   hiya'.
         Neg=1st   polite-**BV** Link   give   Acc   candy   Nom   he

         'I impolitely gave him the candies.'

b. Ini=mu' baiq-i cu' pila' ku' 'ulaqi'.
Neg=1ˢᵗ give-**LF** Acc money Nom child

'I didn't give the child money.' (Huang 1995: 66)

4.1.2. AV-only Restriction

Just like the situation in Serial Verb Construction mentioned in previous studies, adverbs act as the main predicate, assign the arguments with proper case markers, and bound the following lexical verb with AV form only:

(12) a. **Ma**-na-mat'mati 'i' t<**um**>uting cu' 'ulaqi' 'i' Watan.
AV-violently Link beat-**AV**-beat Acc child Nom Watan

b. A'-mat'mati-**un** 'i' t<**um**>uting ni Watan ku' 'ulaqu'.
Red-violently-**PV** Link beat-**AV**-beat Gen Watan Nom child

c. *__Ma__-na-matimati 'i' tuting-**un** ni' Watan ku' 'ulaqi'.
AV-violently Link beat-**PV** Gen Watan Nom child

d. *A'-mat'mati-**un** 'i' tuting-**un** ni' Watan ku' 'ulaqi'.
Red-violently-**PV** Link beat-**PV** Gen Watan Nom child

'Watan beats the child violently.'

It is obvious that the adverbial can be formed as either Agent Voice or Patient Voice, with different case markers on the arguments. But it is not the case for the following lexical verb in (12c). Agreement between adverbials and lexical verb in terms of Voice System could not repair this failure (12d). AV-only restriction is absolutely required in this type of adverbs.

4.1.3. Arbitrariness of Linker *'i'*

One of the distinctive properties in MA is the existence of linker *'i'*. This linker occurs between the adverbials and the following lexical verbs (13), as well as between two adverbs (14):

(13) a. An-liliah-un 'i' t<um>uting 'i' Watan.
often-PV Link beat <AV> Nom Watan

'It is often for Watan to be beaten.'

b. Ma-na-matimati 'i' t<um>uting cu' 'ulaqi 'i' Watan.
AV- violently Link beat-AV-beat Acc child Nom Watan

'Watan violently beats the child.'

(14) An-liliah-un   'i'   ma-na-mat'mati   'i'   t<um>uting 'i'   Watan.
    often-PV   Link   AV-violently   Link   beat <AV>   Nom   Watan

'It is often for Watan to be beaten violently.'

Its appearance, however, is arbitrary: sometimes it's optional (15), sometimes it's obligatory (16).

(15) Ma-nahaiyau **('i')**   h<um>akay   'i'   Watan.   **('i' is optional)**
    AV-Slowly   Link   walk-AV-walk Nom   Watan

'Watan walked slowly.'

(16) Hailag   cubalai ***('i')**   ma-ktaliyun ku'   bauwaq.   **('i' is obligatory)**
    quickly very   Link   AV-run   Nom   pig

'Pig runs very fast.'

Overall, the emergence of the linker *'i'* under this type of adverbs is definitely grammatical, since sentence failure may result from the omission in the some obligatory situations. And the optionality of that linker seems to be the outcome of ease of articulation among the native speakers.

4.1.4.   Inability of Being Topicalized

All the arguments in MA could be topicalized at the initial position followed a topic marker *ga*. Adverbs in this type, of course, are not allowed to be a topic:

(17) a.   Ma-na-lialiah 'i'   t<um>uting cu'   'ulaqi' 'i'   Yumin.
        AV-frequently Link   beat-AV-beat Acc   child   Nom   Yumin

    b.   *Ma-na-lialiah **ga**   t<um>uting cu'   'ulaqi 'i'   Yumin.
        AV-frequently TOP   beat-AV-beat Acc   child   Nom   Yumin

        'Yumin often beat the child.'

(18) a.   T-um-uting   cu'   'ulaqi'   'i'   Yumin.
        beat-AV-beat   Acc   child   Nom   Yumin

    b.   *T-um-uting   **ga**   cu'   'ulaqi'   'i'   Yumin.
        beat-AV-beat   TOP   Acc   child   Nom   Yumin

        'Yumin beats the child.'

Normally, it is not possible to topicalize an adverbial; however, adverbs in the other type, Adjunct-like adverbs, are observed to be topicalized. We will discuss this part in section 4.2.4.

4.1.5. Rigid Distribution

Similar to the main predicates in verb-initial languages, adverbials in MA are restricted in the positioning. With Voice marker and bound pronoun, adverbials always initially occur. Other alternative orderings are not allowed:

(19) a. <u>Ma-nahaiyau</u>   h\<um>akay   'i'   Watan.
           AV-Slowly   walk-AV-walk   Nom   Watan

     b. *H\<um>akay   <u>ma-nahaiyau</u>   'i'   Watan.
           walk-AV-walk AV-Slowly   Nom   Watan

     c. *H\<um>akay   'i'   Watan   <u>ma-nahaiyau</u>.
           walk-AV-walk Nom   Watan   AV-Slowly

      'Watan walked slowly.'

