

Chapter 5

Semantic Roles and Case Marking

In Chapter 4, the major classes of Amis verbs have been worked and represented in the logical structures. In this chapter, the semantic roles of the arguments in those logical structures will be examined, and I will also discuss how cases are assigned for each argument in a sentence in Amis.

As mentioned in Chapter 2, the issue of semantic roles has been discussed under three different levels of generality (VV 2005): verb-specific semantic roles (e.g. killer), thematic relations generalized across the verb-specific roles (e.g. agent), and generalized semantic roles that are generalizations across thematic roles (e.g. macroroles in RRG). On the issue of semantic roles, previous studies of Amis seem to focus on the distinctions of the second level. In particular, these thematic relations are often discussed together with the “focus” (i.e. voice in the present discussion) phenomenon. Amis has been characterized in a number of previous studies to have a four-focus or four-voice system, which includes agent (“actor” in this dissertation), patient (our “undergoer” in this dissertation), instrument, and location. However, there are at least two problems in such an analysis. To begin with, it is inappropriate to place the single argument of all of the intransitive verbs in a one category, namely, agent. For example, some intransitive state predicates such as *ma-su'su* ‘fat’ and *ma-patay* ‘(become) dead’ are often glossed as AF verbs in the previous analyses, similar to the intransitive activity verbs (e.g. *ma-lingad* ‘plow’ and *r-um-akat* ‘walk’). In other words, these studies seem to place the single argument of these intransitive verbs under one semantic role, as long as this argument is

marked by the nominative case.¹ However, apparently, there is no effector, let alone a true “agent” involved in the states of affairs depicted by predicates like *ma-su’su* ‘fat’ and *ma-patay* ‘(become) dead’. Furthermore, semantically speaking, the role the single argument of verbs like *ma-lingad* ‘plow’ and *r-um-kat* is different from that of the single argument of *ma-su’su* ‘fat’ and *ma-patay* ‘(become) dead’; the former is more actor-like, while the latter is more undergoer-like. Placing them under a single category does not seem very appropriate. The RRG analysis of these one-place predicates is quite different, as the single argument for an intransitive verb can still be assigned different macroroles, depending on the logical structure of the predicate, even though their single argument is marked by the same case.²

The second problem in such a four-voice system lies in the rather peculiar co-occurrence of two voice markers, in particular the “undergoer voice” and the “instrument voice” markers, on the same predicates but with one possibility of assigning the nominative case to the NP. For example, in the verb *ma-sa-pi-sanga* ‘use something as an instrument to make something’, it is always the instrument that can be marked by the nominative case, not the undergoer NP. Such examples suggest that one of the two “voice” markers should perform a different function. This is why I argued in Chapter 3 that there are actually only two voice distinctions: actor and undergoer; the latter allows multiple selections from roles like patient, instrument, and location. The other two voices mentioned in the earlier analysis, instrument and location, are treated as applicative constructions that indicate the variable undergoer choices in Amis. In other words,

¹ Chen (1987) presents an opposite proposal in which the only case relation in intransitive verbs is [+Patient].

² Furthermore, as mentioned in Chapter 2, “agent” is not treated as a basic thematic relation in the RRG framework, and thus this term is not used in the analysis in the voice system.

examples like *ma-sa-pi-sanga* are applicative UV constructions in which there is a non-canonical choice of the undergoer. Both of the two new analyses for the semantic roles and the voice system in Amis make crucial reference to the macrorolehood of an argument, which is the first issue that will be explored in this chapter.

Another major topic to be investigated in this chapter concerns the case marking patterns in Amis, with a specific focus on the following issues. First, the discussion of the forms and functions of the case markers will be elaborated. Second, case assignment rules for different types of verbs will be postulated. These rules will be closely related to the exploration of grammatical relations in Chapter 6.

This chapter is organized as follows. Section 5.1 is dedicated to the issues related to macroroles such as the number of macrorole that each verb might take and the distinction between actor and undergoer. Section 5.2 re-examines the forms and functions of the case marking system in Amis. A comparison between the proposal made in this dissertation and analyses proposed in other works such Huang (1995), Liu (1999), and Liao (2002) will be provided. Section 5.3 investigates the case assignment for one-place and two-place predicates, while Section 5.4 discusses the case marking patterns for three-place predicates, where variable undergoer selection for some verbs in Amis have been found.

5.1 Macroroles

As demonstrated in Chapter 2, the assignment of macroroles is based on the AUH presented in Figure 5.1 (repeated from Figure 2.7, VV (2005:126)) that makes reference to the argument positions in the logical structure of the predicate, and the set of default principles stated in (5.1) (repeated from (2.5)).

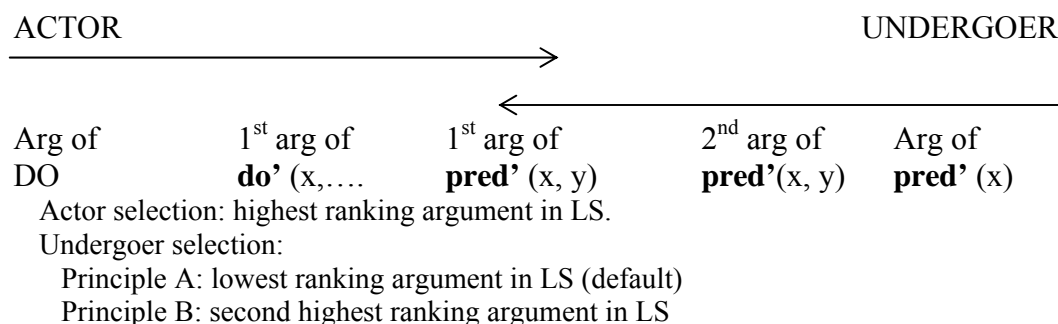


Figure 5.1 Actor-Undergoer Hierarchy (AUH)

(5.1) Default Macrorole Assignment Principles

- a. Number: the number of macroroles a verb takes is less than or equal to the number of arguments in its logical structure
 1. If a verb has two or more arguments in its LS, it will take two macroroles.
 2. If a verb has one argument in its LS, it will take one macrorole.
- b. Nature: for verbs which take one macrorole,
 1. If the verb has an activity predicate in its LS, the macrorole is actor.
 2. If the verb has no activity predicate in its LS, the macrorole is undergoer.

The AUH states the default selection of macroroles; that is, given a transitive predicate, the leftmost argument will be chosen to be the actor, and the rightmost one will be the undergoer. However, there is also marked assignment for undergoer, as found in many languages. Hence, there are two possible principles regulating the undergoer selections cross-linguistically. As shown later in the discussion, both principles are needed to account for the data in Amis.

We mentioned in Chapter 2 that RRG distinguishes two types of transitivity: M-transitivity (i.e. macrorole transitivity) and S-transitivity (i.e. syntactic transitivity or semantic valence). The former is determined by the number of the macrorole, while the latter is indicated by the number of the core argument that a verb takes. It is also pointed out that M-transitivity and S-transitivity do not necessarily have the same value, as illustrated in Table 5.1 (repeated from Table 2.5, VV (2005:64)):

Table 5.1 Macrorole Number and Transitivity

	Semantic Valence	Macrorole Number	M-transitivity
<i>snow</i>	0	0	Atransitive
<i>die</i>	1	1	Intransitive
<i>drink</i> [ACTIVITY]	1 or 2	1	Intransitive
<i>drink</i> [ACT ACCOMPL]	2	2	Transitive
<i>kill</i>	2	2	Transitive
<i>set</i>	3	2	Transitive
<i>send</i>	3	2	Transitive

The distinction between S-transitivity and M-transitivity is very important, as it may bring out different analyses for the transitivity type (e.g. accusative, ergative, or both) of a language. In the following, I will discuss the assignment of macrorole for verbs that semantically take different numbers of core arguments.

5.1.1 Macrorole Assignment and Predicates with Zero Core Arguments

Typical examples of predicates with zero core arguments are meteorological or phenomenal verbs such as *ma-orad* ‘rain’, *ma-faliyos* ‘have typhoon’, *si’enaw* ‘cold (in terms of weather)’, and *tu’eman* ‘dark’. In Amis, these verbs can appear by themselves without any co-occurring argument, as illustrated in (5.2):

- (5.2) a. *Ma-orad anini.*
 NEUT-rain now
 ‘It is raining today.’
- b. *Si’enaw anini.*
 cold now
 ‘It is cold today.’

The zero semantic valence of such predicates is also indicated in their behavior in the *-en2* ‘feel...’ construction, which has been discussed in Chapter 4. Examples follow:

- (5.3) a. *Fa’edet-en kaku t-u-ya nanum.*
 hot-EN2 1S.NOM DAT-CN-that water
 ‘I feel that that water is very hot.’ (NEUT)

- b. Karteng-en cingra (mi-tatuy) t-u felac.
heavy-EN2 3S.NOM NEUT-carry DAT-CN rice
'He feels very heavy when carrying the rice.' (NEUT)
- c. Ma-ulah-en cingra_i t-u nguhah nira,
AV-like-EN2 3S.NOM DAT-CN lover 3S.GEN

sa-pi-kadafu-an tu cingra_i.
InA-PI-marry-MOOD.AV ASP 3S.NOM
'She likes her lover very much, so she wants to get married.'
- d. Ma-kaker-en cingra_i t-u wawa nira,
AV-angry-EN2 3S.NOM DAT-CN child 3S.GEN

sa-pi-palu-an tu cingra_i.
InA-PI-beat-MOOD.AV ASP 3S.NOM
'He feels very angry at his child, (so) he wants to beat him.'
- e. Ma-orad-en kaku, sa ca ka-tayra kaku.
NEUT-rain-EN2 1S.NOM so NEG KA-go 1S.NOM
'It seemed like rain to me, so I didn't go.'
- f. Ma-fali-en kaku, sa ca ka-tayra kaku.
NEUT-wind-EN2 1S.NOM so NEG KA-go 1S.NOM
'It seemed windy to me, so I didn't go.'

The sentences in (5.3) are all interpreted as “feel...” or “judge...”. These sentences can be divided into three types based on the argument structure of the state predicate preceding *-en2*. In (5.3a-b), the arguments of the state verbs preceding *-en2* (e.g. *nanum* ‘water’ and *felac* ‘rice’) are different from the one who bears the feeling (e.g. *kaku* ‘I’ in (5.3a) and *cingra* ‘he’ in (5.3b)), while in (5.3c-d), these two arguments are the same (e.g. *cingra* in both examples). In (5.3e-f), only the arguments bearing the feeling or judgment (e.g. *kaku* ‘I’ in both sentences) appear in the sentences; that is, there is no argument for the state verbs (e.g. *ma-orad* ‘rain’) affixed by *-en2* in the two sentences. This difference can be seen from the logical structures of the three types of *-en2* sentences in Table 5.2:

Table 5.2 Three Types of Structures of V-en2

LS of V-en2	Example of V (i.e. the pred' part in the LS)
a. feel' (x, [pred' (y)])	<i>harateng</i> 'heavy'; <i>fa'edet</i> 'hot'
b. feel' (x, [pred' (x, (y))])	<i>ma-ulah</i> 'like'; <i>ma-keter</i> 'angry at'
c. feel' (x, [pred' (∅)])	<i>ma-orad</i> 'rainy'; <i>ma-fali</i> 'windy'

As shown in Table 5.2, the structures of -en2 reflect the sub-types of predicates it attaches and the number of core arguments these predicates have. They are: Type (a), which is for sentences (5.3a-b), is composed of one-place state predicates; Type (b), for (5.3c-d), contains mostly psych-predicates that can have either one or two core arguments; Type (c), for (5.3e-f), are mostly meteorological or phenomenal verbs that have no core arguments.

However, it is also possible for these meteorological or phenomenal verbs to appear with an argument that usually denotes the time or the location for this meteorological state or phenomenon:

- (5.4) a. Ma-orad k-u kakarayan.
 NEUT-rain NOM-CN sky
 'The sky is raining.'
- b. Si'enaw k-u romi'ad.
 cold NOM-CN day
 'It is cold in the daytime.'

The verbs in (5.4) must be given different logical structures from those in (5.2), as their case marking pattern is different. Compare the two logical structures in (5.5):

- (5.5) a. Ma-orad anini.
 NEUT-rain now
 'It is raining today.'
- a'. **rain'** (∅)
- b. Ma-orad k-u kakarayan.
 NEUT-rain NOM-CN sky
 'The sky is raining.'

b'. **rain'** (kakarayan)

The above examples show that the verb *ma-orad* 'rain' can have two lexical entries that vary in the number of core arguments, as seen in (5.5). Based on the macrorole assignment principles stated in (5.1), *ma-orad* in (5.5a) is analyzed as M-atransitive, while the same predicate in (5.5b) is M-intransitive.

