The Undergoer Focus *Ma-* in Kavalan[*]

Shuping Huang   Li-May Sung

f90142008@ntu.edu.tw   limay@ntu.edu.tw

Gradaaute Institute of Linguistics, National Taiwan University

ABSTRACT

This study aims to explore the functions and grammatical status of Kavalan preverbal affix *ma-*.   In addition to agent, locative/patient, and instrument/benefactive focuses, Kavalan *ma-* seems to be a marker that also marks some kind of sentential focus.   We found that this marker behaves much like AF in terms of its grammatical behaviour, and it is used in two scenarios: 1) spontaneous events: when the event is conceived as happing spontaneous without an extraneous causer, and 2) middle passive events: when the patient is the focus and the agent is conceived as insignificant.   In some limited cases of naturally collective/reciprocal events, we also found *ma-* prefixed to the verbs.   This marker will be termed as "undergoer focus" in the present study since the clause subject is considered a spontaneously affected role.   The marker *ma-* is, according to Evans and Ross (2001), a generalized pattern commonly found in Oceanic languages, with some variants cross-linguistically.   In other Formosan languages, such as Paiwan and Amis, we also find similar markers with different manifestations as compared to Kavalan.

The Undergoer Focus *Ma-* in Kavalan

1. Introduction

This study aims to explore the focus system in Kavalan with particular emphasis on a prefix *ma-*. Focus system is an important linguistic issue specific to the Austronesian language family (Ho and Yang 2000), and its studies often invite thinking in terms of language typology and historical linguistics. The term "focus" is sometimes used exchangeably with "voice",[1] but recent linguists have attempted to argue that the so-called "focus" or "voice" in Austronesian languages are not identical to the conceptions that have been used in Indo-European linguistic studies (Himmelmann 2002, Ross and Teng 2004). Further progress of language typology would require the articulation of this linguistic parameter in Austronesain language group, but it is beyond the scope of this study. We will simply call them "focus" or "voice", which refers to a set of verbal morphology that signals the semantic role of the grammatical subject in a clause.

Generally, Formosan languages have four focuses: agentive, patientive, instrumental/benefactive, and locative. However, the focus system is differently manifested in each Formosan linguistic branch. In previous studies, Kavalan is identified to have three major focus markings: agent, patient, and instrument, respectively marked by affixes *m-/-em-*, *-an*, and *te-* (Li 1997, Chang 1996, Lee 1997).[2] However, the instrument focus rarely appears both in our elicitation and narrations, and speakers often use agent focus to replace it, which renders dichotomous AF/NAF focus marking in modern Kavalan.

In spite of the classification made by Chang (1996), Li (1997) and Lee (1997), we found another affix that seems to mark a kind of sentential voice. This mystifying marker is verbal prefix *ma-*. In the narrative and conversational texts, we have some tokens with *ma-* marking as illustrated in Table 1. Those tokens feature in two aspects. First, the affix *ma-* occupies the syntactic position originally saved for agent and instrument voice marking. Second, though the verbs attached by *ma-* are intrinsically transitive, the semantic agent does not appear, and the only argument is

---

[1] Terms like "case", "topicalisation", "theme", "recentralisation", and "trigger", all refer to the same morpho-syntactic device commonly known as "voice" and "focus" (Blust 2002). Ross and Teng (2004) regard focus markers as transitive markers; agent focus refers to intransitive events, whereas non-agent focus markers refer to transitive events.

[2] Kavalan focus marker *–an* is the locative focus general to Formosan languages. The patientive and locative focus in Kavalan has been merged as one. In fact, we find Kavalan frequently use locative and patientive arguments interchangeably, showing the split-O in Kavalan. In the rest of this study, *-an* would be glossed as LF. In the rest of this study, *-an* would be glossed as LF.

        a) pa-qazin=iku   ti   utay / ti-utay-an
           Cau-tell-1S.Nom Ncm   Utay/ Loc-Utay-Loc
           "I recognized Utay."

the affected role, i.e., the semantic patient. [3]

(1)

(a) …(1.1)   **ma-belung**   peRasku   'nay, _
              MA-break   bottle   that

  "The bottle breaks,…" (frog_buya: IU 24)

(b) …(0.8)   yau **ma-ziut** ta-babaw-an   na paRin   a   yau   ya, \
              Exist MA-hang Loc-above-Loc Gen tree   Link that Nom

  "There was something hung on the tree." (frog_imui: IU 52)

(c) …   **ma-qawit=ti**   ta-butuq-an.__
          MA-stuck=Pfv   Loc-bottle-Loc

          (The dog's head) is stuck inside the bottle. (frog_syulan: IU 20)

(d)   ta-qena-repaw-an-na   qani-isaku   tayan   kwa
         Loc-place_once_inhabited-Loc-3rdGen qani-PN   there   Interj.

         ta-qawRay-an   nani
         Loc-place.near.sea-Loc   DM

         ma-qayta ya   betu   a   yau   Raya-ay
         MA-see   Interj. stone Lig. that   big-Rel

  "(It) turned toward the front of the house where Isaku once lived, toward the
  place near the sea. And saw that the stone was big." (conv_abas.Raciang:
  IU51-52)

In Lee (1997), *ma-* is classified as a "realis agent-focus marker", and the agent is
supposed to be realized as the grammatical subject.   However, we found in some
examples in which *ma-* can also take the semantic patient as the focused role, as in
(2a).   The first glance gives an impression that (2a) is similar to its LF counterpart in
(2b).   However, the more common form of *ma-*marked verbs is without the

---

[3] Another instance originally suspected to be *ma-* is found to be AF focus marked on the verb beginning
with *qa-*, and the *q-* will be dropped, rendering *m-a-* combination identical to *ma-*, as in (a). In
imperative constructions, the root shows the *q-* initial, as in (b).

   a) .. **m-asengat-ti**   ya= siRemuq 'nay wiya-ti   me-RaRiu.\
        AF-stand_up-Pfv   Nom deer   that leave-Pfv AF-run
      "The deer got up and ran away." (Frog_imui2, 65)

   b) **qasengat**=ka
      stand_up=imp
      "Stand up!" (Q-43)

Other examples like *m-atiw* 'go', *m-aseq* 'arrive', *m-aytis* 'be afraid', among many others, are also
found to be of the same pattern.   Their roots are respectively *qatiw*, *qaseq*, and *qaytis*.   In fact, Ross
(2002), pointed out that many Malayo-Polynesian verb roots beginning with *ka-* would become *ma-*
for its active voice (AF), derived historically from the combination of *-um-* (AF) + *ka-* (stative). We
are not sure whether *m-a-* is related to the *ma-* we are discussing in this paper, and whether this *q-* is
related to the stative marker common to Formosan languages (Zeitoun and Huang 2000), because
'come' and 'go' are not so stative.   In this paper, we do not include this type of *ma-* in our discussion.

agent –*na*, as shown in (2c).   In LF clauses, to omit the agent –*na* is not acceptable to Kavalan speakers, as shown in (2d).

