

## Nominalization in Kavalan<sup>\*</sup>

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This paper explores the morphology, syntax and semantics of nominalization in Kavalan. It is shown that in Kavalan, nominalization and headless relativization, which are both subsumed under the realm of nominalization in the literature, are morphologically, syntactically, and semantically/pragmatically distinct: the former is marked by the nominalizing suffix *-an* and the latter by the complementizer clitic *=ay*; the former cannot take accusative noun phrases while the latter can; the former turns its hosts into arguments and the latter into modifiers. Furthermore, it is noted that state predicates and action predicates take different nominalizers: the former is affixed *qena-...(-an)* and the latter by *-an*. It is argued that the extra affixal complex *qena-* can be segmented as a prefix *qa-* plus an infix *-en-* and that *qa-* is likely to be equivalent to the state prefix *ka-* attested in Formosan languages such as Paiwan, Rukai, Saisiyat, etc., and *-en-* might correspond to the aspectual/nominalizing infix *-in-* found in Formosan languages such as Atayal, Seediq, Saisiyat, etc. However, it is pointed out that while *ka-* functions as an inchoativizer, *qa-* simply serves as a grammatical marker. Besides, it is also noted that there is no formal distinction between lexical nominalization and syntactic nominalization in Kavalan. Both of them are marked by the suffix *-an*.

Key words: nominalization, headless relativization, nominalizer, complementizer, state predicates, action predicates, inchoativizer, grammatical marker, lexical/syntactic nominalization

### 1. Introduction

Linguists might have different definitions of nominalization. For some linguists, nominalization broadly refers to “grammatical processes by which a verb, a verb phrase, a sentence, or a portion of a sentence including the verb can function as a noun

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phrase” (Li and Thompson 1982:575). Under this functional definition, for instance, the elements with *de* shown below are all claimed to be involving nominalization in Chinese:

- (1) Li and Thompson (1982:575)
- a. zhei zhong zhiwu keyi dang zuo chi de  
 this type plant can take be eat Nmz<sup>1</sup>  
 ‘(One) can take this type of plant as food.’
- b. zhong shuiguo de hen nan guohuo  
 grow fruit Nmz very difficult make living  
 ‘It is difficult for fruit growers to make a living.’

In (1a-b), *chi de* and *zhong shuiguo de* behave on a par with noun phrases and function as the object and the subject of their respective predicates. They are thus claimed to have undergone nominalization.

In this paper, however, we would like to distinguish nominalization from headless relativization. Processes like those attested in (1) will be treated as involving headless relativization instead. The term “nominalization” will be only used for the process of deriving a noun from a verb or an adjective. We will show that the nominalization-relativization differentiation is not trivial, especially in Kavalan. We shall return to this issue shortly.

Derivations have attracted the attention of linguists ever since they became involved in the study of language. Linguists have been continually interested in what relations nominals and their source elements hold. How do they behave alike or differently from each other morphologically, syntactically, and semantically? It is well-known that derived nominals usually bear extra morphological markings and have quite different distributions from their source verbs: unlike their source verbs, derived nominals cannot be inflected for tense/mood and cannot pattern with auxiliaries, accusative NPs, or modifying adverbs. These differences also hold true for event nouns, which denote events on a par with their source verbs and appear to be less distinct from them. For instance, the objects of event nouns tend to be optional while the objects of their source verbs usually cannot be deleted. Compare:

- (2) a. The investigation (of the kickback scandal) surprised us.  
 b. The prosecutor investigated \*(the kickback scandal).

<sup>1</sup> Abbreviations used in this paper are as follows: Acc: accusative, Asp: aspect, AV: Actor voice, Caus: causative, Excl: exclamative, Irr: irrealis, Gen: genitive, Lig: ligature, LV: locative voice, Neg: negator, Nmz: nominalizer, Nom: Nominative, P: plural, 1S: 1<sup>st</sup> person singular.

As shown in (2a-b), the object *the kickback scandal* is optional with the event noun *investigation* whereas it is obligatory with the source verb *investigate*. The asymmetry has led to a debate about whether event nouns have different argument structures from their source verbs (See Chomsky 1970, and Grimshaw 1990 for different positions on this issue).

Furthermore, it is also noted that event nouns can have interpretations distinct from the sentences containing their source verbs. For example:

- (3) a. Mary noticed John's performance of the song.  
 b. Mary noticed that John performed the song.