The M-atransitive verbs discussed above seem reminiscent of a subset of impersonal verbs (i.e. impersonal intransitive) discussed in Chen (1987).³ Impersonal verbs are characterized as appearing without any argument marked by the nominative case, and that is why Chen (1987) also labels them as "subjectless" verbs. There are two subsets of this verb type: intransitive and transitive, depending whether there is an agent role, marked by the genitive case, showing up in the sentence or not. According to Chen (1987:205), impersonal intransitive verbs are phenomenal verbs denoting meteorological phenomena. Some of the verbs that she mentions are the same as what I have illustrated in (5.2) and (5.4). However, there are some verbs in her categorization that can actually be analyzed in a different way. Consider the following examples:

- (5.6) a. Ci-kawas i lumaq.
 have-ghost PREP house
 'There are ghosts at home.'
- b. Ci-kawas k-u lumaq.
 have-ghost NOM-CN house
 'There are ghosts at home.'
 'The house is haunted.'
- c. Ci-kawas k-u/*i lumaq n-i sawmah.
 have-ghost NOM-CN/PREP house GEN-PPN Sawmah
 'There are ghosts at Sawmah's place.'

³ Chen (1987) identifies two sets of impersonal verbs, intransitive and transitive. Examples were given in Chapter 1.

The verb *ci-kawas* ‘have ghost’ in (5.6a) is also treated as an example of impersonal verbs in Chen (1987), as it can appear without a (nominative) case-bearing argument, and similar to *ma-orad* ‘rain’, it can also show up with an argument marked by the nominative case (e.g. (5.6b)). However, this verb differs from the meteorological verbs in terms of the following features. First, unlike meteorological verbs that are either unaffixed or marked by *ma-*, this verb is marked by *ci-*, which attaches to an object root and derives a predicate roughly rendered as ‘possess something; there is/are something; grow something’, with the “something” part denoted by the root. Some examples are given below.

(5.7)

<i>ci-tangal</i> ‘smart (i.e. have brain)’	<i>ci-futing</i> ‘there is/are fish’
<i>ci-paysu</i> ‘rich (i.e. have money)’	<i>ci-rikior</i> ‘put on clothes’
<i>ci-tiyad</i> ‘pregnant (i.e. have belly)’	<i>ci-ukak</i> ‘have bone’

The following lexical rule for the derivation of the examples in (5.7) can be postulated by utilizing the qualia role of an object root:

(5.8) **Lexical Rule of *ci-* + nominal root α**

a. Rule

LS of <i>ci-</i>	have.y’ (x, (y))
Input	Nominal (α), selected qualia role: formal role
Output	have. y_{of}’ (x, (y)), y= α

b. Example

LS of <i>ci-</i>	have.y’ (x, (y))
Input	<i>paysu</i> ‘money’, selected qualia role: formal role
Output	<i>ci-paysu</i> ‘have money; rich’ have.money’ (x)

The rule states that when *ci-* attaches to a noun root, it is the formal qualia role that is selected in the derivation. As seen in (5.6) and (5.7), most of the derived *ci-* predicates can take one macrorole (i.e. being M-intransitive). Unlike the meteorological/phenomenal predicates such as *ma-orad* ‘rain’ and *ma-fali* ‘windy’, which seem to be M-

atransitive by default, examples such as (5.6a) are not the default pattern for *ci-* predicates, and their occurrence can be explained. The oblique argument in (5.6a) is the *x* argument in the logical structure **have.y'** (*x*, (*y*)). When it is inanimate and is not specified with any information, it can be realized as an oblique core argument. However, if the *x* argument is animate (e.g. denoting a possessor), and/or is followed by some specific information, it has to be coded as a direct core argument, and it will also be a macrorole. We can see this contrast in (5.6b-c). Based on the discussion mentioned above, verbs like *ci-kawas* should be analyzed as M-intransitive verbs by default, but it allows variable patterns that link the core argument either to the core or the periphery; the latter pattern is the marked one. The above discussion shows that the impersonal verbs identified by Chen (1987) should be further differentiated based on whether their default M-transitivity value.

5.1.2 Macrorole Assignment and Predicates with One Core Argument

As mentioned in the beginning, RRG makes the actor-undergoer distinction even among the verbs that take a single core argument.⁴ This approach is quite different from the analysis made in the previous studies. The assignment of macrorole for S-intransitive verbs makes crucial reference to whether or not these verbs have a **do'** in the logical structures. Thus, the single argument for intransitive activity verbs such as *r-um-akat* 'walk' and intransitive state verbs such as *ma-laluk* 'diligent' will not be assigned with the same macrorole; the former has an actor while the latter an undergoer. This distinction has very important implications for the derivational morphology and the case marking patterns in Amis. Consider the following sentences:

⁴ Tsukida (2005b) claims the existence of the phenomenon of "split-intransitivity" in Amis, which is similar to the RRG analysis that I am going to propose here.

(5.9) a. **T-um-ireng** cingra.
 stand<NEUT> 3S.NOM
 ‘He is standing.’

a’. **Tireng-en** aku pa-kimad, ta paka-nengneng
 stand-UV 1S.GEN CAU-speech so.that ABLT-watch

 kamu.
 2S.NOM
 ‘I will stand up when making a speech so that you can see me clearly.’

b. **Ma-tuniq** k-u-ni a titi
 NEUT-soft NOM-CN-that LNK meat
 ‘The meat is soft.’

b’. **Tuniq-en** aku k-u-ni a titi.
 soft-UV 1S.GEN NOM-CN-this LNK meat
 ‘I will tenderize the meat.’

Both *t-um-ireng* ‘stand’ and *ma-tuniq* ‘soft’ are one-place predicates, and their only argument is marked by the nominative case (e.g. *cingra* in (5.9a)). When they are suffixed with *-en*, the only argument in *t-um-ireng* (now *tireng-en*) is marked by the genitive case and the plain activity verb becomes an agentive active accomplishment. The case of *ma-tuniq* ‘soft’ is rather different. The single argument in *ma-tuniq* (e.g. *kuni a titi*) is still marked by the nominative case in *tuniq-en*, and the derived verb is an agentive causative accomplishment. There are two reasons for their different behaviors in the *-en* form. In addition to the difference in the verb types, which has been discussed in Chapter 4, the other factor affecting the case marking pattern is the different macroroles assigned to the only arguments of *t-um-ireng* ‘stand’ and *ma-tuniq* ‘soft’. As the LS of *t-um-rieng* is **do’** (x, [**stand’** (x)]), the *x* argument will be an actor, according to the macrorole assignment principle stated in (5.1). However, as there is no **do’** in the LS of *ma-tuniq* (i.e. (BECOME/INGR) **soft’** (x)), the *x* argument is an undergoer. When the verb is affixed by *-en*, the agentive UV marker, the actor in *tireng-en* is marked by the

genitive case by default, while the undergoer in *tunig-en* receives the nominative case in this UV *-en* construction. It is noteworthy that even though the verb type of *ma-tunig* has been changed in the *-en* affixation, the undergoer status of *titi* ‘meat’ remains unchanged during the derivation.⁵ If one assumes that the single arguments in *t-um-ireng* ‘stand’ and *ma-tunig* ‘soft’ bear the same kind of semantic role, there is no explanation as to why the two arguments behave differently in their *-en* forms. Therefore, the macrorole distinction should be made for the single arguments of one-place predicates.

5.1.3 Macrorole Assignment and Predicates with Two Core Arguments

When there are two core arguments in the LS of a predicate, the situation becomes complex. As shown in Table 5.1, it is possible that verbs with two core arguments end up having only one macrorole. Typical examples illustrating this mismatch between syntactic transitivity and macrorole transitivity include multiple-argument activities with a non-referential second argument, two-place locative predicates, and three-place predicates. The first two will be discussed in this section; the macrorole assignment for three-place predicates will be examined in next section.

Two-place verbs can appear with two case-marking patterns in Amis, as illustrated in (5.10):

- (5.10)a. Mi-nanum cingra (t-u nanum).
 AV-water 3S.NOM DAT-CN water
 ‘He is drinking water.’
 ‘He is going to drink water.’
- b. Mi-nanum cingra t-u-ra sayta.
 AV-water 3S.NOM DAT-NCM-CN soda
 ‘He is drinking that soda.’
 ‘He is going to drink that soda.’

⁵ This echoes to the conclusion made by Chen (1987:273) that “in general, the language does not favour processes that involve CR-reinterpretation (i.e. case relation interpretation, JW).”

- c. Ma-nanum nira k-u nanum.
 UV-water 3S.GEN NOM-CN water
 ‘He drank the water.’
 ‘The water was drunk by him.’

The pattern in (5.10a-b) is termed as AV pattern, which has the nominative-dative case frame, while the one in (5.10c) is the UV pattern, which has the genitive-nominative case frame. Presumably, based on the macrorole assignment principles stated in (5.1), verbs with two core arguments can have two macroroles. However, as I am going to argue in the following paragraphs, the second argument of a two-place AV verb is actually realized as a non-macrorole. Based on the two phases of linking from semantics to syntax introduced in Chapter 2, there are two possible reasons for such realization. First, the second argument is not assigned with a macrorole at the phase of linking from the argument position in the LS to macrorole, and hence, it is realized as a non-macrorole core argument. Second, the second argument is assigned with a macrorole but its macrorolehood is deprived due to the voice operation. Therefore, it is also realized as non-macrorole core argument. This happens during the phase of linking from macrorole to syntactic functions. The example in (5.10a) is possibly a result of the former, while (5.10b) is probably a result of the latter. The second reason, which is related to the functions of voice operation, will be explored in greater detail in Chapter 6. The following discussion will focus on the first reason, which is related to macrorole assignment.

As indicated in the English translation of (5.10a) and (5.10c), there is a crucial difference regarding the interpretations of the second argument in the two sentences; the one in (5.10a) is non-referential, while the one in (5.10c) is specific. One may suspect

that the referentiality of the second argument is contributed by the different voices of the two verbs. However, consider the following pair of sentences:

- (5.11)a *Kalamkam-en* *aku* *k-um-a'en* **k-u** **hemay.**
 fast-UV 1S.GEN eat<NEUT> NOM-CN rice
 'I will eat the rice fast.'
- b. *Kalamkam-en* *aku* *k-um-a'en* **t-u** **hemay.**
 fast-UV 1S.GEN eat<NEUT> DAT-CN rice
 'I will eat the meal fast.'

Sentences in (5.11) exemplify a type of serial verb construction in Amis. As discussed in Wu (1995, 2000), in the serial verb constructions, the form of the non-initial predicate is constrained by its semantic relation with the first predicate. The tighter the relation is, the more constrained the form will be. For example, according to Wu (1995), the type of serial verb construction that begins with a pace predicate like *kalamkam* 'fast' in (5.11) exhibits a rather tight semantic relation with its following predicate(s), and in such a construction, the non-initial predicate(s) can only appear in its "AV" form (e.g. *mi-*, *ma-*, or *-um-*) in the affirmative declarative. However, the AV marking of the non-initial predicate has no voice function at all; it is the initial predicate that controls the voice choice of the sentence. As shown in (5.11a), in spite of the AV marking of the verb *k-um-a'en* 'eat', the noun *hemay* 'rice' is preceded by nominative case, following the UV pattern signaled by *-en* on the initial predicate *kalamkam* 'fast'.

As the infix *-um-* has no voice function in this sentence, it is glossed as 'neutral' (i.e. NEUT)' in such examples. This neutral function of the voice markers has been briefly mentioned in Chapter 3. However, compare (5.11a) with (5.11b). When the argument *hemay* 'rice' is marked by *tu* in (5.11b), it does not refer to a particular bowl of rice;

instead, it receives a generic reading as ‘meal’.⁶ With reference to the analysis of the second argument of a two-place verb, the contrast demonstrated in (5.11) is very important. To begin with, this contrast shows that the non-referential noun *hemay* in (5.11b) is not a macrorole. If it were a macrorole, it would have to be an undergoer, based on the default assignment principles in (5.1), and consequently, it would be marked by the nominative case, like the noun *hemay* ‘rice’ in (5.11a), as this is a UV sentence.⁷ However, it is marked by the dative case. Second, it shows the possibility that the second argument of two-place activity verbs such *k-um-a’en* ‘eat’ is not necessarily a macrorole. This observation follows the RRG’s treatment for activity verbs with a non-referential second argument as M-intransitive, as seen in the example *drink* in Table 5.1.

The *tu*⁸ NP of a two-place AV verb such as *mi-nanum* ‘(go to) drink water’ in (5.10) is analyzed as a non-macrorole (NMR) core argument in this dissertation. This analysis is proposed based on the following observations: the omissible status of this *tu* NP, the multiple marking function of the case marker *tu* for core and oblique NPs, and the fact that the status of the *tu* NP can be promoted by the locative applicative construction. I have shown the first observation in (5.10a). In fact, two-place activity verbs that are derived from *mi-* + an object root (e.g. *mi-dateng* ‘(go to) pick vegetables’ > *dateng* ‘vegetable’ and *mi-futing* ‘(go to) fish’ > *futing* ‘fish’) often appear without the presence of the second argument, especially when this argument is non-referential.

⁶ This is similar to expression in Mandarin Chinese, in which the expression *chi1 fan4* ‘eat rice’ actually means “to have a meal”. The word *fan4* ‘rice’ does not necessarily refer to the actual rice.

⁷ Only macroroles can be marked by the nominative case in Amis. I will discuss the case assignment later in this chapter.

⁸ Unless necessary, the morphemic break of *tu* is omitted in the discussion; that is, I will discuss it as a single marker, referring it as *tu* instead of *t-u*.