(2)

(a)   ma-ziut-na   ya   taquq   'nay   ta-paRin-an
      MA-hang-3S.Gen   Nom   chicken   that   Loc-tree-Loc
      "He hung the chicken on the tree." (Q-111)

(b)   zuit-an-na   ya   taquq   'nay ta-paRin-an
      hang-LF-3S.Gen   Nom chicken   that Loc-tree-Loc
      "He hung the chicken on the tree." (Q-111)

(c)   ma-ziut   ya   taquq   'nay ta-paRin-an
      MA-hang   Nom chicken   that Loc-tree-Loc
      "That chicken hung on the tree."   (Q-111)

(d)   *ziut-an   ya   taquq   'nay   ta-paRin-an
       hang-LF   Nom   chicken   that   Loc-tree-Loc
      "That chicken hung on the tree."

Preliminary investigation shows that *ma-* occurs in the events commonly known as "middle" semantics defined by Kemmer (1993).   We thus developed a questionnaire that included the middle events mentioned in Kemmer (1993) to see the functional distribution of Kavalan *ma-* as compared to AF and LF.   In section 2, we will focus on the grammatical behavior of *ma-*.   Section 3 concerns the semantic functions of *ma-* and its generalized event scenarios.[4]   While carrying out the investigation, we are also aware of the fact that the marker *ma-* is found in many Oceanic languages marking some anti-causative, reflexes, or stative verbs (Evans and Ross 2001, Donohue 2004).   By their study, Evans and Ross lament the lack of Formosan data with regard to this marker.   A profound comparative study of Formosan languages is presently not possible, but we hope to be able to take the present study as an enterprise to show that Formosan languages as members of Austronesian family might also reflect developments of similar nature.

---

[4] The table below provides the background information of our three major informants (ordered according to data contribution).

Name	Gender	Age	Inhabit	Language proficiency
Imui	F	53	Banqiao, Taipei	Kavalan, Mandarin, Amis, Southern Min
Abas	F	74	Xinshe, Hualian	Kavalan, Mandarin, Amis, Southern Min
Buya	M	47	Banqiao, Taipei	Kavalan, Mandarin, Amis, Southern Min

2. Syntactic behaviour of Kavalan *ma-*

This section presents some descriptive data with regard to the syntactic behaviour of prefix *ma-*, mainly its co-occurrence with other focuses, and its interactions with tense aspect markers.

2.1. Co-occurrence with other voices

Kavalan *ma-* typically does not occur with other focuses.   Because we find very few verbs attached with I/BF, the test of co-occurrence restrictions is mainly by AF and LF verbs.   The results show that *ma-*, AF, and LF are in complementary distribution.   As (3) shows, *ma-* does not occur with AF.

(3)
(a)   ma-tepuq-na   aysu
        MA-hack-3Sg.Gen 2S.Nom
        "He hacked you." (040407-97)
(b) anian=isu   t-em-puq   timaizipana
        where-2S.Nom   AF-hack   3S.Acc
        "Where did you hack him?" (040407-101)
(c) *ma-t-em-puq   aysu/timaisu
        MA-hack-AF   2S.Nom/2S.Acc (040407-102)

Similarly, though *ma-* and LF both occur with *pa-tawa* (Cau-laugh) respectively, as in (4a) and (4b), their co-occurrence in the same sentence renders ungrammaticality, as in (4c).

(4)
(a)   ma-pa-tawa   na   'dak   ayku
        MA-Cau-laugh   Gen   other   1S.Nom
        "Others laughed at me." (Q-23)
(b)   pa-tawa-an-na   ayku   na   'dak
        Cau-laugh-LF-3S.Gen   1S.Nom   Gen other
        "Others laughed at me." (Q-23)
(c)   *ma-pa-taw-an-na   ayku   na   'dak
        MA-Cau-laugh-LF-3S.Gen   1S.Nom   Gen other   (Q-23)

2.2. Co-occurrence with TAMs (tense aspect markers)

Just like other focuses, *ma-* occurs with tense aspect markers (TAMs), but with some restrictions. To begin with, *ma-* verbs are frequently attached by perfective suffix *–ti*, as in (5).

(5) ma-qan=ti   baut   'nay
    MA-eat=Pfv   fish   that
    "That fish was eaten."   (040414-148)

However, like Kavalan AF sentences, verbs prefixed by *ma-* do not co-occur with future tense suffix *–pa*. As (6a) and (6b) show, future tense *–pa* occur in LF and Ø-marked sentence, but it dose not appear with AF and *ma-*marked sentences, as in (6c) and (6d). We know the problem comes from the co-occurrence of *ma-* and *–pa*, because *ma-* could indeed occur with the verb *qan* (eat) as in (6e).

(6)
(a) qan=pa=iku   tu   tiRuR
    eat=Fut=1S.Nom   Obl   egg
    "I want to eat eggs." (literally "I will eat eggs")   (Chang 2000: 120)
(b) qan-an-ku=pa   tiRuR   'nay
    eat-LF-1S.Gen=Fut   egg   that
    "I will eat the egg." (040604-24)
(c) *q-em-an=pa=iku   tu   tiRuR
    AF-eat=Fut=1S.Gen   Obl egg (Chang 2000: 120)
(d) *ma-qan-ku=pa   tiRuR   'nay
    MA-eat-1S.Gen=Pfv   egg   that (040604-26)
(e) ma-qan-ku   tiRuR   'nay
    MA-eat-1S.Gen   egg   that
    "I ate the egg."   (040604-25)

Kavalan has prefix *qa-* to indicate things that do not happen yet, which we will call "irrealis marker." [5] This marker refers to some root modalities such as ability, probability, and so on. As the examples below have shown, the Ø-marked verb *tanak* (separate, divide) occurs with *qa-* in (7a), and *ma-* in (7b). However, Kavalan does not allow *ma-* and *qa-* to be marked on the verb at the same time, as in (7c) and (7d). Lee (1997) reports that Kavalan AF also avoids co-occurring with *qa-*. In this

---

[5] In Huang and Sung (2005, NSC report), *qa-* is identified as an irrealis marker. This marker's function is similar to what Bybee et al. (1994) termed as "root modality," including future prediction, intention, and ability.

respect, *ma-* behaves like agent focus.