At first sight, sentence (3a) seems to be a paraphrase of sentence (3b). However, a closer inspection shows that the two sentences are not synonymous. Sentence (3b) can be uttered in a situation in which Mary did not notice John's performance but she might notice something from which she could infer that John performed the song. However, the same situation does not hold of sentence (3a). Sentence (3a) holds true only if Mary had a direct perception of John's performance. In view of the asymmetry, Zucchi (1993) distinguishes events from propositions and argues that the two sentences at issue involve two different entities: in (3a), the derived nominal *John's performance of the song* denotes an event while in (3b), the sentence *that John performed the song* denotes a proposition. The event-proposition distinction is further evidenced by the co-occurrence facts shown below:

- (4) Zucchi (1993:21)  
 a. John's performance of the song was slow.  
 b. \*That John performed the song was slow.

As first noted by Vendler (1968), the derived nominal *John's performance of the song* can co-occur with the eventual predicate *slow* but the sentence containing the regular verb cannot, as illustrated in (4a-b). The contrast can be accounted for if the derived nominal is analyzed as denoting event but the source sentence as denoting proposition.

In addition to the external distinction mentioned above, it is also worth noting that nominalization can be classified into two major types: lexical nominalization and syntactic nominalization (Chomsky 1970). Syntactic nominalization generally refers to gerundive nominals, while lexical nominalization refers to derived nominals. They behave quite differently: gerundive nominals are productive, having a regular semantic relationship with their source verbs, and involve clausal structure; derived nominals, on the other hand, are less productive, having a less regular relationship with their source

verbs, and instead involve noun phrase structure. One more distinction may be made: in English, gerundive nominals are invariably suffixed with *-ing* while the suffixes of derived nominals are of various types, to name a few, *-ion* (as in *explanation*), *-ment* (as in *movement*), *-al* (as in *arrival*), *-ture* (as in *departure*), etc.

As noted by Comrie and Thompson (1985), lexical nominalization gives rise to two major categories of nominals: the derived nouns may either be the name of an activity/state designated by the verb/adjective (e.g., *creation* and *quietness*), or may represent the name of one of their arguments (e.g., *writer* representing the agent, *cooker* representing the instrument).

To summarize, previous research has made the following generalizations about nominalization:

- (A) A derived nominal can differ from its source verb in morphological marking, syntactic behavior, or semantic interpretation;
- (B) Nominalization gives rise either to the name of an activity/state designated by the verb/adjective or to the name of one of its arguments;
- (C) Nominalization can be lexical or syntactic.

These generalizations will guide our investigation into the syntax and semantics of nominalization in Kavalan. We shall consider generalization (A) in section 2, when we distinguish nominalization from headless relativization. Also in section 2, we shall show that the name of action and the name of state are differentiated morphologically in Kavalan (generalization B). In section 3, we shall take up the third generalization by demonstrating how the name of an argument is derived and by checking whether the lexical-syntactic distinction of nominalization is attested in Kavalan. In section 4, we shall address typological and theoretical implications of our study and reach a conclusion.

## 2. Nominalization vs. relativization

In this section, we shall distinguish nominalization from headless relativization in Kavalan. In fact, the nominalization-relativization distinction is grammatically and semantically/pragmatically well-motivated.

In the Kavalan literature, elements which bear enclitic =*ay* and suffixed *-an* are both claimed to involve nominalization (Liu 1995, Hsin 1996, among others). Hsin (1996) specifically identifies enclitic =*ay* as a syntactic nominalizer and suffixed *-an* as a morphological nominalizer. In the same vein, Li (1997:93) and Lee (1997) also identify enclitic =*ay* as a nominalizer. However, as will be shown below, while it is true

that suffixed *-an* behaves as a nominalizer, enclitic *=ay* functions as a complementizer instead.

At first sight, elements accompanying enclitic *=ay* behave like a common noun phrase, and seemingly involve nominalization. For example:

(5) Li (1997:93-94)

- a. *yau tanian muRing=ay sunis 'nay*  
     be where cry child that  
     ‘Where is that child who cried.’
- b. *siqulus tu tbaRi'=ay suani-ku*  
     wear Acc red sibling-my  
     ‘My sister wears red clothes.’