Regarding the second reason, as mentioned in Chapter 3, the dative case marker *tu* can appear with NPs that cover a wide range of variety. It can show up with a core argument, as exemplified in (5.10) and (5.11b). It can also mark apparent adjuncts such as time and reason in a sentence. More examples are given below:

- (5.12)a. Ma-nanam kaku mi-nginguy **t-u** **dafak.**
 NEUT-get.used.to 1S.NOM NEUT-bathe DAT-CN morning
 ‘I am used to taking a bath in the morning.’
- b. Lipahak Ø-ci aki **t-u** **romia-mia-d**
 happy NOM-PPN Aki DAT-CN day<RED>
 ‘Aki is happy every day.’
- c. Ma-stul kaku **t-u** **fekeroh.**
 NEUT-stumble.over 1S.NOM DAT-CN rock
 ‘I stumbled over the/a rock.’
- c’. Ma-stul **n-u** **fekeroh** kaku
 UV-stumble.over GEN-CN rock 1S.NOM
 ‘The rock made me stumble.’ (The rock rolled to me and made me stumble.)

As illustrated in (5.12), the NP marked by *tu* can be an adjunct, manifesting time (e.g. (5.12a-b) or indirect cause (e.g. (5.12c). Compare (5.12c) and (5.12c’), when the NP denotes a direct cause, it is marked as an actor in the UV sentence by the genitive case. The marking functions displayed above of the case mark *tu* show that it is likely this case marker is used for NPs that have a less important semantic status; such NPs include a non-macrorole core argument or an adjunct, depending on the logical structures of the verb. A similar argument has been proposed by Liao (2002) for Kavalan, another Formosan language, in which there is also a case marker *tu* that shares similar functions with the Amis *tu*. Unlike the dative case analysis proposed in this dissertation for *tu* in Amis, Liao (2002) argues that the *tu* in Kavalan is better analyzed as an oblique case

marker instead of an accusative case marker that is proposed by other studies of Kavalan. I will further discuss Liao's analysis in a later section of this chapter.

The third reason underlying a non-macrorole analysis for the *tu* NP in (5.10a) is that the semantic status of this NP can be promoted by the locative applicative constructions. Recall that in Chapter 3, I have shown that there are three sub-types of the *-an* applicative constructions, namely, patient, goal, and locative, as exemplified in (3.43). Both the patient and the goal NPs are marked by the dative case in the AV constructions. The qualification of being the target of the applicative construction indicates the less important status of these NPs in the AV sentences.

Notice that the applicative construction is applicable for both the *tu* NP in (5.10a) and the *tura* NP in (5.10b), though the *tura* NP is referential and cannot be omitted in a sentence. In other words, the *tura* NP should have been assigned undergoer based on the macrorole assignment principles. However, its possibility to be promoted via the applicative construction shows that this NP is also a non-macrorole. I thus argue that the patient NP in a two-place AV sentence is syntactically realized as a non-macrorole core argument, regardless of its status in the lexical phrase of linking (i.e. from the argument position in LS to macrorole assignment).

Table 5.3 displays the comparison between the second NP of a two-place predicate in AV and UV construction.

Table 5.3 The Comparison of the Second Argument of a Two-place Predicate

Voice		AV	(Plain) UV
Features			
1. Case Marking		Dative	Nominative
2. Semantic Status after Voice Operation		NMR core argument	Macrorole (undergoer)
3. Referentiality		±Referential	Referential
4. Omissible		Yes (especially the non-referential ones)	No
5. Promotion via Applicative Construction		Applicable	Not Applicable
6. Privileged Syntagmatic Functions	Semantic	Yes	Yes
	Syntactic	No	Yes
7. Displacement Structure		Nominal Type	Nominal Type
8. Wh-Question		Nominal Type	Nominal Type

The first four features displayed in Table 5.3 have been examined in the above discussion.

The other features will be explicated in Chapter 6. But, as one can see from the table, the major criterion to tell a macrorole argument from a non-macrorole argument is the possibility for to be promoted by the applicative construction; only a non-macrorole argument (or an adjunct) is eligible to appear in such constructions.

Now it follows from the previous discussion that the sentences in (5.10) exhibit different M-transitivity. For instance, while *mi-nanum* (AV) is M-intransitive, *ma-nanum* (UV) is M-transitive, though both are S-transitive, as they have two core arguments in the LS. In fact, even if the second argument is made referential, such as the one in (5.10b), it is still a non-macrorole. As mentioned, the major clue lies in the possibility to apply the applicative constructions in such examples. By the same logic, the two sentences in (5.13) are also deemed as M-intransitive though the second arguments in the two sentences are denoted by personal proper nouns.

(5.13)a. Mi-palah Ø-ci sawmah ci mayaw-an.
 AV-beat NOM-PPN Sawmah PPN Mayaw-DAT
 ‘Sawmah is beating Mayaw.’
 ‘Sawmah is going to beat Mayaw.’

b. Ma-ulah kaku ci panay-an
 AV-like 1S.NOM PPN Panay-DAT
 ‘I like Panay.’

There are two important consequences following the analysis of treating two-place AV predicates as M-intransitive. The first one is related to the macrorole assignment rules postulated in RRG. Following the default assignment rules in (5.1), the predicate *ma-ulah* in (5.13b) should have an undergoer, as it is M-intransitive and it has no **do'** in its LS. However, the only macrorole in *ma-ulah* should be an actor rather than an undergoer. These reasons have been mentioned in the discussion of psych-predicates in Chapter 4, in which I have shown that there are two types of psych-predicates: internally-motivated and externally-triggered. The former includes examples such as *ma-ulah* 'like' and *ma-ngudu* 'embarrassed; humbled; respect', while the latter includes verbs like *ma-'esam* 'irritated' and *ma-lanang* 'annoyed by noise'. The two groups of psych-predicates behave differently regarding the meaning of their *mi-* and *-en* counterparts, as shown in the examples (5.14), repeated from Chapter 4:

- (5.14)a. Mi-ulah Ø-ci aki ci dongi-an.
 AV-like NOM-PPN Aki PPN Dongi-DAT
 'Aki is going to express his love to Dongi.'
- a'. Ulah-en cingra!
 like-UV 3S.NOM
 '(You must) love him!'
- b. Mi-ngudu cingra t-u lafang.
 AV-humbled 3S.NOM DAT-CN guests
 'He will behave himself in front of the guests (to show the respect to them).'
- b'. Ngudu-en k-u singsi!
 humbled-UV NOM-CN teacher
 'Respect the teacher!'
- c. Mi-'esam k-u-ni a lalangaw (t-u
 AV-irritated NOM-CN-this LNK fly DAT-CN
 tamdaw).
 people
 'This fly is irritating (people).'

- c'. *'esam-en
irritated-UV
- d. Mi-lanang k-u suni takuwanan.
AV-annoyed.by.noise NOM-CN sound 1S.DAT
'The sound is annoying me.'
- d'. *lanang-en
annoyed.by.noise-UV

The psych-predicates in (5.14) are all marked by *ma-* by default. The *mi-* forms of the internally-motivated psych-predicates get a motional purposive reading, as indicated in *mi-ulah* in (5.14a) and *mi-ngudu* in (5.14b), and their *-en* forms obtain an agentive active accomplishment reading, as seen in *ulah-en* ‘love (intentionally)’ and (5.14a’) and *ngudu-en* ‘respect (intentionally)’ in (5.14b’). As for the externally-triggered psych-predicates, their *mi-* forms tend to get a causative reading (e.g. *mi-’esam* ‘irritate’ in (5.14c) and *mi-lalang* ‘annoy (with the noise)’ in (5.14d)), and their *-en* forms are not attested (e.g. (5.14c’) and (5.14d’)). I propose that it is the different macrorole types of the experiencers of the psyche-predicates that affect their behavior in the *mi-* and *-en* derivation. The experiencer of internally-motivated psych-predicates is an actor, while the experiencer of externally-triggered psych-predicates is an undergoer. The incompatibility between externally-triggered psych-predicates and the agentive UV suffix *-en* is attributed to the difficulty of construing an undergoer experiencer as an agent, as it is less volitional, whereas the construability of the experiencer of a verb like *ulah-en* ‘love (intentionally)’ as an agent shows that it must be an actor, even though it is M-intransitive and it has no **do**’ in the LS. This analysis, in spite of being an exception for the default macrorole assignment rules postulated in RRG, is not completely ad hoc, as it

is not uncommon cross-linguistically for the first argument of a two-place psych-predicate to be assigned an actor macrorole.

The second consequence following the M-intransitive analysis for two-place AV predicates is that, similar to the proposal made in Liao (2002; 2004) for Kavalan, the case marking patterns in Amis also exhibit an ergative pattern.⁹ Following the methodology adopted in Liao (2004), the case marking patterns of one and two-place predicates in Amis can be summarized as in the following table:

Table 5.4 Case Marking Patterns For One-place and Two-place Predicates in Amis

Pattern	Voice	Affixes ¹⁰	Case Pattern	Macrorole Transitivity	Example
Pattern 1	Neutral	-um- ma-	Nominative (S _A /S _U)	intransitive	<i>t-um-ireng</i> ‘stand’ <i>ma-su’su</i> ‘fat’
Pattern 2	AV	<i>mi-</i> , <i>-um-</i> , <i>ma-</i>	Nominative Dative (S _A) (NMR Core Argument)	intransitive	<i>mi-palu</i> ‘(go to) beat’ <i>k-um-a’en</i> ‘eat’ <i>ma-tayal</i> ‘work’ ¹¹
Pattern 3	UV ¹²	<i>ma-</i> , <i>ma-ka-</i> <i>-en</i>	Genitive Nominative (A) (U)	transitive	<i>ma-palu</i> ‘beat’ <i>ma-ka-ulah</i> ‘like’ <i>palu-en</i> ‘beat (for sure)’

Pattern 1 is found with one-place predicates, while Pattern 2 is found in two-place AV predicates. Both Patterns 1 and 2 are M-intransitive; the nominative case marks the only macrorole (i.e. the S argument). For one-place predicates, the S argument can be actor (abbreviated as S_A) or undergoer (abbreviated as S_U); for two-place AV predicates, the S argument is actor (abbreviated as S_A) and the other argument (i.e. the P argument, or the

⁹ However, Amis displays a split-system between the accusative pattern and the ergative pattern in terms of the voice-marking morphology. This phenomenon will be discussed in Chapter 6.

¹⁰ This list is not exhaustive. Only some commonly found affixes are listed in the table.

¹¹ Two-place AV *ma-* verbs are few in number. The verb *ma-tayal* is used as a one-place predicate most of time, though it is also possible to add a second argument.

¹² This table only discusses the plain UV pattern. For applicative UV sentences, their case pattern will be Genitive (A) + Nominative (U) + Dative (NMR core argument), which is also M-transitive.

patient role) is realized as a NMR core argument.¹³ Pattern 3 is M-transitive; the genitive case marks the actor, while the nominative case marks the undergoer. In other words, the marking of S argument is the same as the undergoer argument, which displays the ergative pattern.

This analysis of the two case marking patterns (i.e. AV and UV) in Amis is different from the previous works. Basically, there are two types of analysis that have been proposed in these earlier studies: the split-ergative system and the accusative system.¹⁴ The former is proposed by Chen (1987), while the latter is implicitly mentioned in Yan (1992).¹⁵ Other scholars do not comment on this issue in their studies, but nevertheless include an accusative case in their case system, which suggests either a split system or an accusative system.

With this new analysis of the case marking patterns proposed in this dissertation, Amis should follow by default the principle for case assignment in ergative languages proposed in RRG:

(5.15) Case assignment rules for ergative languages

- a. Assign absolutive case (i.e. nominative case) to the lowest ranking macrorole argument on the PSA selection hierarchy.
- b. Assign ergative case (i.e. genitive case) to the other macrorole argument.
- c. Assign dative case to non-macrorole arguments (default).

¹³As mentioned earlier, there are two phases of linking involved in the two-place AV construction. It is possible that the second argument of **pred'** is linked to the undergoer, according to the macrorole assignment principles, and then the AV operation deprives this macrorole argument of its macrorolehood. In other words, the AV construction performs the function of argument modulation. This point will be further discussed in Chapter 6.

¹⁴ Liu (1999) seems to adopt an ergative analysis for Amis, as she mentions that intransitive verbs are only found in agent voice (i.e. my actor voice). However, it is not clear whether her intransitive verbs cover both one-place and two-place predicates or just one-place predicates. Furthermore, she still retains the accusative case in her case system, which seems to imply a split-ergative pattern like the one proposed in Chen (1987) for the case marking system, but not a pure ergative pattern.

¹⁵ Yan (1992) places the actor in the UV sentence at a position out of the core, a position analogous to the oblique core argument in RRG. This treatment seems to imply a valence-decreasing function of the UV pattern. His analysis suggests an accusative system for Amis, though he does not explicitly mention it.

The rules in (5.15) account for the case assignment found in Patterns 1 to 3. This set of rules will be further discussed later in this chapter.