(7)

(a) qa-metmet=ti   byabas   'nay
    Irr-spoil-Pfv   guava   that
    "That guava will be spoiled." (20050610)

(b) ma-metmet=ti   byabas   'nay
    MA-spoil=Pfv   quava   that
    "That guava is spoiled." (20050610)

(c) *ma-qa-metmet=ti   byabas   'nay
    MA-Irr-spoil=Pfv   guava   that
    "The quava will be spoiled." (20050610)

(d) *qa-ma-metmet=Pfv   byabas   'nay
    Irr-MA-spoil=Pfv   guava   that
    "The guava will be spoiled."(20050610)

For progressive aspect, represented by *yau*, it seems to co-occur with AF, LF, and *ma*-marked verbs, as the examples below indicate.

(8)

(a) yau   p-em-ukun   ti   abas   tu sunis
    Prog   AF-hit   Ncm   Abas   Obl child
    "Abas was beating the child." (Chang 2000: 135)

(b) yau   pukun-an-na   sunis   'nay
    Prog   hit-LF-3S.Gen child   that
    "That child was being beaten by him." (Q-17)

(c) yau   ma-pukun   sunis   'nay
    Prog   MA-hit   child   that
    "That child was being beaten." (Q-17)

In Kavalan, reduplications are adopted to emphasize the repetition or continuation of an event. It is found to be employed in AF clause (9a), LF clause (9b), and also in the *ma-* clause, as in (9c).

(9)

(a) nayzi   ta-(nau-)-naung-an   me-ku-kuling   batu   'nay
    from   Loc-Red-Mont.-Loc   AF-Red-roll   stone   that
    "That stone kept rolling from the mountain." (Q-71)

7

(b) ta-tanuz-an-na   ni   buya   ci   utay

     Red-chase-LF-3S.Gen   Gen PN   NcmPN

     "Buya kept chasing Utay." (Q-16)

(c) nayzi   ta-(nau-)-naung-an   ma-ku-kuling   batu   'nay

     from   Loc-Red-Mont.-Loc   MA-Red-roll   stone   that

     "That stone kept rolling from the mountain." (Q-71)

As a summary, the table below shows the co-occurrence constraints of tense aspect markers with Kavalan focuses.   The table is adopted from Lee (1997), and we use this table to compare *ma-* with AF and LF markers.

Table 1. Focus marking and concurrence restrictions[6]

Focus ╲ TAM	AF		LF	Ma-
	Realis (m-)	Irrealis (Ø)		
-ti (perfective)	V	V	V	V
-pa (future)	X	V	V	X
qa- (irrealis)	X	V	X	X
yau (progressive)	V	V	V	V
Red. (iterative)	V	V	V	V

2.3. Other syntactic behavior

In the following examples, we will show that *ma-*, like AF and LF, freely occurs in negatives, interrogative, and topicalized sentences.

(10) Negative

(a)   mai ma-qibasi   qutus   'nay   bantu=ti

     Neg MA-wash   clothes that   smell=Pfv

     "That clothes was not washed and stunk." (Q-103)

(b)   mai   qibasi-an-ku   qutus   'nay bantu=ti

     Neg   wash-LF-1S.Gen   clothes   that stink=Pfv

     "That clothes was not washed by me, and stunk." (Q-103)

---

[6] This table is adopted from Lee (1997).   There is one counterexample found in our data as in (a), and another in Chang (2000) as in (b).

  a) me-lizaq   ci   abas tu   **qa-siklisiw-an-na**

    AF-like   Ncm Abas Obl   Irr(?)-have.money-LF-3S.Gen

    "Abas wishes/wished to be rich." (Q-12)

 b) **k\<em>irim=pa=iku**   ti-abuq-an

    \<AF>find=Fut=iS.Nom Loc-PN-Loc

    "I will go find Abuq." (Chang 2000: 93)

We would like to thank Professor Loren A. Billings for pointing out those counterexamples.   Further studies will be followed up to explicate the exceptions.

(11) Interrogative

    mana   bibiak-an/ ma-bibiak   pok   'nay

    why   scatter-LF/MA-scatter   peanut   that

    "Why did the peanuts scattered on the ground?" (Q-14) [7]

(12) Topicalised

    qanyau   pukun-an-na=iku/ ma-pukun-na=iku

    3P.Gen   beat-LF-3S.Gen=1S.Nom/ MA-beat-3S.Gen=1S.Nom

    "They were the persons (by whom) I was hit." (Q-17)

Also, in complex constructions, *ma-* behaves like an independent focus marking in embedded clauses and serial verb constructions. In serial verb constructions, the marking *ma-* has its meaning and cannot be freely omitted, as in (14).

(13) Serial verb

(a) ma-sapeziak-ku   peRasku 'nay   tu ma-bedung

    MA-step-1S.Gen   bottle   that   Obl MA-break

    "I stepped on the bottle and it broke." (050610)

(b) sapeziak-an-ku   tu ma-metmet   byabas   'nay

    step-LF-1S.Gen   Obl MA-spoil   guava   that

    "The guava was stepped by me and spoiled." (050610)

The independent meaning of *ma-* is also true in embedded clause. Whenever the meaning is applicable, *ma-* could occur in the matrix verb and/or the subordinate verb position as other focus markings. See (14).

(14) Complement

(a) tayta   ni   utay   ya   wasu   'nay ma-pukun=ti

    see   Gen Utay   Nom   dog   that MA-hit=Pfv

    "Utay saw that dog being beaten." (040604-1)

(b) tayta-an-ku   ya   wasu   'nay ma-pukun=ti

    see-LF-1S.Gen   Nom   dog   that   MA-hit=Pfv

    "I saw the dog being beaten." (040604-2)

(c) ma-tayta-ku   ya   wasu   'nay   ma-pukun=ti

    MA-see-1S.Gen   Nom   dog   that   MA-hit=Pfv

---

[7] In this example, LF is different from *ma-* in that the person who scattered the peanuts on the floor is contextually known by the speaker, in this case, the hearer. For *ma-*, the speaker only saw the peanuts scattered on the floor without knowing the doer.

"I saw the dog being beaten." (040604-3)

In Kavalan, nominalization is expressed by *ni*-V-*an*, as in (15a) and (16a). We cannot use *ma-* for nominalization in Kavalan. As in (15b), the event is rather understood as two separate actions in separate clauses, and in (16b) and (16c), the sentences are totally unacceptable.