In (5a-b), *muRingay* and *tbaRi'ay* along with their nouns behave like common noun phrases, which function as subject and object of their respective predicates. It appears as if they have undergone nominalization, and thus enclitic *=ay* can be said to serve as a nominalizer. However, closer inspection shows this not to be the case. First, it should be noted that enclitic *=ay* or *'ay* has a wider range of distribution than expected. In addition to occurring with verbs/adjectives, as in (5a-b), it can also be attached to hosts such as interrogative pronouns (6a), possessive pronouns (6b), numerals (6c), quantifiers (6d), etc., as shown below:

- (6) a. *tiana='ay sunis Rubatang*  
       who child beautiful  
       ‘Whose child is (more) beautiful?’
- b. *zaku='ay sunis zau*  
       mine child this  
       ‘This is my child.’
- c. *pmukun=ti aizipna tu kinturu='ay sunis*  
       hit=Asp he Acc three child  
       ‘He hit three children.’
- d. *pmukun=ti abas tu mwaza='ay wasu*  
       hit=Asp Abas Acc many dog  
       ‘Abas hit many dogs.’

These hosts are usually classified as functional categories. They involve neither action nor state. Consequently, they cannot serve as source elements for nominalization. It would be pointless to say that an interrogative pronoun such as *tiana* ‘who’ in (6a) has

undergone nominalization. The co-occurrence of =*ay* with the functional words poses serious problems for the analysis of =*ay* as a nominalizer.

Nor, in the strict sense, does enclitic =*ay* count as a nominalizer. Note that the host to which it attaches can take object noun phrases, just like an ordinary verb. For example:

(7) Li (1997:94)

- a. pukunan-ku qman=*ay* tu qawpiR sunis 'nay  
 beat-1S.Gen eat Acc sweet potato child that  
 'The child who ate sweet potatoes was beaten by me.'
- b. punti tama-ku paqan tu mringi=*ay* tu repaw wasu  
 finish father-1S.Gen feed Acc look after Acc house dog  
 'My father has finished feeding the dog that looks after our house.'

As shown in (7a-b), the verbs supporting =*ay* can take *qawpiR* and *repaw* as their complements. This suggests that they have not undergone nominalization. Nor can they be identified as gerundive nominals, because clauses containing them function as modifiers rather than arguments. They are more likely to remain full-fledged verbs with enclitic =*ay*. This being the case, then enclitic =*ay* cannot be treated as a nominalizer. Two questions then arise: First of all, what is it? And secondly, what is its function?

To answer these questions, let us consider the relationship between the elements hosting enclitic =*ay* and the nouns following them. One conclusion we can make from the data above is this: elements hosting enclitic =*ay* function as modifier, and nouns following them as modified. Thus, the function of enclitic =*ay* seems to be to turn its host into a modifier. Hsin (1996) and Li (1997) note that enclitic =*ay* can be attached to a verb phrase as well. For example:

- (8) a. punti tama-ku paqan tu [<sub>VP</sub> mringi tu repaw]=*ay* wasu (cf.7b)  
 finish father-1S.Gen feed Acc look.after Acc house dog  
 'My father has finished feeding the dog that looks after our house.'
- b. [<sub>VP</sub> ni-Rasa'an ni abas]=*ay* Raq 'nay  
 Asp-buy Gen Abas wine that  
 'the wine that Abas bought'

As shown in (8a-b), =*ay* seems to attach to an entire verb phrase, rather than to a single verb. In this way, it turns the verb phrase into a modifying phrase. In other words, the enclitic's scope of modification can be phrasal. In the generative tradition, in which empty categories are postulated, the verb phrase hosting the enclitic can be analyzed as a clause with an argument missing from it, and the missing argument must be

co-referential with the head noun. Pursuing this line of thought, the phrase structure of sentence (8a) could be represented roughly as follows, leaving out irrelevant details:

- (9) [s mringi e<sub>i</sub> tu repaw]=ay wasu<sub>i</sub>  
           look after           Acc house           dog  
           ‘the dog that looks after our house’

This is reminiscent of the structure of relative clauses: the modifying clause serves as a relative clause and the noun following it serves as the head noun.<sup>2</sup> If this is the case, enclitic =*ay* may serve as a complementizer on a par with the English complementizer *that*.