Before the discussion of the macrorole assignment for three-place predicates in next section, let us examine two additional types of two-place predicates. This first type is the locative predicates that contain a location and a theme in the core but only have the theme serve as the undergoer. The relevant examples are given in (5.16):

- (5.16)a. Maroq kaku i taypak.
 live 1S.NOM PREP Taipei
 ‘I live in Taipei.’

a'. **live'** (taypak, kaku)

- b. Ira k-u ta-tulu a wawa i la-lumaq.
 exist NOM-CN PL-three LNK child PREP RED-house.
 ‘There are three children inside the house.’

b'. **exist'** ([**be-in'** (la-lumaq, ta-tulu a wawa)])

- c. Ira k-u paysu aku.
 exist NOM-CN money 1S.GEN
 ‘I have money.’ (i.e. My money exists.)

c'. **exist'** ([**have'** (aku, money)])

As illustrated in (5.16), two-place locative predicates show up with a consistent case marking pattern; the theme argument is marked by the nominative case, while the locative argument is marked by the preposition. It is necessary to note that in Amis, the existential, possessive, and locative constructions are all signaled by the predicates *ira* ‘there is/are; exist; be at’ and *awa*, the negative counterpart of *ira*. In the possessive construction, the locative argument is denoted by a genitive pronoun. Further, unlike the predicates discussed in (5.14), there is no corresponding UV pattern for this set of

verbs.¹⁶ This is because one of the core arguments is realized as an oblique argument (i.e. marked by the preposition).

Another type of two-place predicate is the causative state or accomplishment verbs that are derived from adding *pa-* to one-place state predicates. Some examples are given in (5.17):

- (5.17)a. Pa-ka-lipahak Ø-ci aki kitanan
CAU-KA-happy NOM-PPN Aki 1P.INCL.DAT
'Aki made us happy.' (Causative, AV)

a'. [**do'** (aki, Ø)] CAUSE [BECOME **happy'** (kitanan)]

- b. Ma-pa-lipahak n-i aki Ø-ci panay
UV-CAU-happy GEN-PPN Aki NOM-PPN Panay
'Aki made Panay very happy.'

b'. [**do'** (aki, Ø)] CAUSE [BECOME **happy'** (panay)]

- c. Pa-ka-nga'ay k-u-ra ising t-u adada
CAU-KA-good NOM-CN-that doctor DAT-CN ailment

isu.
2S.GEN
'That doctor cured your ailment.' (Causative, AV)

c'. [**do'** (ising, Ø)] CAUSE [BECOME **good'** (adada)]

- d. Pa-ka-nga'ay-en k-u-ra adada!
CAU-KA-good-UV NOM-CN-that ailment
'Cure that ailment!'

d'. [**DO** (2S.GEN, [**do'** (2S.GEN, Ø)])] CAUSE [BECOME **good'** (adada)]

As illustrated in (5.17), the *pa-* version of one-place state predicates also shows up with the AV case frame (i.e. Nominative-Dative), while its UV counterpart has the Genitive-

¹⁶ There are two exceptions to this claim. First, the predicate is causativized by the UV marker *-en*, which will add a causer and the theme argument is the undergoer. Second, verbs such as *maroq* that have more than one meaning might be an exception. *Maroq* can mean 'live' and 'sit'. When appearing in the UV form, it can only mean 'sit' but not 'live'. In other words, this verb should have two lexical entries that can better account for its derivational behavior.

Nominative frame. In other words, the *pa-* predicates in (5.17a) and (5.17c) are also M-intransitive while those in (5.17b) and (5.17d) are M-transitive, with the causer serving as the actor and the causee as the undergoer. As one can see, while the *pa-* construction adds an actor for the otherwise M-intransitive state predicates, the derived verb is still M-intransitive, and it follows the AV pattern by default. However, as I will show in the discussion in Chapter 6, when *pa-* co-occurs with the volitative mood suffix *-aw*, it will follow the UV case pattern. This feature is different from verbs affixed with the AV markers *mi-*, *-um-*, and *ma-*, as these verbs still follow the AV pattern when suffixed with *-aw*.

5.1.4 Macrorole Assignment and Predicates with Three Core Arguments

As mentioned in Chapter 4, three-place predicates in Amis usually appear with *pa-*, and three groups of *pa-* verbs were discussed in that chapter: *pa-*, *pa-pi-*, and *pa-ka-*. For the first group, I have gone through the derivational possibilities of *pa-* + different types of roots and worked out the logical structures for each possibility. The macrorole assignment for each type of three-place predicate will be examined in this section.

The intriguing complexity about macrorole assignment for three-place predicates lies in the fact that their S-transitivity never equals to their M-transitivity, as there are three arguments in the logical structure but only at most two of them can be chosen to be macroroles. The competition of macrorole-hood exists in the two groups of potential undergoer participants, theme/patient and recipient/beneficiary/source/goal. According to the AUH in Figure 5.1, the default choice would be the theme/patient argument, since it is at the rightmost position of the hierarchy, and this is true in many languages, including English. Such languages follow the direct-object pattern and hence are referred

to as direct object languages. However, there are also languages that have the recipient/beneficiary argument as the default or only choice of the undergoer; these languages are primary object languages, as proposed by Dryer (1986). Still, there are languages that can allow both to be undergoers; that is, these languages allow variable linking to the undergoer from the argument position in the logical structure. Such languages may have an unmarked choice between them, and only choose the marked one under certain contexts or for certain verb types. The phenomena of dative shift or locative alternation in English can be viewed as examples for this type. Apparently, primary object languages present a marked pattern based on the AUH and need to be accounted for by a different undergoer selection principle. Hence, in Figure 5.1, we have seen two principles of undergoer selection (i.e. choosing the lowest ranking macrorole in LS and choosing the second highest ranking macrorole in LS). As reported in Guerrero Valenzuela and Van Valin (2004), languages tend to exhibit a mixed type, and the two principles of undergoer selection are both needed to account for such a mixed system.

There are two case frames that are found in the AV constructions of the three-place predicates. The nominative case always shows up with the actor. As for the other two arguments, there are two possibilities. First, they can both be marked by the dative case and thus form a “Nominative-Dative-Dative” case frame for three-place AV predicates. Second, it is also possible that the recipient/goal/beneficiary participant is marked by the preposition, while the theme/patient participant is marked by the dative case, and this will result in a “Nominative-Dative-Preposition” case frame. We will see examples of both case frames in the later discussion. Although there are three arguments in such predicates, there is only one macrorole (i.e. actor) in the AV construction; the two non-actor

arguments that are marked by the dative case or the preposition are non-macrorole arguments. Their non-macrorole status is proven by fact both the two arguments can be promoted to be an undergoer by means of the applicative construction, as illustrated in (5.18):

- (5.18)a. **Pa-nanum** cingra ci aki-an t-u-ra sayta.
 CAU-water 3S.NOM PPN Aki-DAT DAT-CN-that soda
 ‘He gave Aki that soda (to drink).’
- b. Cima k-u **pa-nanum-an** nira t-u-ra
 who.NOM NOM-CN CAU-water-LA 3S.GEN DAT-CN-that
 sayta?
 soda
 ‘Who did he ask to drink that soda?’
- c. U maan k-u **pa-nanum-an** nira ci
 NCM what NOM-CN CAU-water-LA 3S.GEN PPN
 aki-an?
 Aki-DAT
 ‘What did he ask Aki to drink?’

The sentences in (5.18b-c) exemplify a type of WH-Question, which is termed the nominal type, as the clause following the WH-word is preceded by the nominative case marker *ku*. There is a missing argument (i.e. a pivot) in this nominal clause, and this missing argument is co-referential with the WH-word. As I will show in Chapter 6, this missing argument has to be either an actor of an AV verb or an undergoer of a UV verb in that clause. As shown in the data, the missing argument of the applicative UV verb *pa-...-an* can be either the theme argument, as in (5.18b), or the recipient/beneficiary argument, as in (5.18c). The eligibility of being the target of an applicative construction shows that neither one of the dative NPs in (5.18a) is an undergoer.

Nevertheless, during the lexical phrase of linking, one of the two non-actor arguments can be linked to undergoer, of which the macrorolehood is removed by the argument modulation function of the actor voice construction.¹⁷ As both non-actor arguments are marked in the same way (i.e. by the dative case) in the AV construction of a three-place predicate, it is difficult to tell which argument is the default choice of the undergoer in Amis during the lexical linking phrase of these three-place predicate. The only clue lies in the in the plain UV constructions of the three-place predicates, as only one of two non-actor NPs can be selected as the undergoer in the UV constructions, and this undergoer NP will be marked by the nominative case. In the following discussion, I will show that Amis also displays a mixed system regarding the selection of the undergoer, as different three-place predicates may have different default choices of undergoer in the UV constructions. However, Amis seems to behave more like a primary object language. In fact, the primary object pattern is the only pattern that is found with the *pa-pi-* verbs.

5.1.4.1 *Pa-* + Transfer Roots

We will first look into the Amis counterparts for English *give*, *borrow/lend*, *buy/sell*. These three-place predicates are all derived from a root that is inherently ditransitive (i.e. having three core arguments), though not all of them can be realized as direct core argument. Except for *pa-fli* ‘give’, the rest of these verbs are all derived by affixing *pa-* to a transfer root, and the derived predicate depicts the transfer event with a different perspective regarding the source as the initiator of the causing event. As three-place predicates have a causative operator (i.e. CAUSE) in the LS by default, attaching *pa-* to a

¹⁷ Although the possibility to mark the recipient/goal/beneficiary argument with the preposition seems to imply a less important status of this argument, it is not necessarily this case for every three-place predicate, as we will see later in the discussion.

transfer root makes a causal chain in the LS, one is contributed by the its own CAUSE operator and the other one from *pa-*. This has been mentioned this in Chapter 4. Their logical structures are given again in (5.19):

- (5.19)a. Pa-fli Ø-ci mayaw ci aki-an t-u
CAU-give NOM-PPN Mayaw PPN Aki-DAT DAT-CN

paysu
money
'Mayaw is going to give money to Aki.' (AV)

a'. [**do'** (mayaw, Ø)] CAUSE [BECOME **not.have'** (mayaw, paysu) & BECOME **have'** (aki, paysu)]
- b. Mi-qaca kaku t-u cudad sa-pa-fli
AV-buy 1S.NOM DAT-CN book InA-CAU-give

t-u wawa
DAT-CN child
'I am buying the book to give it to the child.'
'I am going to buy this book and give it to the child.'
- b'.[**do'** (kaku, Ø)] CAUSE [BECOME NOT **have'** (y, cudad) & BECOME **have'** (wawa, cudad)]¹⁸
- c. Pa-qaca k-u-ra wawa t-u hana
CAU-buy NOM-CN-that child DAT-CN flower

t-u-ra kaying.
DAT-CN-that young.lady
'That child sold flowers to that lady.' (AV)
- c'. [**do'** (wawa, Ø)] CAUSE [[**do'** (kaying, Ø)] CAUSE [BECOME NOT **have'** (wawa, hana) & BECOME **have'** (kaying, hana)]]
- d. Mi-caliw kaku i widang t-u paysu
AV-borrow 1S.NOM PREP friend DAT-CN money
'I am going to borrow money from (the) friends.'
- d'. ...[**do'** (kaku, Ø)] CAUSE [BECOME NOT **have'** (widang, paysu) & BECOME **have'** (kaku, paysu)]

¹⁸ This is a simplified version of the LS of this sentence. It only shows the LS of *qaca* 'buy'; the semantic representations of *mi-* and *sa-pa-fli* 'use (something) to give to someone' are not provided in the LS. Such simplified style of representation will be adopted throughout this section.

- e. Pa-caliw Ø-ci panay ci aki-an t-u
CAU-borrow NOM-PPN Panay PPN Aki-DAT DAT-CN

paliding.

car

‘Panay lent the car to Aki.’ (AV)

- e’. [**do’** (panay, Ø)] CAUSE [[**do’** (aki, Ø)] CAUSE [BECOME NOT **have’** (panay, paliding) & BECOME **have’** (aki, paliding)]]

Two observations can be generalized from (5.19). First, for the *mi*- version of the three-place predicate, while the theme participant is marked by the dative case, the recipient/source participant is either left out or marked by the preposition. This indicates that the theme participant is coded as a direct core argument, while the recipient/source argument is treated more like an oblique core argument. This marking thus implies a more important semantic status of the theme participant, and thus it should be chosen as the undergoer in the UV construction. This is exactly what one can find in the data, as shown in (5.20):

- (5.20)a. Ma-qaca n-u-ra kaying **k-u** **hana**
UV-buy GEN-CN-that young.lady NOM-CN flower

n-i panay
GEN-PPN Panay

‘That lady bought Panay’s flower.’