(15) Nominalization
(a) ni-tanuz-an-ku   babuy   'nay   me-suRaw=ti
    NI-chase-AN-1S.Gen   pig   that   AF-fall=pfv
    "The pig I chased fell." (040604-4)
(b) ma-tanuz-ku   babuy   'nay   me-suRaw=ti
    MA-chase-1S.Gen   pig   that   AF-fall=pfv
    "I chased the pig and it fell." (040604-5)

(16) Nominalization
(a) sabiakbiak=ti zanum   'nay ni-Ramaz-an-ku
    boil=Pfv   water   that NI-cook-LF-1S.Gen
    "The water I heated was boiled." (Q-85)
(b) *sabiakbiak=ti zanum   'nay ni-ma-Ramaz-ku
    boil=Pfv   water   that NI-cook-LF-1S.Gen
    "The water I heated was boiled." (Q-85)
(c) *sabiakbiak=ti   zanum   'nay   ma-Ramaz-ku
    boil=Pfv   water   that   MA-cook-1S.Gen
    "The water I heated was boiled." (050610)

To summarize, *ma-* not only stands in the position saved for focus prefixes, but is also in complementary distribution with other focus markings. Moreover, its syntactic behavior is identical to other voice markings, co-occurring with tense-aspectual markers when semantically compatible. Those features make *ma-* appear as an independent focus marking as opposed to AF and LF in Kavalan. In Lee (1997), *ma-* is classified as a "realis agent-focus marker." In fact, *ma-* does have identical co-occurrence restrictions with AF. Recall Table 1. The prefix *ma-* occurs in the same TAM restrictions as AF marker *–um-* or *m-*. However, in the following sections, we will show that the problem is not so straightforward when we take into consideration the semantics of *ma-*.

3. Semantics: Kavalan *ma-* as undergoer focus

Based on the questionnaire we have designed, this section presents the data that shows the semantic functions of prefix *ma-* as compared to AF and LF in Kavalan. We found that Kavalan ma- is primarily found in three kinds of events: 1) spontaneous events, 2) middle passive events (anti-causative), and 3) some highly lexical-specific naturally collective/reciprocal events.

3.1. Spontaneous events

Spontaneous events are also known as "inchoatives" or "neuter verbs" (Kleiman 1992).   According to Kemmer (1993: 142), spontaneous event "designates change of state of an entity, but in which no Agent entity receives coding."   Events of this type are perceived as occurring spontaneously without an initiator.   For animate beings, such events could be physiological process such as rotting, ripening, withering etc. For inanimate beings, physiochemistry events are included, such as exploding, bursting, freezing, melting, etc (Kemmer 1993).   Spontaneous changes of shape, color, size and so on are also included.   Since the Initiator (Agent) receives no saliency of conceptualization, the entity that undergoing this change is typically the subject of the verb.

This kind of event has a salient preference to take *ma-* as the prior verbal marking, as in (17), (18) and (19).   The sentences involve only one role, which undergoes the change, typically involuntarily.   Note that AF clauses can be used to denote the event without changing the meaning, as in (17).

(17) yau   usiaq   bawa   'nay ma-linemnem=ti/me-linemnem=ti
     exist   one   ship   that MA-sink=Pfv/AF-sink=Pfv
     "That ship sank." (Q-75)
(18) (ma-)buqzya=ti   sisiu/tiRuR   'nay
     MA-hatch=Pfv   chick/egg   that
     "The egg hatched." (Q-81)
(19) ma-Rabu=ti   gumu   'nay
     MA-break=Pfv   rubber   that
     "The robber bend broke." (Q-83)

If we use LF clause, the agent has to be overtly identified.   In other words, the LF clause is not a spontaneous event.   For example, in (20b), the agent –*ku* cannot be omitted.   Besides, LF marked sentences have higher degree of transitivity.   The action is punctual, with high volition, high individuation of argument roles, and

apparent causative sense, as we can see in (20b) and (21b).   When we use *ma-*, it implies that the action happens with natural force.   For example, (20a) is used when the wind blew the cloth and by accident covered the basket.   Similarly, (21a) implies that the chicken died in the fields and rot naturally.

(20)

(a) kanas   'nay   ma-nukub   tu Rawa
basket   that   MA-cover   Obl cloth
"That basket was covered by a cloth." (Q-77)

(b) kanas   'nay   nukub-an*(-ku)   tu Rawa
basket   that   cover-LF-1S.Gen   Obl cloth
"That basket was covered by a cloth by me." (Q-77)

(21)

(a) ma-tiok=ti/me-tiok=ti   si   na tuquq   'nay
MA-rot=Pfv/AF-rot=Pfv meat   Gen chicken   that
"That chicken is rotten." (Q-84)

(b) tiok-an-ku   si   na tuquq   'nay
rot-LF-1S.Gen meat   Gen chicken   that
"I made the chicken rot." (Q-84)

The *ma-* marking is also applicable to describe the property of inanimate entity filtered through cognitive interpretive mechanisms, mostly subjective sensory experience, as in (22).

(22)

(a) ma-zanum   ranum   zau   azu Rak
MA-drink   water   this   like wine
"This water drank like wine." (Q-107)

(b) me-zanum=iku   ranum   zau   azu Rak
AF-drink=1S.Nom   water   this   like wine
"I drank this water.   It's like wine." (Q-107)

(c) zanum-an-ku   ranum   a   zau   azu Rak
drink-LF-1S.Gen   water   Link this   like wine
"This water was drunken by me like wine." (Q-107)

Again, this sentence can also be expressed using AF or LF, but as we can see in (22b) and (22c), an overt agent, =*iku* and -*ku* cannot be omitted.

In Evans and Ross (2001), this type of *ma-* is the so-called valency-decreasing prefix commonly associated with "destruction" events, such as 'break' or 'split.'

3.2. Middle passive (anti-causative)

Unlike spontaneous event, middle passive expresses a situation in which "an external causer, usually human, is understood to exist, but is pragmatically deemphasized due to factors such as non-specificity or relative unimportance from the speakers point of view as compared to the Patient" (Kemmer 1993: 147). In this aspect, the semantic Patient is the only role that receives linguistic coding, as in (23).

(23) ma-baksiu   tanian   sulal   'nay
     MA-throw   where   book   that
     "Where was the book throw (to)?" (040414-138)

The speakers also use the LF form to describe the same scene in (23), as in (24), but they interpreted (24) as having an explicit doer who is responsible for initiating the action. In (23), what receives more attention is the "book" that the speaker might be eagerly looking for.