In the present analysis, a numeral patterning with the enclitic should occur as predicate rather than as modifier in the relative clause. The structure of the numeral phrases in (6c) can be roughly represented as follows:

- (10) [s kinturu=*'ay* e<sub>i</sub>] sunis<sub>i</sub>  
           three                   child  
           ‘three children.’

As shown in (10), the numeral *kinturu* serves as the predicate of an empty subject in the relative clause, and the empty subject is co-referential with the head noun *sunis*. In other words, the meaning ‘three children’ would be grammatically represented in Kavalan as ‘the children that are three in number’. This is a welcome analysis though, since “numerals as a matrix predicate” is a well-known recurrent pattern in Formosan languages (see Chang et al. 1998, Tang et al. 1998, for details).

So far, we have shown that in Kavalan, relativization should be distinguished from nominalization in terms of its morphological markings, syntactic distribution, and semantic/pragmatic function. The semantic/pragmatic function of relativization is to create a modifier, whereas that of nominalization is to generate an argument. Also, they may have different morphological markings and distinct distributions. In Kavalan, relativization is marked by the enclitic =*ay* and nominalization by the suffix *-an*; enclitic =*ay* serves as a complementizer and turns its host into a modifier, while suffixed *-an* turns its host into an argument (to be shown in the next section); a verbs in a relative clause may take an object noun phrase as its complement, while a verb that undergoes nominalization cannot. These contrasts are summarized in the following table:

<sup>2</sup> Kavalan has another type of relative clause formation without recourse to enclitic =*ay*. But that is not our concern here. Readers are referred to Li (1997) and Chang et al. (1998) for further information.

Table 1: Relativization vs. nominalization in Kavalan

	Relativization	Nominalization
Morphological marking	= <i>ay</i> (enclitic)	- <i>an</i> (suffix)
Syntactic distribution (Can the affected verb take an object noun phrase as its complement?)	Yes	No
Semantic/pragmatic function	Modifier	Argument

The Kavalan data further indicate that it is not sufficient simply to define nominalization in terms of function. The function of an element may be an indication of something, but this cannot be treated as the only criterion for the identification of its derivational status. Otherwise, any complex noun phrase containing a relative clause will be wrongly taken as involving nominalization, on grounds that it can function as subject or object. This is obviously not the way it should be analyzed.

### 3. Nominalization

As noted in the introduction, nominalization can be either lexical or syntactic. Lexical nominalization yields two types of nominal: action/state nominals vs. argument nominals. This section will provide a detailed discussion of the various types of nominalization in Kavalan.

#### 3.1 Action-state distinction

In Kavalan, action nouns and state nouns take different morphological markings when they undergo nominalization: the former are marked with the suffix *-an*, and the latter with the prefix *qena-*. Compare:

- (11) a. nengi    sanu-an            na    sunis    a    yau  
           good    educate-Nmz    Gen    child    Lig    that  
           ‘That child’s education is good.’  
       b. qa-sianem=iku    tu    kerawkaway-an-ku  
           think=1S.Nom    Acc    work-Nmz-1S.Gen  
           ‘I am thinking/worrying about my work.’



- (12) a. m-rizaq=iku      qena-lilumen-na  
 AV-like=1S.Nom      Nmz-honest-3S.Gen  
 ‘I like his honesty.’  
 b. maytis      tu      qena-subunga-na  
 fear      Acc      Nmz-lonely-3S.Gen  
 ‘He fears loneliness.’

The action nouns *sauan* ‘education’ and *kerawkawayan* ‘work’ are suffixed with *-an*, as shown in (11), while the state nouns *qenarilumen* ‘honesty’ and *qenasubunga* ‘loneliness’ are prefixed with *qena-*. Furthermore, some state nouns may take suffixed *-an*. For example:

- (13) a. mai      utani      qena-sianem-an-na  
 Neg      much      Nmz-learn-Nmz-3S.Gen  
 ‘His knowledge is not much.’  
 b. mai      tu      qena-siqal-an      razat      a      yau  
 Neg      Acc      Nmz-polite-Nmz      person      Lig      that  
 ‘That person has no politeness/shame.’