- a’. [**do’** (kaying, Ø)] CAUSE [BECOME NOT **have’** (panay, hana) & BECOME **have’** (kaying, hana)]

- b. *Ma-qaca n-u-ra kaying k-u hana
UV-buy GEN-CN-that young.lady NOM-CN flower

i ci panay-an/t-u-ra wawa
PREP PPN Panay-DAT/DAT-CN-that child

‘That lady bought flower from Panay/that child’

- c. *Ma-qaca n-u-ra kaying t-u hana
 UV-buy GEN-CN-that young.lady NOM-CN flower
 Ø-ci panay/k-u-ra wawa
 NOM-PPN Panay/NOM-CN-that child
 ‘That lady bought flower from Panay/that child’
- d. Aka qaca-en k-u hana n-u-ra wawa/
 NEG.IMP buy-UV NOM-CN flower GEN-CN-that child
 *t-u-ra wawa
 DAT-CN-that child
 ‘Don’t buy that kid’s flower!’
- d’.DO (x, [**do**’ (x, Ø)] CAUSE [BECOME NOT **have**’ (wawa, hana) & BECOME **have**’ (x, hana)]¹⁹

As seen in the UV form of *qaca* ‘buy’, only the theme argument can serve as the undergoer, and hence the PSA in the UV sentence; the source participant can only appear as the possessor of the theme in the genitive case (e.g. (5.20d)). This is exactly what the AUH in Figure 5.1 predicts. One more example from *caliw* ‘borrow’ is provided below:

- (5.21)a. Ma-caliw n-i aki **k-u** **paliding** n-i
 UV-borrow GEN-PPN Aki NOM-CN car GEN-PPN
 panay
 Panay
 ‘Aki borrowed Panay’s car.’
- a’. [**do**’ (aki, Ø)] CAUSE [BECOME NOT **have**’ (panay, paliding) & BECOME **have**’ (aki, paliding)]
- b. *Ma-caliw n-i aki k-u paliding
 UV-borrow GEN-PPN Aki NOM-CN car
 i ci panay-an/t-u-ra singsi
 PREP PPN Panay-DAT/DAT-CN-that teacher
 ‘Aki borrowed the car from Panay/that teacher’

¹⁹ This is a simplified version of the LS for (5.20d); it only shows the agentive feature of *-en*; the other details of *-en* and the LS of the imperative negative word *aka* are omitted in the LS.

- c. Aka caliw-en **k-u** **paysu** n-u wawa!
 NEG.IMP borrow-UV NOM-CN money GEN-CN child
 ‘Don’t borrow the child’s money!’

c’. DO (x, [**do**’ (x, ∅)] CAUSE [BECOME NOT **have**’ (wawa, paysu) & BECOME **have**’ (x, paysu)]

However, the situation with the *pa-* verbs is complex. As indicated in (5.19a), (5.19b), and (5.19c), both the theme participant such as *hana* ‘flower’ in (5.19c) and the beneficiary/goal participant such as *kaying* ‘young lady’ in (5.19c) are marked by the dative case, which does not reveal much information about the relative importance of the two arguments. Notice that the beneficiary/goal participant can also be marked by a preposition in addition to the dative case, as illustrated in (5.22).

- (5.22)a. Pa-qaca kaku t-u cudad **i** **wawa.**
 CAU-buy 1S.NOM DAT-CN book PREP child
 ‘I sold the book to the child.’ (AV)
 ‘I went the child’s place to sell the book’ (AV)

a’. [**do**’ (kaku, ∅)] CAUSE [[**do**’ (wawa, ∅)] CAUSE [BECOME NOT **have**’ (kaku, cudad) & BECOME **have**’ (wawa, cudad)]] (for the first reading)

- b. Pa-caliw ∅-ci kacaw t-u paysu
 CAU-borrow NOM-PPN Kacaw DAT-CN money

i **singsi.**
 PREP teacher
 ‘Kacaw is going to lend the money to the teacher.’

b’. [**do**’ (kacaw, ∅)] CAUSE [[**do**’ (singsi, ∅)] CAUSE [BECOME NOT **have**’ (kacaw, paysu) & BECOME **have**’ (singsi, paysu)]]

Examples in (5.22) seem to suggest that the theme participant is more important than the recipient/goal participant as it is never marked by the preposition, and thus the theme NP is more likely to be chosen as the undergoer in the UV construction. However, this assumption does not hold for every *pa-* verb. For instance, for the verb *pa-fli* ‘give’, both

the recipient and the theme can be possible undergoers though the recipient seems to be a preferred choice, as shown in the following examples:

- (5.23)a. Ma-pa-fli aku t-u paysu Ø-ci
 UV-CAU-give 1S.GEN DAT-CN money NOM-PPN

mayaw.

Mayaw

‘I gave the money to Mayaw already.’

- a’. [do’ (aku, Ø)] CAUSE [BECOME **not.have**’ (aku, paysu) & BECOME **have**’ (mayaw, paysu)]

- b. Ma-pa-fli aku **k-u** **payau** *(i) ci
 UV-CAU-give 1S.GEN NOM-CN money PREP PPN

mayaw-an.

Mayaw-DAT

‘I gave the money to Mayaw.’

- c. Ma-pa-fli n-u singsi **k-u-ra** **wawa/**
 UV-CAU-give GEN-CN teacher NOM-CN-that child/

Ø-ci **dongi** t-u paysu.
 NOM-PPN Dongi DAT-CN money

‘The teacher gave that child/Dongi money.’

- d. ??Ma-pa-fli n-u singsi t-u-ra wawa/ci
 UV-CAU-give GEN-CN teacher DAT-CN-that child /PPN

dongi-an **k-u** **paysu.** (inconsistent)
 Dongi-DAT NOM-CN money

‘The teacher gave that child/Dongi money.’

- e. Aka pa-fli-en **k-u** **wawa!**
 NEG.IMP CAU-give-UV NOM-CN child
 ‘Don’t give to the child!’

- f. *Aka pa-fli-en **k-u** **waneng!**
 NEG.IMP CAU-give-UV NOM-CN sugar
 ‘Don’t give the candy!’

Examples in (5.23) indicate the possibilities for both the theme participant and the recipient participant to be marked by the nominative case in the UV construction.

However, the recipient seems to be a favored choice for this predicate based on the following observations. First, there seem to be more restrictions for the theme to serve as the undergoer. For example, the theme argument seems to prefer to appear after the verb if it is the undergoer, as seen in the comparison of (5.23b) and (5.23d); in (5.23d), the theme undergoer is placed as the end of the sentence, and the acceptability of this example is not as good as (5.23b), in which the theme undergoer appears after the verb. Second, it is the theme argument that is allowed to be left out in the sentence, not the recipient. This is exemplified in (5.23e-f).

However, unlike *pa-fli* ‘give’, *pa-qaca/pa-cakay* ‘sell’ can only select the theme argument as the undergoer, as illustrated in (5.24):

- (5.24)a. Ma-pa-cakay n-i aki **k-u** **futing** ci
 UV-CAU-buy GEN-PPN Aki NOM-CN fish PPN

ofad-an.

Ofad-DAT

‘Aki sold (other people’s) fish to Ofad.’

- a’. [**do**’ (aki, Ø)] CAUSE [[**do**’ (ofad, Ø)] CAUSE [BECOME NOT **have**’ (aki, futing) & BECOME **have**’ (ofad, futing)]]

- b. *Ma-pa-cakay n-i aki t-u futing Ø-ci
 UV-CAU-buy GEN-PPN Aki DAT-CN fish NOM-PPN

ofad.

Ofad

‘Aki sold (other people’s) fish to Ofad.’

- c. Ma-pa-qaca n-u-ra wawa **k-u** **hana**
 UV-CAU-buy GEN-CN-that child NOM-CN flower

t-u-ra kaying.

DAT-CN-that young.lady

‘That child sold flowers to that lady.’

- c’. [**do**’ (wawa, Ø)] CAUSE [[**do**’ (kaying, Ø)] CAUSE [BECOME NOT **have**’ (wawa, hana) & BECOME **have**’ (kaying, hana)]]

- d. *Ma-pa-qaca n-u-ra wawa t-u hana
 UV-CAU-buy GEN-CN-that child DAT-CN flower
- k-u-ra** **kaying.**
 NOM-CN-that young.lady
 ‘That child sold flowers to that lady.’
- e. *Ma-pa-qaca n-u-ra wawa **k-u-ra** **kaying**
 UV-CAU-buy GEN-CN-that child NOM-CN-that young.lady
- t-u hana.
 DAT-CN flower
 ‘That child sold flowers to that lady.’
- f. Ma-pa-qaca n-u-ra wawa **k-u** **hana i**
 UV-CAU-buy GEN-CN-that child NOM-CN flower PREP
- kaying.
 young.lady
 ‘That child sold flowers to that lady.’
- g. Pa-qaca-en n-u-ra wawa **k-u** **hana t-u-ra**
 CAU-buy-UV GEN-CN-that child NOM-CN flower DAT-CN-that
- kaying.
 young.lady
 ‘That child will sell the flowers to that young lady.’
- g’. DO (wawa, [**do**’ (wawa, Ø)] CAUSE [[**do**’ (kaying, Ø)] CAUSE [BECOME NOT **have**’ (wawa, hana) & BECOME **have**’ (kaying, hana)]]
- h. *Pa-qaca-en n-u-ra wawa t-u hana **k-u-ra.**
 CAU-buy-UV GEN-CN-that child DAT-CN flower NOM-CN-that
- kaying**
 young.lady
 ‘That child will sell the flowers to that young lady.’
- i. *Pa-qaca-en aku Ø-ci **aki/k-u** **wawa**
 PA-buy-UV 1S.GEN NOM-PPN Aki/NOM-CN child
- t-u cudad
 DAT-CN book
 ‘I will sell Aki/the child the book.’

As shown in (5.24), only the theme participant, such as *futing* ‘fish’ in (5.24a) and *hana* ‘flower’ in (5.24c), of *pa-qaca/pa-cakay* ‘buy’ can be marked by the nominative case in the UV constructions. That is, the UV sentences that have a nominative recipient/goal are not acceptable.

As for *pa-caliw* ‘lend’, similar to *pa-fli* ‘give’, it allows both possibilities regarding undergoer selection, but the theme seems to be the preferred choice. Examples follow:

- (5.25)a. Ma-pa-caliw n-i kacaw **k-u** **singsi**
 UV-CAU-borrow GEN-PPN Kacaw NOM-CN teacher

 t-u paysu.
 DAT-CN money
 ‘Kacaw lent the teacher money.’
- a’. [**do**’ (kacaw, Ø)] CAUSE [[**do**’ (singsi, Ø)] CAUSE [BECOME NOT **have**’ (kacaw, paysu) & BECOME **have**’ (singsi, paysu)]]
- b. Ma-pa-caliw ni kacaw **ku** **paysu**
 UV-CAU-borrow GEN-PPN Kacaw NOM-CN money

 i singsi.
 PREP teacher
 ‘Kacaw lent the money to the teacher.’
- c. *Ma-pa-caliw n-i kacaw t-u singsi
 UV-CAU-borrow GEN-PPN Kacaw DAT-CN teacher

k-u paysu.
 NOM-CN money
 ‘Kacaw lent the money to the teacher.’
- d. Aka pa-caliw-en **k-u** **singsi** t-u
 NEG.IMP CAU-borrow-UV NOM-CN teacher DAT-CN

 paysu.
 money
 ‘Don’t lend the teacher money.’
- d’. [DO (x, [**do**’ (x, Ø)] CAUSE [[**do**’ (singsi, Ø)] CAUSE [BECOME NOT **have**’ (x, paysu) & BECOME **have**’ (singsi, paysu)]]

- e. Aka pa-caliw-en k-u paysu t-u/i
 NEG.IMP CAU-borrow-UV NOM-CN money DAT-CN/PREP
 singsi.
 teacher
 ‘Don’t lend the money to the teacher.’
- f. Ma-pa-caliw n-i panay Ø-ci aki t-u
 UV-CAU-borrow GEN-PPN Panay NOM-PPN Aki DAT-CN
 paliding.
 car
 ‘Every time Panay lent the car to Aki....’ (some follow-up comment about Aki.)
- g. Pa-caliw-en n-i panay t-u paliding
 CAU-borrow-UV GEN-PPN Panay DAT-CN car
 Ø-ci aki.
 NOM-PPN Aki
 ‘Panay lent the car to Aki....’ (some follow-up comment about Aki.)

As shown in (5.25), although both recipient and theme arguments can be the undergoer in the UV construction, a special context is required for the recipient argument to serve as the undergoer (e.g. (5.25f-g)). This contextual requirement for the presence of an undergoer recipient suggests that theme participant is the preferred undergoer choice for this *pa-caliw* ‘lend’.

A similar observation is also found with *pa-luwad* ‘send’, which is derived from *pa-* + *luwad* ‘get up; rise; set off’. Relevant examples are given in (5.26):

- (5.26)a. Pa-luwad Ø-ci aki t-u tilid ci
 CAU-set.off NOM-PPN Aki DAT-CN letter PPN
 panay-an.
 Panay-DAT
 ‘Aki is going to send a letter to Panay.’
- a’. [do’ (aki, Ø)] CAUSE [do’ (tilid, [set.off’ (tilid)]) & BECOME be-at’ (panay, tilid)]

- b. Ma-pa-luwad tu n-i aki **k-u** **tilid** ci
 UV-CAU-set.off Asp GEN-PPN Aki NOM-CN letter PPN
- panay-an.
 Panay-DAT
 ‘Aki sent a letter to Panay.’
- c. Pa-luwad-en n-i aki **k-u-ni** **tilid** ci
 CAU-set.off-UV GEN-PPN Aki NOM-CN-this letter PPN
- panay-an.
 Panay-DAT
 ‘Aki will send this letter to Panay.’
- d. *Pa-luwad-en n-i aki t-u-ni **tilid**
 CAU-set.off-UV GEN-PPN Aki DAT-CN-this letter
- Ø-ci **panay.**
 NOM-PPN Panay
 ‘Aki will send this letter to Panay.’
- e. Ma-pa-luwad tu n-i aki t-u **tilid**
 UV-CAU-set.off Asp GEN-PPN Aki DAT-CN letter
- Ø-ci **panay_i** awa ho k-u pacawi
 NOM-PPN Panay NEG.exist ASP NOM-CN answer
- nira_i
 3S.GEN
 ‘Aki sent a letter to Panay, but has no her reply yet.’
 (The first clause is unacceptable if there is no follow-up comment.)