(24) baksiu-an-su   tanian   sulal   'nay
     throw-LF-2S.Gen   where   book   that
     "Where did you throw the book?" (040414-137)

This kind of event also includes positional change which apparently implies an extraneous Agent. For example, a rope hanging on the tree cannot possibly happen without a causer. In the positional middle, the causer is conceived as unimportant, and only the final state of the patient, i.e., the rope, is of pragmatic significance. When this is the case, positionals in Kavalan are found to be expressed by *ma-*.

(25) yau usiaq   Ra'is   'nay   ma-ziut ta-paRing-an 'nay
     exist one   rope   that   MA-hang Loc-tree-Loc   that
     "A rope hung on the tree." (Q-48)

Sometimes, it is not an easy task to distinguish spontaneous events from middle passives, because the difference lies in the conceptualization of the speaker, i.e., whether there is a doer when they only saw the consequence of the event. However, it is clear that whether there is a doer or not, when the speakers use *ma-*, the patient or the undergoer is the focus of their conceptualization. This kind of event could be

considered as a type of valence-decreasing device as termed by Evans and Ross (2001).   Events of this kind are intrinsically transitive, and *ma-* is used to decrease the argument numbers of the event.   In the ergative system like Kavalan, we consider 'anti-causative' as a more appropriate term for this kind of events than 'middle passive' in Kemmer's study of Indo-European studies.

Some trouble cases are found in our data that only occur in direct elicitations. They are troublesome because they seem to increase the transitivity of the event. According to our elicitation, *ma-* can also be used to express the events in which the force is transmitted from an explicit Agent to an explicit Patient.   In (26), the verb *pukun* "hit" is highly transitive.

(26) ma-pukun=iku   na   sunis   'nay
      MA-hit=1Sg.Nom   Gen child   that
      "I was hit by the child." (050610)

In a radical case, it even appears that *ma-* is used to increase the argument number of an event.   As in (27), by using *ma-*, the originally mono-argument event in (27a) would take one more argument in (27b). The Patient "aizipna" in (27b) is conceptualized as transitively affected by the action of sneezing.   According to the informants, to sneeze in front of a person is a bad omen to the person.   The person who is about to go hunting should cancel or delay his schedule if someone sneezes in front of him.

(27)
(a)   basing=iku
     sneeze=1S.Nom
     "I sneezed." (050610)
(b)   ma-basing-ku   aizipna
     MA-sneeze-1S.Gen   3S.Nom
     "I sneezed in front of him." (050610)

To many scholars of Oceanic linguistics, this function is unusual, since Oceanic prefix *ma-* is in general a valence-decreasing device.   One interesting fact is that the verb "sneeze" marked by *ma-*, compared with LF-marking, denotes lower agency or intentionality of the event agent.   Example (27c) is a LF counterpart of (27b), which implies higher transitivity of the event in that the agent is doing the action on purpose.

(27)

(c) basing-an-ku   aizipna
     sneeze-LF-1S.Gen   3S.Nom
     "I sneezed in front of him (on purpose)."(050610)

Our informants report that the use of *ma-* in Kavalan has been influenced by its nearby Amis speech communities. In Amis, similar prefix *ma-* can denote high transitivity of an event, following the pattern like (27b). We are not sure whether (27b) is a product of language contact, and the influence of Amis on Kavalan is, nevertheless, beyond the scope of the present study. However, as a marker of spontaneous undergoer and anti-causative patient, we do not exclude the potential of Kavalan *ma-* in developing into a patient-focus marker.

3.3.Naturally reciprocal/collective

Typical reciprocals in Kavalan use *sim-* to mark the verb, and *ma-* marking does not carry reciprocal meanings, as in (28), but for some verbs that imply naturally reciprocal or naturally collective event, there is a lexical-specific *ma-* being attached.[8] Naturally reciprocal events, like (29), are conceptualized as involving two individuals, but the action being carried out is not viewed as two successive actions, but is viewed as a joint action to be perceived as an entirety.

(28) sim-tayta/*ma-tayta   qanyau
     Rec-see/MA-see   3P.Nom
     "They saw each other." (Q-14)

(29) ma-qupit/me-qupit   ya/*tu   qelisiu   a   zau
     MA-stick/AF-stick   Nom/*Obl   money   Link this
     "The money stuck together." (Q-20)

Similarly, naturally collective events depicts an action that is simultaneously carried out by a group of people, but the action is not viewed as separate actions. Rather, the action can possibly be carried out only in the collective sense.   See (30).

(30) yau   ta-kinir-an   na butuq   'nay sunis   'nay
     exist   Loc-side-Loc Gen pond   that child   that
     me-lisinpu/ma-lisinpu
     AF-gather/MA-gather
     "Students gathered near the pond." (Q-26)

---

[8] For detailed discussion of the function of *sim-*, see Shen (2005) and Shen and Sung (2005).

Example (29) is a naturally reciprocal event, which cannot possibly be carried out with only one participant.　On the other hand, the naturally collective event is exemplified by (30), in which "gathering" is conceived as one single event that can be carried out only by a group of people.　　Unlike naturally reciprocal events, naturally collective events involve no transmission of force to each other.　　This kind of *ma-* is highly lexical-specific.

4.　Distribution of Kavalan *ma-* and its core meaning

The table below summarizes the semantic distribution of Kavalan *ma-* in various types of semantic functions classified in Kemmer (1993).　We have found that Kavalan *ma-* is in several aspects similar to the so-called "middle marker."　　The most predominant function of *ma-* is to denote spontaneous event, and the secondary function of *ma-* is for anticausatives and reciprocals.