As a first approximation, we can segment the affixal complex *qena-* as *q-en-a*, where the prefix *qa-* serves as a marker for state predicates and the infix *-en-* occurs as a nominalizer or part of the nominalizing complex *-en-...-an*. This segmentation is not merely speculative. First of all, according to Li (1982), proto-Austronesian *\*k* evolved into Kavalan *q* before the mid-central vowel *e* (representing a weakened schwa). For example, proto-Austronesian *ka'en* ‘to eat’ is realized as *qeman* in Kavalan. Secondly, in Formosan it is widely observed that state predicates are differentiated from action predicates by adding the prefix *ka-* (as will be shown shortly). On the basis of these two facts, we suggest: 1) that the prefix *qa-* should be used to mark state predicates in Kavalan, as its counterpart *ka-* does in other Formosan languages; and 2) the infix *-en-* can occur as a nominalizer in Kavalan. Consider the following:

- (14) mai      tu      q-en-aytis-an  
 Neg      Acc      fear-Nmz-Nmz  
 ‘He/She has no fear.’

Here the infix *-en-* participates in nominalizing the state predicate (‘fear’). Actually, this infixed *-en-* be a reflex of the aspectual infix *-in-*, widely attested as a regular nominalizer in many Formosan languages, particularly in Paiwanic and Atayalic. Compare:

(15) Saisiyat (Yeh 2000c:56)

- a. k-in-aat  
write-Asp  
'book, letter'
- b. '-in-omaS  
-pickle-Asp  
'pickled vegetable'

(16) Mayrinax Atayal (Huang 2000:58)

- a. k-in-amil-an  
scratch-Asp-LV  
'the part which has been scratched'
- b. k-in-ac-an  
bite-Asp-LV  
'the part which has been bitten'

The Seediq aspectual infix *-un-* (perhaps a neutralized variant of the infix *-in-*) can also function as a nominalizer. For example:

(17) Seediq (Chang 2000a:58)

- a. p-un-berih  
spit-Asp  
'sputum'
- b. s-un-kurungan  
pickle-Asp  
'pickle'

All this cross-linguistic evidence provides strong support for our analysis of *qena-* as *qa-* plus *-en-* in Kavalan.<sup>3</sup>

Among many Formosan languages, state predicates must take an additional prefix in certain grammatical processes; action predicates do not have such a requirement. However, the function of the additional prefix varies across languages. In Rukai, for instance, the action-state distinction is made and *ka-* is additionally prefixed to turn a state predicate into an inchoative. As Li (1973) and Yeh (2000b) put it, *ka-* functions as

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<sup>3</sup> However, it should be noted that unlike the aspectual infix *-in-*, which is usually used to mark action predicates in other Formosan languages, the Kavalan infix *-en-* is used only for state predicates. We do not know exactly why this variation arose, but we believe that the aspectual function of infixed *-in-* has been taken over by enclitic *=ti* in Kavalan, leaving the infix for the sole purpose of nominalizing state predicates.

an inchoativizer. Consider these two sentences:

(18) Tanan Rukai (Li 1973:215-218)

- a. haw'a, ka-Daw-a ka acilay!  
 Excl. get big water  
 'May the water get big!'
- b. idi-a!  
 'Stand up!'

Due to an inherent semantic requirement, an imperative must pattern with a predicate that involves a change of state. It follows that a state predicate (expressing a stable property, such as *Daw* 'big' in (18a) above) must take on an additional inchoative prefix to qualify for the imperative formation. By contrast, an action predicate denotes change of state inherently and can participate freely in an imperative construction. Accordingly, the action predicate *idi* 'stand up' in (18b) does not take on the inchoative prefix *ka-*.

Similar derivations have also been observed in causative constructions throughout Formosan. As noted by Yeh (2000b), state predicates have to undergo inchoativization when they occur in causative constructions in Saisiyat, but such a requirement is not imposed on action predicates. Compare:

(19) Saisiyat (Yeh 1991:68)

- a. 'oya' pa-si'ael ka korkoring ka pazay  
 mother Cau-eat Acc child Acc rice  
 'The mother caused her child to eat rice.'
- b. So'o pa-k-sobaLeh switi'; yako 'okik bazae'  
 you Cau-Inch-big a little I Neg hear  
 'Please speak a little louder; I cannot hear you.'