The sentences in (5.26) show that, in spite of allowing two possible undergoer choices, the theme argument seems to be the default choice. The recipient argument only serves as the undergoer in specific contexts such as the one provided in (5.26e), but this contextual requirement is not necessary for the theme argument to be chosen as the undergoer. Moreover, the UV form *pa-luwad-en* only selects the theme to be the undergoer, but not the recipient.

So far, two patterns of undergoer selection in the (plain) UV constructions of the three-place predicates have been found in the above discussion. One follows the default choice (Principle A) based on the AUH, while the other has both the default and the marked choices (Principles A and B) for the undergoer. The first pattern is exemplified by the UV forms of *pa-qaca/pa-cakay* ‘sell’, which prefers to have a theme-undergoer, while the second one is illustrated in the UV constructions of *pa-fli* ‘give’, *pa-caliw* ‘lend’, *pa-luwad* ‘send’, which can have either theme or recipient as the undergoer. The above discussion indicates that Amis, similar to the languages discussed in Guererro Valenzuela and Van Valin (2004), exhibits a mixed type regarding the undergoer selection and will need more than one principle to account for the undergoer selection patterns. More three-place predicates will be examined in the following sections.

5.1.4.2 *Pa-* + Roots of Different Categories

Recall that in the earlier discussion, I have mentioned that when *pa-* attaches to a root that designates an object or an entity, it generates a reading of “cause to have”.

Consider the following:

- (5.27)a. Ma-na’ay kaku pa-nanum t-u/i sayta.
 NEUT-reluctant 1S.NOM CAU-water DAT-CN/PREP soda
 ‘I don’t want to add water into the soda.’
 * ‘I don’t want to add soda (to something).’
- b. Pa-dateng kaku t-u lafang.
 CAU-vegetable 1S.NOM DAT-CN guest
 ‘I serve the guests dishes.’

As shown in (5.27), usually, the theme participant can be omitted in the sentence, especially when it is non-referential and shares the same meaning with the root form (e.g. *nanum* in (5.27a) and *dateng* in (5.27b)). The logical structure of this set of predicates

can be represented as [**do'** (x, Ø) CAUSE BECOME **have.** i' (y, z_i)]; in this logical structure, the y argument is usually denoted by the noun same as the root.

In the UV construction, it is usually the recipient (i.e. the y argument) that is chosen to be the undergoer, though the theme may be a possible choice with some restrictions:

- (5.28)a. Ma-pa-nanum tu n-i ina t-u sayta
 UV-CAU-water ASP GEN-PPN mother DAT-CN soda

Ø-ci **mama.**
 NOM-PPN father
 'Mother gave soda for Father to drink.'

a'. [**do'** (ina, Ø)] CAUSE BECOME **have.water'** (mama, sayta)]²⁰

- b. *Ma-pa-nanum tu n-i ina ci mama-an
 UV-CAU-water ASP GEN-PPN mother PPN father-DAT

k-u **sayta.**
 NOM-CN soda
 'Mother gave soda for Father to drink.'

- c. Pa-nanum-en n-i ina t-u sayta
 CAU-water-UV GEN-PPN mother DAT-CN soda

Ø-ci **mama.**
 NOM-PPN father
 'Mother gave soda for Father to drink.'

c'. [DO (ina, [**do'** (ina, Ø)])] CAUSE BECOME **have.water'** (mama, sayta)]

- d. *Pa-nanum-en n-i ina **k-u** **sayta** ci
 CAU-water-UV GEN-NCN mother NOM-CN soda PPN

mama-an.
 father-DAT
 'Mother will give Father the soda to drink.'

²⁰ To simplify the discussion, the LS of *ma-* (active accomplishment, UV) is not represented in the LS of the *ma-* UV construction of the three-place predicates. As for the *-en* UV constructions of these predicates, only the agentive feature of *-en* will be specified. The addition or omission of the logical structures of *ma-* and *-en* will not affect the ranking of the arguments in the LS.

e. Ma-pa-nanum tu n-i ina **k-u** **sayta**
 UV-CAU-water ASP GEN-PPN mother NOM-CN soda

i wawa.
 PREP child

‘Mother gave soda for the child to drink.’

e’. [**do’** (ina, Ø)] CAUSE BECOME **have.water’** (wawa, sayta)]

f. Pa-nanum-en n-i ina **k-u** **sayta**
 CAU-water-UV GEN-PPN mother NOM-CN soda

i wawa.
 PREP child.

‘Mother gave soda for the child to drink.’

f’. [DO (ina, [**do’** (ina, Ø)]) CAUSE BECOME **have.water’** (wawa, sayta)]

g. *Pa-nanum-en n-i ina **k-u** **sayta**
 CAU-water-UV GEN-PPN mother NOM-CN soda

t-u wawa.
 DAT-CN child.

‘Mother gave soda for the child to drink.’

h. Pa-nanum-en **k-u** **sayta** t-u nanum!
 CAU-water-UV NOM-CN soda DAT-CN water

‘Add water to the soda!’

h’. [DO (x, [**do’** (x, Ø)])] CAUSE [BECOME **have.water’** (sayta, water)]

i. *Pa-nanum-en **k-u** **nanum** i sayta!
 CAU-water-UV NOM-CN water PREP soda

‘Add the water to the soda!’

The examples in (5.28) indicate that there is no problem when the recipient participant (i.e. the second highest ranking argument in the LS, such as *mama* ‘father’ in (5.28a) and *sayta* ‘soda’ in (5.28h)) serves as the undergoer in the UV form. However, there seems to be some restriction for the theme argument (i.e. the lowest ranking argument in the LS, such as *sayta* ‘soda’ in (5.28a) and *nanum* ‘water’ in (5.28h)) to be an undergoer. As we can see in (5.28f), the recipient has to be marked by the preposition instead of the dative case when the theme is chosen to be the undergoer. In other words, the recipient

argument has to be treated as an oblique or adjunct-like when the theme serves as the undergoer. However, informants do not agree amongst themselves regarding this structure, as the sentence with an identical structure in (5.28i) is not acceptable. It looks like when *pa-* attaches to a root denoting an object or an entity, the recipient argument is a preferred choice of the undergoer, which follows Principle B in the AUH.

Now, let us consider the situation when *pa-* attaches to a root that denotes an activity. As mentioned in Chapter 4, the derived meaning is ‘cause to do the activity’ (i.e. [**do**’ (x, \emptyset)] CAUSE [**do**’ (y, [**pred**’ (y, (z)))]). However, there involve some complexities regarding the derived interpretations and the undergoer choice of such three-place predicates.

To begin with, the causee argument (i.e. the argument of **do**’ after CAUSE) is the preferred undergoer if the derived verb has the plain “cause to do” reading. Similar to the situation found in *pa-* + object root illustrated in (5.28f), the patient argument (i.e. the second argument of **pred**’ after CAUSE) can only be undergoer when the causee is marked by the preposition. This is exemplified by *pa-nengneng* ‘show; let see’ (i.e. CAUSE BECOME **do**’ (x, [**see**’ (x, y)))]²¹ in (5.29).

- (5.29)a. Pa-neneneng kaku t-u-ni-ni a tilid ci
 CAU-see 1S.NOM DAT-CN-this-RED LNK letter PPN
- sawmah-an.
 Sawmah-DAT
 ‘I am going to show the letter to Sawmah.’

a’. [**do**’ (kaku, \emptyset)] CAUSE [BECOME **do**’ (aki, [**see**’ (aki, tilid)])]

²¹ There is no clear lexical distinction between ‘watch’ and ‘see’ in Amis; both meanings are denoted by the root form *nengneng*. However, it seems the meaning of *nengneng* is closer to ‘watch’ (i.e. **do**’ (x, [**see**’ (x, y)))]), as *nengneng* is analyzed an activity root with strong agentive implicature based on its performance in the {paka-} test mentioned in Chapter 4. Hence, the **do**’ is retained in the LS of *pa-nengneng*.

- b. Pa-neneneng kaku t-u ising.
CAU-see 1S.NOM DAT-CN doctor
'I am going to let the doctor see (me).'
- b'. [**do'** (kaku, Ø)] CAUSE [BECOME **do'** (ising, [**see'** (ising, z)])]
- c. Pa-nengneng-en **kaku** t-u-ni impic!
CAU-see-UV 1S.NOM DAT-CN-this pencil
'Let me see the pencil!'
- c'. DO (x, [**do'** (x, Ø)] CAUSE BECOME [**do'** (kaku, [**see'** (kaku, impic)])]
- d. *Pa-nengneng-en **k-u-ni** **impic!**
CAU-see-UV NOM-CN-this pencil
'Let (someone) see the pencil!'
- e. Ma-pa-nengneng aku **k-u-ni-ni**²² i wawa.
UV-CAU-see 1S.GEN NOM-CN-this-RED PREP child
'I showed this to the child.'
- e'. [**do'** (kaku, Ø)] CAUSE BECOME [**do'** (wawa, [**see'** (wawa, kuni)])]
- f. *Ma-pa-nengneng aku t-u wawa
UV-CAU-see 1S.GEN DAT-CN child

k-u-ni-ni.
NOM-CN-this- RED
'I showed this to the child.'
- g. Pa-nengneng-en aku **k-u-ni-ni** i wawa.
CAU-see-UV 1S.GEN NOM-CN-this-RED PREP child
'I will show this to the child.'

g'. DO (aku, [**do'** (kaku, Ø)] CAUSE BECOME [**do'** (wawa, [**see'** (wawa, kuni)])]

The examples in (5.29) indicate that the verb *pa-nengneng* 'show' seems to prefer to have the causee (i.e. the second highest ranking argument in the LS, such as *kaku* in (5.29c)) as the undergoer though the patient argument (i.e. the lowest highest ranking argument in the LS, such as *kunini* in (5.29e)) is also possible undergoer choice, especially when the causee is marked by the preposition.

²² The reduplication indicates emphasis.

The preference to have the second highest ranking argument as the undergoer can also be observed in the UV forms of *pa-ka'en* ‘feed’ in (5.30) and *pa-radiw* ‘teach to sing’²³ in (5.31):

- (5.30)a. Aka pa-ka'en-en t-u futing **cingra!**
 NEG.IMP CAU-eat-UV DAT-CN fish 3S.NOM
 ‘Don’t feed him fish.’ or ‘Don’t give him fish to eat!’

a'. [DO (x, [**do'** (x, Ø))]] CAUSE BECOME [**do'** (cingra, [**eat'** (cingra, futing))]

- b. Ma-pa-ka'en aku Ø-ci **panay.**
 UV-CAU-eat 1S.GEN NOM-CN Panay
 ‘I (already) let Panay eat.’

b'. [**do'** (x, Ø)] CAUSE BECOME [**do'** (panay, [**eat'** (panay, z)])]

- c. Pa-ka'en-en aku **k-u kulong t-u**
 CAU-eat-UV 1S.GEM NOM-CN water.buffalo DAT-CN

rengos.

grass

‘I will feed the water buffalos grass.’

- c'. DO (aku, [**do'** (aku, Ø)] CAUSE BECOME [**do'** (kulong, [**eat'** (kulong, rengos)])]

- d. *Pa-ka'en-en aku t-u kulong **k-u**
 CAU-eat-UV 1S.GEM DAT-CN water.buffalo NOM-CN

rengos.

grass

‘I will feed the water buffalos grass.’

As shown in the UV forms of *pa-ka'en* ‘feed’, the undergoer is always the causee (i.e. the second highest argument in the LS). The verb *pa-radiw* ‘teach to sing; cause to sing’ exemplified in (5.31) exhibits the same phenomenon:

²³ The predicate *pa-radiw* has two interpretations: “sing a song for someone” and “teach to sing”. The first reading is related to the fact that the root form *radiw* denotes an object “song”, and hence its *pa-* form also has the reading of “cause to have a song”.