Table 3. Middle semantics of Kavalan *ma-*

Semantics		*Ma-*	Alternatives
Reflexive	Direct	X	LF
	Indirect	X	AF
	Logophoric	X	AF
	Grooming	X	LF/AF
Reciprocal	Typical	X	(sim-)
	Chaining	X	(sim-)
	Naturally reciprocal	O	AF
	Collective	X	AF (sim-)
	Naturally collective	O	AF
Middle	Anti-causative	O	LF
	Facilitative	X	LF
	Positionals	O	LF
Impersonal		X	AF
Non-translational motion	Change figuration	X	AF
	No change of figuration	X	AF
	Change of body posture	X	AF
	Other body action	X	AF
Translational motion		X	AF
Emotion	1P	X	AF
	2P	X	AF
	desirative	X	AF
	speech act	X	AF
Cognition	Cognitive middle	X	LF/AF
	Intentional	X	AF
Perception middle		X	LF
Spontaneous	Motion (non-volitional)	O	AF/LF

	Position (non-volitional)		O	LF/AF
	Animate spontaneous		O	AF/LF
	Inanimate	Shape change	O	LF/AF
		Chemical change	O	AF
		Partial disruption	O	AF
		Global disruption	O	AF
		Existential change	O	AF
		Property of activity	X	AF
		Object specific	O	AF
		Inanimate state	O	AF
	Cognitive interpretation		O	LF/AF

In spontaneous events, the verbs involve only one salient argument which is the agent-patient subject of the action. Also, the speaker profiles the endpoint, i.e., the change of state, of the event.[9] The figure below illustrates the force-dynamics of spontaneous events.

(31) spontaneous event
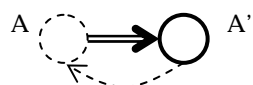
According to our elicitation of modern Kavalan, we believe that the core meaning of *ma-* is to "focus" the undergoer in "spontaneous" events. Along this line, 1) dual role of the subject, and 2) profiling the endpoint, are the two typical features of Kavalan *ma-*. In naturally reciprocal events, though the endpoint is not saliently profiled, the grammatical subject of the sentence is simultaneously the agent as well as the patient, as illustrated in (32).

(32) Dual role of the subject: naturally reciprocals
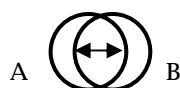
On the other hand, in middle passive events, the event involves an implicit agent, but only the patient, i.e., the endpoint of the event, is regarded as salient in the speaker's conceptualization. (33) diagrams the force-dynamic of middle passives.

---

[9] Langacker's Cognitive Grammar is used to understand the event scenario. The term "profile" is to be understood along the line of Langacker (1999).

(33) middle passive
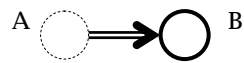
Here we would like to make a clarification that we do not make a strong claim that the "middle semantics" in Kavalan is identical to the "middle voice" in Indo-European languages, though they might share some overlapping semantic aspects.   The marker *ma-* is realized as a focus to be situated into the Austronesian focus system, and we will rather call it "undergoer focus" because the term will avoid many misunderstandings with regard to typological problems.

To see how the semantics are related, the figure below shows the semantic distribution of *ma-* among various middle semantics.

Figure 1. The semantic distribution of *ma-* (model adopted from Kemmer 1993: 202)
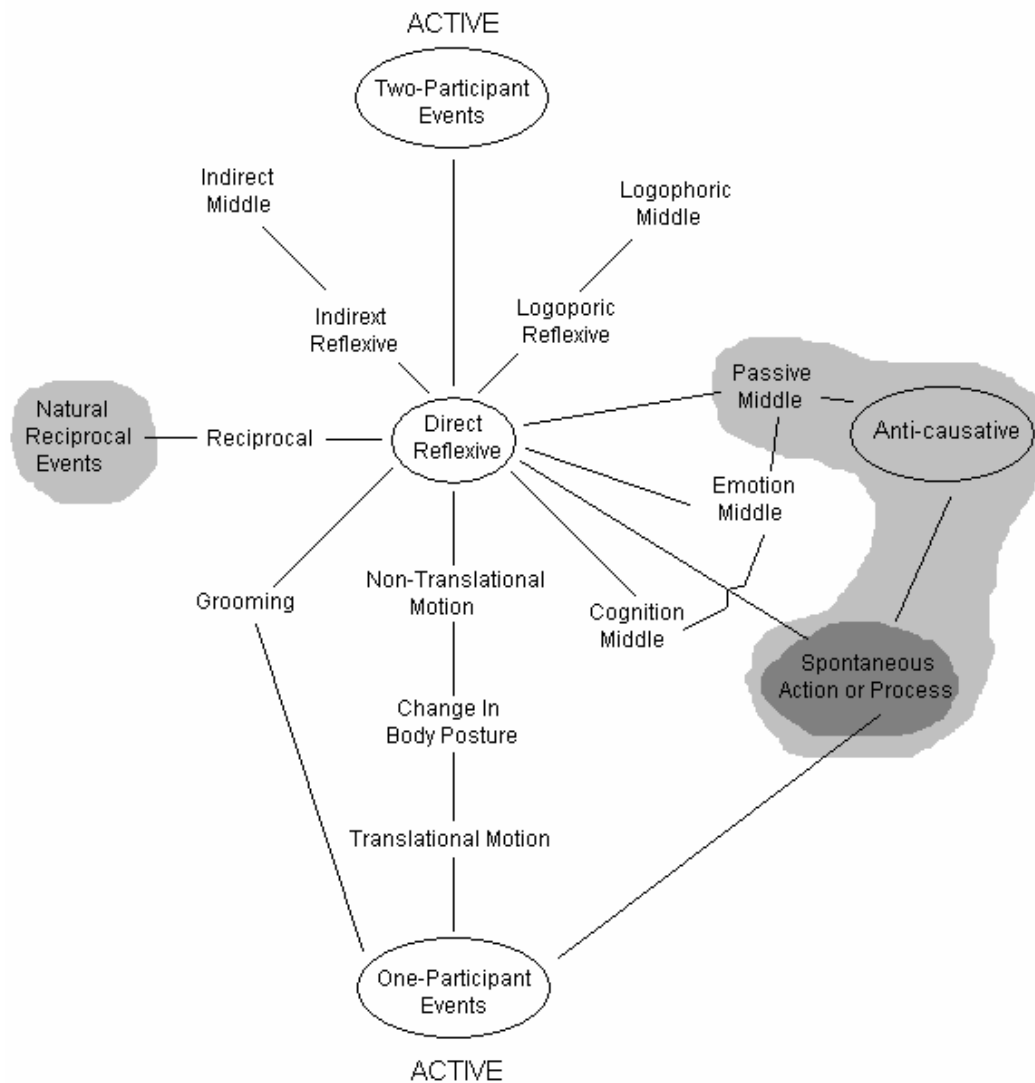
The model is developed by Kemmer (1993), locating various semantic relations in a two-dimensional space. The connecting line indicates shared semantic properties between semantic domains, and the distance indicates their semantic proximity. We could see that the semantics of *ma-* locate approximately between "two-participant actives" (transitive) and "one-participant actives" (intransitive), showing its middle property and the implicitness of its event activeness.