The action predicate (*si'ael* 'eat') in (19a) simply takes on a causative prefix (*pa-*). In (19b) by contrast, the state predicate (*sobaLeh* 'big') must take on the extra inchoative prefix (*k-*), and the causative prefix as well. A similar distinction is attested in Paiwan. As noted by H.-C. Chang (1992), unlike action predicates, state predicates are required to take *pa-ka-* (instead of *pa-*) when they undergo causativization. For example:

(20) Paiwan (Chang 1992:34-35)

- a. pa-ka-tjenelay ti palang tjay kalalu tjay cemedas  
 Cau-Inch-like Nom Palang Acc Kalalu Acc Cemedas  
 'Palang caused Kalalu to like Cemedas.'

- b. \*pa-tjenelay      ti      palang      tjay      kalalu      tjay      cemedas  
          Cau-like            Nom      Palang      Acc      Kalalu      Acc      Cemedas

It should be pointed out, however, that the additional prefix may not always serve as inchoativizer. In Saisiyat, for instance, the action-state distinction is made in negations, but the distinction does not seem to be semantically motivated.<sup>4</sup> Compare:

(21) Saisiyat (Yeh 2000a:112-113)

- a. 'oya'      Somebet      ka      korkoring  
          mother   beat            Acc   child  
          'The mother beat her child.'
- b. 'oya'      'okay'      Somebet      ka      korkoring  
          mother   Neg      beat            Acc   child  
          'The mother did not beat her child.'

(22) Saisiyat (Yeh 2000a:112)

- a. sia      sarara'      yakin  
          she   like            me  
          'She likes me.'
- b. sia      'okik'      sarara'      yakin  
          she   Neg      like            me  
          'She does not like me.'

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<sup>4</sup> Meanwhile, a slightly different case has been observed in Seediq. As noted by Chen (1996) and Chang (2000a), an adjective is required to take on the additional prefix *ku-* when it patterns with the negator *ini*, while no such requirement is imposed on predicates other than adjectives. Compare:

(i) Seediq (Chang 2000a:112-113)

- a. ini      ku-naqah  
          Neg   bad  
          'He is not bad.'
- b. ini      kela  
          Neg   know  
          'He did not know.'
- c. ini      ekan  
          Neg   eat  
          'He did not eat.'

As shown in (ia), the adjective *naqah* 'bad' must take the prefix *ku-*. However, as shown in (ib-c), neither the state predicate *kela* 'know' nor the action predicate *ekan* 'eat' need the prefix. It seems that unlike other Formosan languages, Seediq employs the prefix to distinguish adjectives from non-adjectives, rather than state predicates from action predicates.

As noted by Yeh (1991), state predicates and action predicates pattern with different negators in Saisiyat: the state predicate *sarara* ‘like’ patterns with the negator *'okik*, but the action predicate *Somebet* ‘beat’ takes the negator *'okay*, as shown in (21-22). The action negator *'okay* and the state negator *'okik* may be analyzed as sharing the negative root *'okai*, with the state negator segmented as *'oki-k* (dropping the vowel *a* as the *k*-affixation occurs). Note, however, that in this case the additional morpheme *k* does not seem to function as an inchoativizer. Unlike imperatives and causatives, negatives have no intrinsic property that requires the inchoativization of state predicates. The state-action distinction in Saisiyat negative constructions seems to be due to grammatical rather than semantic causes. In other words, the prefix *k-* on the negator *'okik* is very likely to be a grammatical marker.

Likewise, the state-action distinction made in nominalization is also unlikely to be semantically motivated. Note that state predicates (stable state predicates in particular) are ontologically closer to nouns and are hence more likely to occur as nouns. This is widely exemplified cross-linguistically. In Chinese, for example, stable state predicates are more likely to undergo nominalization than their process counterparts (Tsai 1999 and L.-L. Chang et al. 1999). Compare the following Mandarin example:

(23) Mandarin Chinese (Tsai 1999:440)

- a. ren    dou    you    zhuiqiu    kuaile    de    benneng  
 people all    have    pursue    happiness    DE    instinct  
 ‘Everyone has the instinct of pursuing his happiness.’
- b. \*ren    dou    you    zhuiqiu    gaoxing    de    benneng  
 people all    have    pursue    gladness    DE    instinct  
 ‘Everyone has the instinct of pursuing his gladness.’

Here the stable state predicate *kuaile* ‘happy’ can freely occur as an object noun phrase, but the temporary state predicate *gaoxing* ‘glad’ cannot undergo nominalization.