- (5.31)a. Pa-radiw-en n-i ina **k-u** **wawa**
CAU-song-UV GEN-PPN mother NOM-CN child
- t-u sa-ka-lingad a radiw.
DAT-CN InA-KA-plow LNK song
‘Mother will teach the child to sing the plowing song.’
- a’. [DO (ina, [**do**’ (ina, Ø)])] CAUSE BECOME [**do**’ (wawa, [**sing**’ (wawa, sakalingad a radiw)])]
- b. *Pa-radiw-en n-i ina t-u wawa
CAU-song-UV GEN-PPN mother DAT-CN child
- k-u** **sa-ka-lingad** **a** **radiw.**
NOM-CN InA-KA-plow LNK song
‘Mother will teach the child to sing the plowing song.’
- c. Ma-pa-radiw n-i ina **k-u** **wawa**
UV-CAU-song GEN-PPN mother NOM-CN child
- t-u sa-ka-lingad a radiw
DAT-CN InA-KA-plow LNK song
‘Mother taught the child to sing the plowing song.’
- c’. [**do**’ (ina, Ø)] CAUSE BECOME [**do**’ (wawa, [**sing**’ (wawa, sakalingad a radiw)])]
- d. *Ma-pa-radiw n-i ina t-u wawa
UV-CAU-song GEN-PPN mother DAT-CN child
- k-u** **sa-ka-lingad** **a** **radiw.**
NOM-CN InA-KA-plow LNK song
‘Mother taught the child to sing the plowing song.’
- e. Ma-pa-radiw n-i ofad inacila i tamianan
UV-CAU-song GEN-PPN Ofad yesterday PREP 1P.Excl.DAT
- k-u-ni** **a** **radiw.**
NOM-CN-this LNK song
‘Ofad asked us to sing this song yesterday.’
- e’. [**do**’ (ofad, Ø)] CAUSE BECOME [**do**’ (tamianan, [**sing**’ (tamiana, kuni a radiw)])]

f. ??Pa-radiw-en n-i ofad i tamianan
 CAU-song-UV GEN-PPN Ofad PREP 1P.Excl.DAT

k-u-ni **a** **radiw.**
 NOM-CN-this LNK song
 ‘Ofad asked us to sing this song.’

f'. [DO (ofad, [**do'** (ofad, Ø)])] CAUSE BECOME [**do'** (tamianan, [**sing'** (tamiana, kuni a radiw)])]

We can also find the preference of the second highest ranking argument to be the undergoer in the UV forms of *pa-radiw*. Although the lowest ranking argument is also a possible choice, it is less preferred, as indicated in (5.31f). The above examples illustrate the situation that when the derived *pa-* verbs have the logical structure [**do'** (x, Ø)] CAUSE [**do'** (y, [**pred'** (y, z)])], the second highest ranking argument (y) in the LS is the unmarked undergoer choice in the UV constructions.

Nevertheless, some of the derived *pa-* verbs may involve more than just a causative activity; it may add a location in which the caused event happens, or it may add a beneficiary who is offered something to perform this caused activity. The first possibility is exemplified by the predicate *pa-tangtang* ‘cause something to be cooked at a certain place’, which is derived from the root *tangtang* ‘cook; steam’ and *pa-camul* ‘cause to add into or join’, derived from *camul* ‘add; join’. For such examples, the patient/theme argument (i.e. the lowest ranking argument in the LS) such as *hemay* ‘rice’ in (5.32) and *tefoq* ‘bamboo shoot’ in (5.33b) will be the undergoer in the UV construction, not the location. Examples follow:

(5.32)a. Mi-tangtang kaku t-u hemay
 AV-cook 1S.NOM DAT-CN rice
 ‘I am cooking the meal.’
 ‘I am going to cook the meal.’

- b. Ma-tangtang k-u hemay.
 NEUT-cook NOM-CN rice
 ‘The rice is cooking.’
- c. Pa-tangtang Ø-ci panay ci aki-an t-u hemay.
 CAU-cook NOM-PPN Panay PPN Aki-DAT DAT-CN rice
 ‘Panay went to Aki’s place to cook the rice.’ (AV)
 *‘Panay made Aki cook rice.’
- c.’ [do’ (panay, Ø)] CAUSE [BECOME **be-at’** (aki, hemay) PURP **do’** (x, [cook’ (panay, hemay)])]
- d. Ma-pa-tangtang n-i panay ci aki-an **k-u**
 UV-CAU-cook GEN-PPN Panay PPN Aki-DAT NOM-CN

hemay
 rice
 ‘Panay brought the rice to Aki’s place to cook.’
- e. Pa-tangtang-en n-i panay ci aki-an **k-u**
 CAU-cook-UV GEN-PPN Panay CN Aki-DAT NOM-CN

hemay.
 rice
 ‘Panay brought the rice to Aki’s place to cook (as planned).’
- (5.33)a. Mi-pa-camul kaku t-u tefoq i
 AV-CAU-add 1S.NOM DAT-CN bamboo.shoot PREP

 dateng
 vegetable
 ‘I am going to add bamboo shoot into the dish.’
- a’. [do’ (kaku, Ø)] CAUSE [BECOME **be-in’** (dateng, tefoq)]²⁴
- b. Ma-pa-camul aku **k-u** **tefoq** i/
 UV-CAU-add 1S.GEN NOM-CN bamboo.shoot PREP/

 ??t-u dateng.
 DAT-CN dish
 ‘I added the bamboo shoot to the dish.’

²⁴ The semantic representation of *mi-* is omitted in this LS.

b'. ??Ma-pa-camul aku **k-u** **dateng** t-u
 UV-CAU-add 1S.GEN NOM-CN vegetable DAT-CN

tefoq
 bamboo.shoot
 'I added bamboo shoot into the dish.'

c. Aka pa-camul-en **k-u** **nanum** i/
 NEG.IMP CAU-add-UV NOM-CN water PREP/

??t-u sayta.²⁵
 DAT-CN soda
 'Don't add the water into the soda.'

c'. [**do'** (x, Ø)] CAUSE [BECOME **add-in'** (sayta, nanum)]

d. *Aka pa-camul-en t-u nanum **k-u** **sayta!**
 NEG.IMP CAU-add-UV DAT-CN water NOM-CN soda.
 'Don't add the water into the soda.'

e. Ma-pa-camul n-i mayaw **k-u-ra**
 UV-CAU-add GEN-PPN Mayaw NOM-CN-that

pyuma i/t-u amis.
 Puyuma.man PREP/DAT-CN Amis.man
 'Mayaw had that Puyuma man join the Amis people.'

e'. [**do'** (mayaw, Ø)] CAUSE [BECOME **add-in'** (amis, pyuma)]

f. ??Ma-pa-camul n-i mayaw t-u-ra
 UV-CAU-add GEN-PPN Mayaw DAT-CN-that

pyuma **k-u** **amis.**
 Puyuma.man NOM-CN Amis.man
 'Mayaw had that Puyuma man join the Amis people.'

As shown above, the second highest ranking arguments in the logical structures of *pa-tangtang* and *pa-camul* are the first argument of **be-loc'**, and this argument is never chosen to be the undergoer in the UV constructions. The only undergoer choice is the lowest ranking argument in the LS.

²⁵ Although this sentence seems very similar to *pa-nanum*, there is a subtle difference between the two. For *pa-nanum*, the interpretation is more like 'cause to have (water) (i.e. 'give' water)', but for *pa-camul*, the interpretation is more like 'cause to join/mix with (i.e. add into (something))'.

Another possible interpretation of *pa-* + an activity root is ‘cause to have something in order to perform the activity’. The example is given in (5.34):

- (5.34)a. Pa-kalat-en **k-u-ni!**
 CAU-bite-UV NOM-CN-this
 ‘Give (him/her) this to bite!’
- a’. [DO (x, [**do’** (x, Ø)])] CAUSE [BECOME **have’** (y, kuni) PURP [**do’** (y, [**bite’** (y, kuni)])]
- b. Pa-kalat-en Ø-ci **panay!**
 CAU-bite-UV NOM-PPN Panay
 ‘Give Panay something to bite!’
- b’. [DO (x, [**do’** (x, Ø)])] CAUSE [BECOME **have’** (panay, z) PURP [**do’** (panay, [**bite’** (panay, kuni)])]

For this type of causative activity, both the lowest ranking argument and the second highest ranking argument can be possible undergoers. The three possible derivations of *pa-* + an activity root are summarized in Table 5.5:

Table 5.5 The Possible Undergoer Selection Patterns of *pa-* + Activity Root

Role of Causee	Examples	Actor	Undergoer
effector	<i>pa-adup</i> ‘bring to hunt’ <i>pa-radiw</i> ‘ask to sing’ <i>pa-nengneng</i> ‘let see’	causer	both, but the second highest ranking argument (i.e. Principle B) is default
theme (followed by a location)	<i>pa-tangtang</i> ‘bring sth to cook at a certain place’	causer	the lowest ranking argument (i.e. Principle A)
beneficiary/effector	<i>pa-kalat</i> ‘offer sth to bite’	causer	both

There are four possible interpretations when *pa-* attaches to a state root.²⁶ These interpretations and their undergoer selection patterns are given in Table 5.6:

²⁶ Some of the states roots, especially the result states may seem like accomplishment.

Table 5.6 The Possible Undergoer Selection Patterns of *pa-* + State Root

Interpretation	Role of Causee	Examples	Actor	Undergoer
Type (a) cause to have	beneficiary (or possessor)	<i>pa-kuhting-en</i> ‘cause to add a little black color’	causer	the second highest ranking argument in LS (i.e. Principle B)
Type (b) cause to have in order to become	beneficiary (or possessor)/theme	<i>pa-takaraw-en</i> ‘cause to stuff something to make it taller’	causer	the second highest ranking argument in LS (i.e. Principle B)
Type (c) cause to become for someone	theme (followed by a beneficiary or possessor)	<i>pa-cinas-en</i> ‘cause to tear something and give a portion to someone’	causer	the second highest ranking argument in LS (i.e. Principle B)
Type (d) cause to become	theme	<i>pa-cinas-en</i> ‘cause to tear something’	causer	the lowest ranking argument in LS (i.e. Principle A)

Types (a) and (b) are more frequently found with the attribute/non-episodic state, while Types (c) and (d) appear more often with the result state (or accomplishment) roots. As summarized in Table 5.6, it is noticed that when there is a beneficiary argument present in the derived *pa-* verb, the beneficiary will be chosen to be the undergoer; otherwise, it is the theme that will be selected as the undergoer. Examples are given below:²⁷

- (5.35)a. Pa-cinas-en Ø-ci aki t-u kami!
 CAU-tear-UV NOM-PPN Aki DAT-CN paper
 ‘Tear the paper apart and give Aki a portion!’ (= type (c))

a’. [DO (x, [do’ (x, Ø)])] CAUSE [BECOME **torn’** (kami) PURP [BECOME **have’** (aki, kami)]]

- b. ??Pa-cinas-en k-u kami ci aki-an!
 CAU-tear-UV NOM-CN paper PPN Aki-DAT
 ‘Tear the paper apart and give a portion to Sawmah.’ (= type (c))

- c. Pa-cinas-en k-u kami!
 CAU-tear-UV NOM-CN paper
 ‘Tear the paper!’ (= type (d))

c’. [DO (x, [do’ (x, Ø)])] CAUSE [BECOME **torn’** (kami)]

²⁷ As seen in Table 5.6 and in the following examples, these *pa-* forms often appear in the imperative mood. Strictly speaking, these imperative *pa-* forms involve a causal chain, in which the speaker is the ultimate causer of the first causing event, and then the listener is the causee of the first causing event as well as the causer of the second causative event. To simplify the discussion, I only discuss the second causing event in the imperative sentences.

- d. Pa-pecih-en **k-u** **wawa** t-u mantu!
 CAU-break.into.half-UV NOM-CN child DAT-CN steamed.bun
 ‘Break the steam bun into half and give one half to the child.’ (= type (c))
- d’. [DO (x, [**do**’ (x, Ø))]] CAUSE [BECOME **broken.into.half**’ (mantu)] PURP
 [BECOME **have**’ (wawa, mantu)]]
- e. ?Pa-pecih-en t-u wawa **k-u** **mantu**.
 CAU-break.into.half-UV DAT-CN child NOM-CN steamed.bun
 ‘Break the steam bun into half and give one half to the child.’ (= type (c))

As demonstrated in (5.35), when there is beneficiary (i.e. the first argument of BECOME **have**’, such as *aki* in (5.35a)) in the sentence, the beneficiary argument will be the preferred undergoer choice. The theme is the undergoer only when there is no beneficiary participant (e.g. (5.35c)) showing up in the sentence. Based on the logical structures of the examples in (5.35), we can see that both principles of undergoer selection are applicable. For sentences that have the beneficiary as the undergoer, they follow Principle B (i.e. the second highest ranking argument in LS), while for sentences with a theme undergoer, they abide by Principle A (i.e. the lowest ranking argument in LS).

The examples in (5.36) show another type of *pa-* + state root. In these examples, the theme and the beneficiary are denoted by the same participant, which is also the only choice of the undergoer in the UV construction:

- (5.36)a. Pa-takaraw-en k-u-ni!
 CAU-tall-UV NOM-CN-this
 ‘Stuff something under this and make it taller!’ (= type (b))
- a’. [**do**’ (x, Ø) CAUSE BECOME [**be-under**’ (kuni, y)] PURP [BECOME **tall**’ (kuni)]]

To sum up the above discussion, it seems that the undergoer selection of simple *pa-* verbs is subject to the thematic role of the causee and other arguments in the sentence. If

there is an effector or a beneficiary following CAUSE in the LS, they will be the default choice of the undergoer. This can be accounted for by the application of Principle B. If there is no such argument, the theme or patient argument following CAUSE will be the undergoer, which follows Principle A.

5.1.4.3 Undergoer Selection of *Pa-pi-* Predicates

The undergoer selection of *pa-pi-* is very regular. I have mentioned that *pa-pi-* is a combination of *pa-* + *mi-*; this analysis was also proposed in Starosta (1974). The meaning of *mi-* requires an agentive causee in the derived *pa-pi-* predicate. In other words, the logical structure of *pa-pi-* is “[**do**’ (x, Ø)] CAUSE [DO (y, ...)]”. It is always the argument of CAUSE DO (i.e. the y argument) that is chosen to be the undergoer in *ma-pa-pi-* and *pa-pi-...-en* sentences, but never others. This regularity has been reported in Starosta (1974) and Chen (1987). The following examples illustrate this pattern of *pa-pi-* with various types of root.