Though cross-linguistic evidences indicate that middle semantics is historically derived from reflexives in many languages (Kemmer 1994, Kazenin 2001, Croft et al. 1987), there is no evidence to say that Kavalan *ma-* also follows this path. Rather, Kavalan reflexives has another marker *sim-* and is almost never associated with *ma-*.

5. A cross-linguistic sketch

Evans and Ross (2001) has reported the prefix **ma-* as a marker general to Oceanic languages. Cases are found in Mangap-Mbula, Samoan, Tamanbo, Tongan, Tagalog, Cebuano, and many other oceanic languages with different manifestations. There could be four groups of Proto-oceanic **ma-*: 1) valency-decreasing **ma-*, 2) fossilized **ma-* on stative verbs, 3) stative verbs that can be reconstructed with or without **ma-*, and 4) fossilized **ma-* on experiential verbs. The present study is limited to the first type of **ma-* which more or less has some degree of dynamics. This limitation is in fact constrained by the use of *ma-* in Kavalan, which reflects primarily only the first type of *ma-* defined by Evans and Ross.

This type of *ma-* is attached to verbs that are intrinsically transitive, and they are, therefore, also known as "anticausatives." Some Formosan equivalents have been studied such as Puyuma *mu-*, Bunun *mu-*, and Paiwan *ma-* (Ross unpublished manuscript).

Based on the same questionnaire, we compared synchronic uses of Kavalan *ma-*, Paiwan *ma-*, and Amis *ma-*. Some preliminary findings are illustrated in this section.

5.1. Kavalan, Paiwan, and Amis in comparison

The comparison shows that the marker *ma-* in the two Formosan languages is used in 1) spontaneous events, 2) middle passive events, and 3) some reciprocal events, ordered according to prevalence. Table 4 shows the result.

Table 4. Kavalan, Paiwan, and Amis *ma-* in comparison

Event types	Subtypes		Kavalan	Paiwan	Amis
Reflexive	Direct		X	X	X
	Indirect		X	X	X
	Logophoric		X	X	X
	Grooming		X	X	X
Reciprocal	Typical		X	X	X
	Chaining		X	X	X
	Naturally reciprocal		O	O	X
	Collective		X	X	X
	Naturally collective		O	O	O
Middle	Anti-causative		O	O	O
	Facilitative		X	O	O
	Positionals		O	X	O
Impersonal			X	X	X
Non-translational motion	Change figuration		X	X	X
	No change of figuration		X	X	O
	Change of body posture		X	X	O
	Other body action		X	X	O
Translational motion			X	X	O/X
Emotion	1P		X	O	O
	2P		X	X	O
	desirative		X	X	O/X
	speech act		X	X	X
Cognition	Cognitive middle		X	X	O
	Intentional		X	X	X
Perception middle			X	X	X
Spontaneous	Motion (non-volitional)		O	O	O
	Position (non-volitional)		O	O	O
	Animate spontaneous		O	O	O
	Inanimate	Shape change	O	O	O
		Chemical change	O	O	O
		Partial disruption	O	O	O
		Global disruption	O	O	O
		Existential change	O	O	X
		Property of activity	X	X	X
		Object specific	O	X	O
		Inanimate state	O	X	O
	Cognitive interpretation		O	X	O

The two characteristics we have mentioned in Section 4 are also found in Paiwan and Amis. As (34a) and (35a) below have shown, *ma-* depicts 1) the spontaneity of an event, and 2) the low saliency of the event agent. The event agent is not explicitly realized and the event patient is the sole argument marked nominative case. When we use AF, the event becomes causative and the agent has to be linguistically realized or explicitly known in the immediate speech context, as in (34b) and (35b).

(34) Amis

(a) ma'-ari-tu   ku   pa-hana-an

   MA-break   Nom   vase (literally "the place that have flowers")

   "The vase broke."

(b) mi-ari'   kaku   tu   talid

   AF-break   1S.Nom   Acc   bottle

   "I broke the vase."

(35) Paiwan

(a) na   ma-dumul   a   navat

   Asp   MA-gather   Nom   quava

   "Guavas gathered (in a pile)."

(b) t<em>umul   tua   navat   ti   puya

    <AF>gather   Acc   guava   Ncm   PN

     "Puya collected guavas (in a pile)."

The particularity of Kavalan and Amis *ma-* is that its focus can be either agent or patient.   In these two languages, *ma-* is typically analyzed as PF marker when the semantic patient is marked nominative and agent as genitive.   Studies in Amis thus employ a "split-function" analysis in treating the marker *ma-*.   For example:

(36) Amis (Wu 1995 : 12)

(a) ma-ulah   ci   ofad   (i)   ci   lakaw-an

   AF-like   Nom   Ofad   Prep   Acc   Lakaw-Acc

   "Ofad likes Lakaw."

(b) ma-lisu'   ni   aki   ci   panay

   PF-visit   Gen   Aki   Nom   Panay

   "Aki visited Panay."

   "Panay was visited by Aki."

Nevertheless, a typological comparison of the prefix is easy to fall into the pitfall of oversimplification.   One thing needs to be kept in mind is that language specific constraints on the use of a marker is very complex.   Verbs that can be marked by *ma-* to convey a certain event scenarios differ from one language to another.   Table 5 illustrates some examples in Kavalan, Paiwan, and Amis.

Table 5. Some different manifestations of *ma-* in Kavalan, Paiwan, and Amis

	Kavalan	Paiwan	Amis
Naturally reciprocal	ma-tanak 'separate'	*ma-tuvaday 'ma-separate'	*ma-lias 'ma-leave'
Emotion	*ma-qenut 'ma-angry'	ma-dudu 'be angry'	ma-defit 'be angry'
	*ma-lizaq 'ma-happy'	ma-leva 'be happy	ma-'acang 'be happy'
	*ma-ngil 'ma-want'		ma-nikaw 'desire'
Motion[-translation]	*ma-bibil 'ma-tremble'	*ma-geregereger 'ma-tremble'	ma-mirmir 'tremble'
	*ma-basing 'ma-sneeze'	*ma-va'esing 'ma-sneeze'	ma-'esing 'sneeze'
Cognition	*ma-supar 'ma-know'	*ma-keliang 'ma-know'	ma-fanaq 'know'
	*ma-kalingu 'ma-forget'	*ma-alim 'ma-forget'	ma-tawal 'forget'
Inanimate state	ma-suni '(bell) ring'	*ma-zaing 'ma-ring'	ma-suni '(bell) ring'
	*ma-qilat 'ma-sparkle'	*ma-galilegil 'ma-sparkle'	ma-litmit 'sparkle'

Also, though the present study is focused on the middle *ma-* with some degree of event dynamism, we also notice that *ma-* can mark statives events in Formosan languages.   However, our preliminary investigation shows that Amis *ma-* is more static than Kavalan and Paiwan *ma-*.   Table 6 shows that Amis uses *ma-* to mark stative events where Kavalan and Paiwan do not.