A similar distinction is also attested in Tsou nominalization. As suggested by Y.-Y. Chang (2000), Tsou temporal state predicates can freely occur as arguments, but process/action predicates cannot do so without the accompanying nominalizer *hia*:

(24) Tsou (Y.-Y Chang 2000)

- a. mo    notaico    'e    ~~cohmn~~-si    to    suika  
 AV    central    Nom    sweet-3S    Obl    watermelon  
 ‘The sweet portion of the watermelon is in the central part.’
- b. mo    ~~amnt~~    ~~amnt~~    'o    \*(hia-si)    ~~cocavo~~    to    pasuya  
 AV    really    good    Nom    HIA-3S    laugh    Obl    Pasuya  
 ‘The manner of Pasuya’s laughing is really good.’

It is further noted that the state-action distinction is structure-sensitive in Kavalan: it is attested in nominalization, but not in other grammatical processes such as causativization:

(25) Causativization in Kavalan (Shi:2, 16)

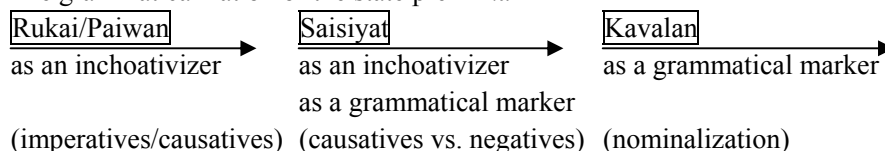
- a. pa-uRing ya wasu tu sunis  
 Cau-cry Nom dog Acc child  
 ‘The dog made the child cry.’
- b. pa-misian ni tina ti abas  
 Cau-fat Gen mother Nom Abas  
 ‘Mother made Abas become fat’

As shown in (25b), state predicates such as *misian* ‘fat’ do not take the additional prefix *qa-* when they undergo causativization.

Overall, the state-action distinction that is made by means of prefixing *qa-* to state predicates seems to be very limited in Kavalan. On the other hand, the state prefix *qa-* in Kavalan simply seems to function as a grammatical marker rather than as an inchoativizer.

To summarize, among Formosan languages, the state prefix *ka-* or *qa-* may have diverse functions in a variety of constructions. In Rukai and Paiwan, it may function as an inchoativizer and turn a state predicate into an inchoative predicate in imperative and causative constructions. In Saisiyat, it has dual functions: as an inchoativizer, as in causative constructions, and as a grammatical marker, as in negative constructions. In Kavalan, it may simply occur as a grammatical marker, i.e., devoid of any semantic import. As noted by Yeh (2000b), the evolution from inchoativizer to grammatical marker may represent the grammaticalization of the prefix. The different stages in the development of the prefix can be represented by its reflexes in different languages, as schematized below:<sup>5</sup>

(26) The grammaticalization of the state prefix *ka-*



<sup>5</sup> For a different analysis of the prefix *ka-*, see Zeitoun and Huang (2000), where *ka-* is analyzed as a stative prefix for nonfinite verbs.

### 3.2 The name of arguments and gerunds

In Kavalan, an agentive noun is formed by attaching the affixal complex *pa-...-an* to a source verb:

- (27) a. babaran    na    pa-Ribaut-an    sunis    a    yau  
          hit        Gen   Nmz-to fish-Nmz   child   Lig   that  
          ‘The child was hit by the fisher.’  
       b. mazmum    pa-taqsi-an-ku  
          many       Nmz-study-Nmz-1S.Gen  
          ‘My students are many (in number).’  
       c. nengi    pa-zazas-an        na    lamu  
          good    Nmz-lead-Nmz    Gen   village  
          ‘The village leader is good.’  
       d. tmingaR=iku    tu    pa-kerawkaway-an  
          hire=1S.Nom    Acc   Nmz-work-Nmz  
          ‘I hire a worker.’

In (27a), the meaning ‘fisherman’ is grammatically represented as *paRibautan*, where the source verb *Ribaut* means ‘to fish’ and the affixal complex *pa-...-an* turns the source verb into an agentive noun. The affixal complex *pa-...-an* is similar in function to the English agentive suffixes *-er* or *-or*. A like explanation holds also for sentences (27b-d).

In Kavalan, patient nouns and location nouns are suffixed with *-an*:

- (28) Chang (2000b:58)  
       a. mai=ti        tu        qan-an  
          Neg=Asp    Acc    eat-Nmz  
          ‘There is no food left.’  
       b. yau    uzis-an        muzis  
          is    bathe-Nmz    bathe  
          ‘He is bathing in the bathroom.’