4.2. Adjunct-like Adverbs

Lacking of Voice markers, adverbs in this type are not required to initially occur in sentence. Instead, their distributions would be relatively free. Distinctively, the linker *'i'* is not allowed for these adverbs. Moreover, Adverbs in this type can be topicalized with topic marker *ga*. In addition, there is no AV-only restriction for this type of adverbials.

4.2.1. No Voice Marker and Relevant Argument

Adverbs in this type are not allowed to have any Voice marker. Instead, the following lexical verb acts as the matrix predicate (20). Moreover, this type of adverbs would attach either no argument or the bound pronoun irrelevant to the verb (21):

(20) Ki'i'   c\<in>bu   na'   ku'   bakarowap.
     probably   shoot-PV-shoot   Ins   Nom   hunting/hunter

    'It is probably that it was killed by the hunter.'

(21) a. Asi=**mu**-ga   bak-un=mu   hiya.
           seemingly=**1s.**   know-PV=1s. he

      'It seems to me that I know him.'

     b. Asi=**nia'**-ga   bak-un=nia   hiya.
           seemingly=**3s.** know-PV=3s. he

      'It seems to him$_i$ that he$_i$ knows him$_j$.'

4.2.2. No AV-only Restriction

The Voice system of the following lexical verb would no longer be restricted in Agent Voice. In other words, the preceding adverb would not get involved in the event:

(22) Asi-ga   tuting-un   kalialia'h   'i'   Watan.
      probably   beat-PV   often   Link   Watan

     'It is probably that Watan is often beaten.'

4.2.3. No Linker Is Allowed

Different from predicate-like adverbs, the linker *'i'* is absolutely forbidden under this type of adverbs:[2]

(23) Tuting-un (*'i')   kalialia'h   'i'   Watan   cu'   'ulaqi'.
      beat-PV   Link   often   Nom   Watan   Acc   child

     'Watan often beats the child.'

(24) Asi-ga   (*'i')   tuting-un   kalialia'h   'i'   Watan.
      probably   Link   beat-PV   often   Nom   Watan

     'It is probably that Watan is often beaten.'

(25) a.   Kalialia'h   ga   tu\<mu>ting   cu'   'ulaqi'   'i'   Yumin.
          often   TOP   beat-AV-beat   Acc   child   Nom   Yumin

     b.   *Kalialia'h   'i'   t\<um>uting   cu'   'ulaqi'   'i'   Yumin.
          often   Link   beat-AV-beat   Acc   child   Nom   Yumin

          'Yumin beats the child everyday.'

4.2.4. Capability of Being Topicalized

As mentioned above, predicate-like adverbs are unable to be topicalized. Adjunct-like adverb, however, can occur as the topic, followed by the topic marker *ga*:

(26) a.   T\<um>uting   <u>kalialia'h</u>   cu'   'ulaqi'   'i'   Yumin.
          beat-AV-beat   often   Acc   child   Nom   Yumin

     b.   <u>Kalialia'h **ga**</u>   t\<um>uting   cu'   'ulaqi'   'i'   Yumin.
          often   TOP   beat-AV-beat   Acc   child   Nom   Yumin

          'Yumin beats the child everyday.'

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2   The expression *kalialia'h* in MA can be interpreted as either 'often' or 'everyday'.

(27) a.   Ma-na-matimati <u>kalialia'h</u> 'i'   t<um>uting cu' 'ulaqi 'i' Yumin.
          AV-violently   everyday   Link beat-AV-beat Acc child Nom Yumin

    b.   <u>Kalialia'h</u> **ga** ma-na-matimati 'i'   t-um-uting   cu' 'ulaqi 'i'   Yumin.
         everyday TOP AV-violently   Link beat-AV-beat Acc child Nom Yumin

       'Yumin violently beats the child everyday.'

(28) a.   T<um>uting <u>kalialia'h</u> cu' 'ulaqi' 'i'   Yumin.
          Beat-AV-beat everyday Acc   child   Nom Yumin

    b.   Yumin **<u>ga</u>**   t<um>uting <u>kalialia'h</u> cu'   'ulaqi'.
         Yumin TOP   beat-AV-beat everyday Acc   child

       'Yumin beats the child everyday.'

4.2.5. Relatively Free Distributions

    Adverbs in this type can rather freely occur in different positions: following the first predicate (29a), following the second predicate (29b) or between the arguments (29c).