Table 6. The use of *ma-* for statives

Kavalan	Paiwan	Amis
*ma-isi' 'ma-fat	* ma-nguangua' 'ma-pretty'	ma-su'su' 'fat'
'ma-tengen 'ma-black'	*ma-sangua' 'ma-delicious'	ma-tuniq 'soft'
*ma-ngil 'ma-good'	* ma-sase'u 'ma-stinky'	ma-cahiw 'hungry'
		ma-toka 'lazy'
		ma-tekesay 'expensive'

Though Evans and Ross (2002) suggested that Proto-Oceanic *ma-* can be attached to stative verbs, in Kavalan and Paiwan, the cases are rare if any.   On the other hand, Amis has rich uses of stative *ma-*.   This also reflects the typological manifestations we have mentioned in the beginning of this section.

6. Conclusion

In this study, we have shown that *ma-* appears as an independent focus marking in modern Kavalan in terms of its grammatical behavior.   In modern Kavalan, *ma-* occurs in spontaneous, middle passive, naturally reciprocal, and passive events.   The

main function of *ma-* is to "topicalized" the endpoint of a force dynamic transmission when the endpoint plays the dual role as a patient-agent or when the endpoint is the semantic patient without highlighting the implicit agent. Though its syntactic behavior is more similar to agent focus, *ma-* it comes to associate with LF marking, and is used to express highly transitive event in modern Kavalan. In particular, it shows many aspects to be distinguished from agent focus, and has been specialized as another focus marker as we have called "undergoer focus."

Preliminary comparison has been carried out to compare the uses of anticausatives in Paiwan and Amis, and the result shows that typological differences in three languages. Amis, like Kavalan, typically treats *ma-* as having two grammatical functions: AF marker and PF marker. The present study does not intend to make any strong claim, but the shared similarity of AF ma- and PF ma- is very strong as indicated in Figure 1.

The use of *ma-* as opposed to other AF prefixies seems to indicate the split-S in Formosan languages, and a careful investigation has to be carried out in our future studies.

References

Arce-Arenales, Manuel, Melissa Axelrod and Barbara A. Fox. 1994. Active voice and middle diathesis: A cross-linguistic perspective. In *Voice: Form and Function*, ed. By Barbara A. Fox and Paul J. Hopper, 1-22. Amsterdam: JB.

Blust, Robert. 2002. Notes on the history of 'focus' in Austronesian languages. In *The history and Typology of Western Austronesian Voice Systems*, ed. by Fay Wouk and Malcolm Ross, 63-78. Australia: Australian National University.

Bybee, Joan, Revere Perkins and William Pagliuca. 1994. The *Evolution of Grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.

Chang, Hsiu-chuan. *Functional Reference of Paiwan Grammar*. Taipei: Yuanliu.

Chang, Yungli. 1996. Voice, *Case and Sgreement in Seediq and Kavalan*. Ph.D. dissertation, National Tsing Hua University.

Chang, Yungli. 2000. *Functional Reference of Kavalan Grammar*. Taipei: Yuanliu.

Croft, William, HB-Z Shyldkrot, and Susan Kemmer. 1987. Diachronic semantic processes in the middle voice. *Papers from the 7th International Conference on Historical Linguistics*, ed. By Anna Giacolone Ramat, Onofrio Carruba and Giuliano Bernini, 179-192. Amsterdam: John Benjamins.

Donohue, Mark. 2004. POc *ma- and the adjectives: Ocenaic as seen through possibly productive morphology in Tukang Besi. *Oceanic Linguistics* 43 (1): 149-176.

Evans, Bethwyn and Malcolm Ross. 2001. The history of Proto-Oceanic *ma-. *Oceanic Linguistics* 40 (2): 269-290.

Himmelmann, Nikolaus P. 2002. Voice in western Austronesian: An update. In *The history and Typology of Western Austronesian Voice Systems*, ed. by Fay Wouk and Malcolm Ross, 7-16. Australia: Australian National University.

Ho, Da-an and Siu-fang Yiang. 2000. Austronesian Languages and Formosan Languages. In *The Austronesian Language Series*. Taipei: Yuan-liu.

Kazenin, K. I. 2001. Verbal reflexives and the middle voice. In *Language Typology and Language Universals*, ed. by Haspelmath et al., 916-927. Berlin: de Gruyter.

Kemmer, Suzanne. 1993. *The Middle Voice*. Amsterdam: JB.

Kemmer, Suzanne. 1994. Middle voice, transitivity and the elaboration of events. In *Voice: Form and Function*, ed. by B. Fox and Hopper Paul, 179-230. Amsterdam: JB.

Kleiman, M. H. 1992. Middle verbs, reflexive middle constructions and middle

voice. *Studies in Language* 16 (1): 35-61.

Lee, Amy Pei-Jung. 1997. *The Case Marking and Focus Systems in Kavalan.* M.A. thesis, Tsing-Hua University, Hsinchu, Taiwan.

Ross, Malcolm and Stacy Fang-ching Teng. 2004. Formosan languages and linguistic typology. *Proceedings of the 9th International Symposium of Chinese Languages and Linguistics*, ed. by Shuanfan Huang, 1-32. Taipei: Graduate Institute of Linguistics, National Taiwan University.

Ross, Malcolm. 2002. The history and transitivity of western Austronesian voice and voice-marking. In *The history and Typology of Western Austronesian Voice Systems*, ed. by Fay Wouk and Malcolm Ross, 17-62. Australia: Australian National University.

Ross, Malcolm. 2005. Notes on anticausatives in Formosan languages. Unpublished manuscript.

Saeed, John. 1997. *Semantics*. Oxford: Blackwell.

Shen, Chia-chi. 2005. *Reflexives and Reciprocals in Kavalan.* M.A. thesis. National Taiwan University.

Wu, Joy Jiang-lan. 1995. Complex Sentences in Amis. Master thesis, National Taiwan Normal University.

Wu, Joy Jiang-lan. 2000. *Functional Reference of Amis Grammar.* Taipei: Yuanliu.

Wu, Joy Jing-lan. 2005. "Voice" markers in Amis: Their forms and functions. Lecture in National Taiwan University, June 13, 2005.