The nominalizing suffix *-an* is rather common in Kavalan; and a Kavalan gerund also bears a suffixed *-an*:

- (29) a. qaqaytisan    zaqis-an-na                      tu            paRin  
                  dangerous    climb-Nmz-3S.Gen    Acc           tree  
                  ‘His climbing tree is dangerous.’  
       b. nengi    taitaen    sarekiaw-an-na  
                  good    looking    dance-Nmz-3S.Gen  
                  ‘Her dancing is beautiful.’  
       c. nengi    ipiran    satezay-an-na  
                  good    listen    sing-Nmz-3S.Gen  
                  ‘Her singing is sweet.’

In (29a-c), the gerunds *zaqisan*, *sarekiwan*, and *satezayan* all include the nominalizer *-an*.

Note that the common nominalizer *-an* is homophonous with the patient/locative voice suffix *-an* and that the two cannot be confused. For instance, the suffix *-an* in (29a) cannot be identified as a locative voice suffix on the grounds that they have different denotations: the phrase *zaqisanna tu paRin* denotes an action rather than a location. It follows that sentence (29a) means ‘His climbing tree is dangerous’ rather than ‘The place where he climbs tree is dangerous’. Likewise, the nominalizing suffix *-an* with event nouns cannot be equated with the voice suffix. For example:

- (30) nengi    sanu-an                      na            sunis            a            yau    (same as (11a))  
                  good    educate-Nmz    Gen    child            Lig            that  
                  ‘That child’s education is good.’

In (30), what is of concern is the education, rather than the individual who gets educated or the place where the education takes place. It is clear that suffixed *-an* simply functions as a nominalizer in this case.

#### 4. Conclusion

In this paper, we have shown that the nominalization-relativization distinction is not trivial. Kavalan provides a good test case. In Kavalan, nominalization and headless relativization are grammatically and semantically distinct from each other. Nominalization can be marked with the suffix *-an* and relativization is marked with the enclitic *=ay*; the affected verbs in nominalization cannot take accusative noun phrases as their complements, but verbs in relativization can; nominalization turns its hosts into arguments, while relativization turns them into modifiers. The Kavalan evidence also indicates that a functional definition of nominalization is inadequate.



In Kavalan, the state-action distinction is attested in nominalization. However, the distinction is formal rather than semantic; i.e., there is no semantic motivation. Unlike its counterpart in Rukai and Paiwan, the state prefix *qa-* has been grammaticalized in Kavalan.

The distinction between lexical nominalization and syntactic nominalization is not morphologically realized in Kavalan. In Kavalan, the nominalizer *-an* is dominant: it occurs both on both derived nominals and on gerundive nominals.

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## 噶瑪蘭語的名物化現象

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本文主要是在探討噶瑪蘭語名物化的構詞、句法和語意。我們的研究發現，傳統所謂的名物化其中有一類其實不是真正的名物化，而是不帶主要語的關係子句。真正的名物化和不帶主要語的關係子句不論在構詞、句法和語意上都很有區別：前者由後綴 *-an* 標示、後者則由寄生詞 *=ay* 標記；前者不可以和直接賓語搭配、後者則可以；前者的語意角色為論元、後者則是修飾語。同時，我們也發現，動態動詞和靜態動詞的名物化標記不同，前者由後綴 *-an* 標記，後者則主要由前綴 *qena-* 標記。前綴 *qena-* 事實上是由前綴 *qa-* 加上中綴 *-en-* 所組成，其中 *qa-* 相當於其他台灣南島語靜態動詞常見的前綴 *ka-*，而 *-en-* 則相當於動貌標記 *-in-*。值得注意的是，在許多台灣南島語，前綴 *ka-* 為起動標記，有清楚的詞彙意義，但是噶瑪蘭語的 *qa-* 則純粹只是一個語法標記。從這點可以看得出來，靜態動詞的前綴已經開始逐步語法化了。另外，我們也觀察到詞彙層次的名物化和句法層次的名物化（例如英語的動名詞）在噶瑪蘭語的構詞上並沒有差別，都是用後綴 *-an* 標記。

關鍵詞：名物化，關係子句，名物化後綴，補語連詞，靜態動詞，動態動詞，起動前綴，語法標記，詞彙名物化，句法名物化