(29) a.   Ma-na-matimati <u>kalialia'h</u> 'i'   t<um>uting cu' 'ulaqi 'i'   Yumin.
          AV-violently   often   Link beat-AV-beat Acc child Nom Yumin

    b.   Ma-na-matimati 'i'   t<um>uting <u>kalialia'h</u> cu' 'ulaqi 'i'   Yumin.
         AV-violently   Link beat-AV-beat often   Acc child Nom Yumin

    c.   Ma-na-mat'mati 'i'   t<um>uting cu'   'ulaqi <u>kalialia'h</u> 'i'   Yumin.
         AV-violently   Link beat-AV-beat Acc   child often   Nom Yumin

       'Yumin violently beats the child everyday.'

4.3. Summary

    From the previous observations, predicate-like adverbs and adjunct-like adverbs can be distinguished based on the following criteria:

(30)

Adverb type / Criteria	Predicate-like adverbs	Adjunct-like adverbs
Voice marker	**Yes**	**No**
Relevant argument attachment (bound pronoun)	**Yes**	**No**
AV-only restriction	**Yes**	**No**
Linker *'i'*	**Yes**	**No**
Free distribution	**No**	**Yes**
Topicalization	**No**	**Yes**

The previous three criteria are identical to those in Puyuma (Li 2007) and Kavalan (Chang 2004, 2005). And the restriction on the distribution of adverbs could be considered as the effect caused by the attachment of Voice markers and relevant argument. AV-only restriction further confines the distribution of these predicate-like adverbs.

Apparently, the existence of the linker *'i'* seems to have nothing to do with the distinctions between these two types of adverbs in MA. In fact, however, the discrimination may unable to be departed from the linker *'i'*.

5. Reduction from Coordinate Structure

By manipulating the identical form in Amis, Liu (2003) claims that VP modifications should be originally generated from coordinate structure. According to Hsiao's (2004), Melody Chang's (2004) and Tsai's (to appear) assumptions, a coordinator in Formosan languages may either turn into a modifier marker in modification relation, or into a complementizer. This two-way grammaticalization is termed as "conjunctive reduction" (Tsai to appear: 17):

(31) Adv + V ← Adv-Modifier Marker + V ← <u>V Conj V</u> → V[Comp V] → V + V

Considering the modifying situations in MA, we can find that there are two types of adverbs, one with the linker *'i'*, the other without. Once this linker *'i'* may be regarded as a modifier marker, two types of adverbs in MA illustrate two stages of the grammaticalization of conjunctive reduction.

As mentioned earlier, the linker *'i'* also occur between two verbs in the same event, i.e., the Serial Verb Construction:

(32) a.　M-a'usa'　'i'　　ma-panga'　cku'　'ulaqi'　'i'　　yaya'.
　　　　　AF-go　　Link　AF-carry　Acc　　child　　Nom　mother

　　　　'Mother is going to carry the child on her back.'　(Huang 1995: 191)

　　b.　M- a'usa'　'i'　　ma-sacka'　　cu'　　tawqi' ku'　　nabakis.
　　　　　AF-go　　Link　AF-welcome　Acc　　chief　Nom　old-man

　　　　'The old man will go welcome a chief.'　　　　(Huang 1995: 191)

Both the connection between two verbs in SVC and the modification of adverbs on verbs can be paralleled, in terms of their semantic representations, based on Parson's (1990) assumptions on event structures:

(33) a.　Ma-na-matimati　'i'　　　t<um>uting　cu'　　'ulaqi' 'i'　　Watan.
　　　　　AV-violently　　Link　beat-AV-beat　Acc　　child　Nom　Watan

　　　　'Watan violently beat the child.'

　　b.　∃e (BEAT (e)) & Agent (e, Watan) & Theme (e, child) & VIOLENT (e))

(34) a.　M- a'usa'　'i'　　ma-sacka'　　cu'　　tawqi' ku'　　nabakis.
　　　　　AF-go　　Link　AF-welcome　Acc　　chief　Nom　old-man

　　　　'The old man will go welcome a chief.'

　　b.　∃e (GO (e)) & Agent (e, old man) & Theme (e, chief)
　　　　&　∃e' (WELCOME (e)) & Agent (e, old man) & Theme (e, chief)

The representation of conjunction could be illustrated by the linker *'i'* in both situations. These collateral phenomena account for the plausibility of conjunction reduction in (31).

Another piece of evidence comes from the language usage in MA nowadays. As mentioned in section 4.1.3, the linker *'i'* between predicate-like adverb and the lexical verb would be sometimes optional. This occasionally omission of the linker *'i'* indicates the dynamic process of conjunction reduction.

6.　Conclusion

In this article, two presumptions on adverbs in MA are concluded: (a) two types of adverbs are sub classified due to some syntactic and morphological criteria, and (b) the existence of the linker *'i'* reveals the relation between V-V conjunction and Adv-V modification, under Tsai's postulation. That is, adverbs establish their own constructions mainly in two distinctive ways. Predicate-like adverbs, originating from V-V conjunction, modify the lexical verbs with a historical remain, the linker *'i'*, occurring in-between. Adjunct-like adverbs, on the other hand, behave as real "adjuncts" juxtaposing in a sentence

with rather freely distributions.

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