- (5.37)a. Pa-pi-nengneng-en n-i ina **k-u** **wawa**
 CAU-PI-see-UV GEN-PPN mother NOM-CN child
 t-u wacu.
 DAT-CN dog
 ‘Mother will ask the child to watch the dog.’
- a’. [DO (ina, [**do**’ (ina, Ø)])] CAUSE [DO wawa, [**do**’ wawa, [**see**’ (wawa, wacu)]]
- b. *Pa-pi-nengneng-en n-i ina t-u wawa
 CAU-PI-see-UV GEN-PPN mother DAT-CN child
 k-u **wacu.**
 NOM-CN dog
 ‘Mother will ask the child to watch the dog.’

- c. Ma-pa-pi-nengneng n-i ina **k-u** **wawa**
 UV-CAU-PI-see-UV GEN-PPN mother NOM-CN child

t-u wacu.
 DAT-CN dog
 ‘Mother asked the child to watch the dog.’

- c’. *Ma-pa-pi-nengneng n-i ina t-u wawa
 UV-CAU-PI-see GEN-PPN mother DAT-CN child

k-u **wacu.**
 NOM-CN dog
 ‘Mother asked the child to watch the dog.’

The examples in (5.37) illustrate the UV constructions of *pa-pi-* + an activity root *nengneng* ‘see; watch’. As shown in the data, it is the second highest ranking argument in the LS that is chosen to be the undergoer. The same principle is also adopted for *pa-pi-* + an object root, as exemplified in (5.38):

- (5.38)a. Ma-pa-pi-nanum n-i ina t-u sayta **k-u**
 UV-CAU-PI-water GEN-NCN mother DAT-CN soda NOM-CN

wawa.
 child
 ‘Mother asked someone to ask the child to drink soda.’

- a’. [**do’** (ina, ∅)] CAUSE DO (wawa, [**do’** (wawa, [**drink’** (wawa, sayta))])]

- b. *Ma-pa-pi-nanum n-i ina **k-u** **sayta**
 UV-CAU-PI-water GEN-NCN mother NOM-CN soda

t-u wawa.
 DAT-CN child
 ‘Mother asked someone to ask the child to drink soda.’

- b’. *Ma-pa-pi-nanum n-i ina t-u wawa
 UV-CAU-PI-water GEN-NCN mother DAT-CN child

k-u **sayta.**
 NOM-CN soda.
 ‘Mother asked someone to ask the child to drink soda.’

The sentences in (5.39) illustrate the undergoer selection of *pa-pi-* + a *pa-* predicate.

It is also the second highest ranking argument in the LS that is the undergoer in the corresponding UV sentences.

- (5.39)a. Pa-pi-pa-fli-en n-i sawmah **k-u-ra**
 CAU-PI-CAU-give-UV GEN-PPN Sawmah NOM-CN-that
- wawa** t-u flac t-u-ra singsi.
 child DAT-CN rice DAT-CN-that teacher
 ‘Sawmah asked that child to give rice to that teacher.
- a’. [DO (Sawmah, [**do’** (Sawmah, Ø)])] CAUSE DO (wawa, [**do’** (wawa, Ø)])
 CAUSE [BECOME **not.have’** (wawa, flac) & BECOME **have’** (singsi, flac)]
- b. *Pa-pi-pa-fli-en n-i sawmah t-u-ra
 CAU-PI-CAU-give-UV GEN-PPN Sawmah DAT-CN-that
- wawa **k-u** **flac** t-u-ra singsi.
 child NON-CN rice DAT-CN-that teacher
 ‘Sawmah asked that child to give rice to that teacher.
- c. *Pa-pi-pa-fli-en n-i sawmah t-u-ra
 CAU-PI-CAU-give-UV GEN-PPN Sawmah DAT-CN-that
- wawa t-u flac **k-u-ra** **singsi.**
 child DAT-CN rice NOM-CN-that teacher
 ‘Sawmah asked that child to give rice to that teacher.

The examples demonstrated above all show that only the argument of CAUSE DO can serve as the undergoer of *pa-pi-* predicates; this undergoer selection follows from Principle B.

The above-mentioned features (i.e. regular undergoer choice pattern and the jussive reading) of *pa-pi-* causatives are also found with *pa-ka-..-um-* verbs, which apparently are influenced by the meaning of *-um-*, which is represented as “**do’** (x, **pred’** (x, (y)))”. The examples are given below:

- (5.40)a. Pa-ka-c-um-ikay-en Ø-ci aki!
 CAU-KA-run-UM-UV NOM-PPN Aki
 ‘Ask Aki to run!’

a'. DO (x, [**do'** (x, Ø)]) CAUSE DO (aki, [**do'** (aki, [**run'** (aki)])])

- b. Pa-ka-r-um-di-w-en cingra!
 CAU-KA-song-UM-UV 3S.NOM
 ‘Recommend him to join the singing contest!’

b'. DO (x, [**do'** (x, Ø)]) CAUSE DO (cingra, [**do'** (cingra, [**sing'** (cingra, z)])])

- c. Ma-pa-ka-r-um-adiw ita cingra
 UV-CAU-KA-song-UM 1P.INCL.GEN 3S.NOM

t-u-ra radiw.
 DAT-CN-that song
 ‘We asked him to sing that song.’

c'. **do'** (ita, Ø)]) CAUSE DO (cingra, [**do'** (cingra, [**sing'** (cingra, radiw)])])

In spite of the rather regular pattern of undergoer choice, these verbs do display some peculiarities, for which I do not yet have a clear explanation. These special properties all seem to be related to the agentive requirement of the causee. To begin with, the informants do not accept *pa-pi-* sentences with a less agentive causee such as *wawa* ‘child’. For such a noun, it sometimes will be rendered as a patient (5.41a) instead of a causee/effector, and it may even be left out in the sentence (e.g. (5.41b-c)):

- (5.41)a. Pa-pi-nengneng Ø-ci ina t-u wawa.
 CAU-PI-see NOM-PPN mother DAT-CN child
 ‘Mother made (somebody) look at the child.’
 *‘Mother made the child look at something.’
- b. Pa-pi-ka'en Ø-ci ina t-u kunga.
 CAU-PI-eat NOM-PPN mother DAT-CN sweet.patato
 ‘Mother asked (people) to eat sweet potatoes.’
- b'. *Pa-pi-ka'en Ø-ci ina t-u wawa.
 CAU-PI-eat NOM-PPN mother DAT-CN child
 ‘Mother asked the child to eat (something).’

- c. *Pa-pi-ka'en Ø-ci ina t-u wawa
 CAU-PI-eat NOM-PPN mother DAT-CN sweet.patato
 t-u kunga.
 DAT-CN sweet.patato
 'Mother asked the child to eat sweet potatoes.'
- d. Pa-pi-ka'en Ø-ci ina t-u kunga
 CAU-PI-eat NOM-PPN mother DAT-CN sweet.patato
 ci aki-an.
 NOM Aki-DAT
 'Mother asked Aki to eat sweet potatoes.'
- e. Pa-pi-ka'en Ø-ci ina t-u kunga
 CAU-PI-eat NOM-PPN mother DAT-CN sweet.patato
 (i) takuwanan
 PREP 1S.DAT
 'Mother asked me to eat sweet potatoes.'

The examples in (5.41b) seem to imply that the causee argument is not as important as the patient argument, as it can be left out. However, this implication contradicts with the undergoer selection pattern we have found so far with *pa-pi-* verbs. It is not clear whether the idiosyncratic preference is due to the lack or a weaker degree of agentivity in a noun like *wawa* 'child', or this is due to some kind of voice operation in *pa-pi-* that makes the causee now an oblique argument or an adjunct. More investigation into this is therefore needed.

5.1.4.4 Undergoer Selection of *Pa-ka-* Predicates

Unlike the regularity that has been found in *pa-pi-* verbs, the undergoer selection with *pa-ka-* is more complicated, and it depends on the predicate types that *pa-ka-* attaches to. We have seen an example with *pa-ka-um-*, which behaves like *pa-pi-*. I will discuss more types in this section.

There are at least two types of reading that can be obtained from the *pa-ka-* construction, as discussed in Chapter 4. These interpretations are summarized in Table 5.7:

Table 5.7 The Interpretations of *pa-ka-*+ Root and Undergoer Selection Patterns

Interpretation	Sub-types	Source of <i>ka-</i>	Root Type	Role of Causee	Example
Type (a) cause to become	with a sense of “thoroughness”	<i>ma-</i> episodic or plain state	attribute state	theme	<i>pa-ka-kuhting-en</i> ‘make it all black’ (<i>kuhting</i> ‘black’)
	without a sense of “thoroughness”	<i>ma-</i> episodic or plain state	episodic or plain state	patient	<i>pa-ka-roray</i> ‘cause to become tired’ (<i>ma-roray</i> ‘tired’)
Type (b) cause to do		<i>ma-</i> activity	activity	effector	<i>pa-ka-tayal-en</i> ‘cause to do’ (<i>ma-tayal</i> ‘work’)

Most of the *pa-ka-...(-en)* predicates are two-place predicates, which have no undergoer selection problem. A few three-place predicates of these categories are discussed below.

The first one is *pa-ka-fanaq* ‘introduce; inform; teach’ in (5.42):

- (5.42)a. Pa-ka-fanaq kaku ci aki-an i
CAU-KA- knowledge 1S.NOM PPN aki-DAT PREP

ci panay-an/widang
PPN Panay-DAT/friend
‘I introduced Aki to Panay/a friend.’ (AV)

- a’. [**do**’ (kaku, Ø)] CAUSE [BECOME **know**’ (panay, aki)]

- b. Pa-ka-fanaq-en aku Ø-ci aki *(i)
PA-KA-knowledge-UV 1S.GEN NOM-PPN Aki PREP

ci panay-an
PPN Panay-DAT
‘I will introduce Aki to Panay.’

- c. Pa-ka-fanaq-en aku ci aki-an Ø-ci
PA-KA- knowledge-UV 1S.GEN PPN Aki-DAT NOM-PPN

panay.
Panay
‘I will introduce Aki to Panay.’

The data shows that both the second highest ranking (i.e. *Panay*) and the lowest ranking (i.e. *Aki*) arguments in the LS can be undergoer, though the AV form in (5.43a) seems to imply that lowest ranking argument is the default choice as the nouns *Panay* and *widang* ‘friend’ can be marked by the preposition *i*.

Finally, let us consider another example *pa-si-fanaq* ‘teach (i.e. cause to have knowledge)’, in which the prefix *si-* is a phonetic variant of *ci-*, meaning ‘have; grow’ (e.g. *ci-paysu* ‘have money’). The AV examples of *pa-si-fanaq* are given in (5.43):

- (5.43)a. Pa-si-fanaq k-u singsi t-u wawa
CAU-have-knowledge NOM-CN teacher DAT-CN child
- t-u n-u amis.²⁸
DAT-CN GEN-CN Amis
‘The teacher is going to teach the children Amis.’ (AV)

a’. [do’ (singsi, Ø)] CAUSE [BECOME **have.knowledge**] (wawa, nu amis)]

- b. Pa-si-fanaq k-u singsi t-u
CAU-have-knowledge NOM-CN teacher DAT-CN
- n-u amis i wawa.
NOM-CN Amis PREP child
‘The teacher is going to teach Amis to the children.’ (AV)

As shown in (5.43), the second highest ranking argument (i.e. wawa ‘child’) can be marked by the dative case or by the preposition, which implies that this NP can be treated as an oblique argument. However, as indicated in the UV constructions in (5.44), the second highest ranking argument in the LS is the only choice of undergoer:

- (5.44)a. Ma-pa-si-fanaq n-u singsi k-u
UV-CAU-have-knowledge GEN-CN teacher NOM-CN
- wawa t-u n-u amis.
child DAT-CN GEN-CN Amis
‘The teacher taught the children Amis.’

²⁸ The genitive phrase *nu amis* means something of Amis. Usually it refers to the language or the culture.

- a'. [**do'** (singsi, Ø)] CAUSE [BECOME **have.knowledge'** (wawa, nu amis)]
- b. *Ma-pa-si-fanaq n-u singsi t-u
 UV-CAU-have-knowledge GEN-CN teacher DAT-CN
- wawa **k-u** **n-u** **amis.**
 child NOM-CN GEN-CN Amis
 'The teacher taught the children Amis.'
- c. *Ma-pa-si-fanaq n-u singsi k-u
 UV-CAU-have-knowledge GEN-CN teacher NOM-CN
- n-u amis i wawa.
 GEN-CN Amis PREP child
 'The teacher taught Amis to the children.'
- d. Pa-si-fanaq-en n-u singsi **k-u** **wawa**
 CAU-have-knowledge-UV GEN-CN teacher NOM-CN child
- t-u n-u amis.
 DAT-CN GEN-CN Amis
 'The teacher will teach the children Amis.'
- d'. [DO (singsi, [**do'** (singsi, Ø)])] CAUSE [BECOME **have.knowledge'** (wawa, nu amis)]
- e. *Pa-si-fanaq-en n-u singsi t-u
 CAU-have-knowledge-UV GEN-CN teacher DAT-CN
- wawa **k-u** **n-u** **amis.**
 child NOM-CN GEN-CN Amis
 'The teacher will teach the children Amis.'
- f. *Pa-si-fanaq-en n-u singsi i wawa
 CAU-have-knowledge-UV GEN-CN teacher PREP child
- k-u** **n-u** **amis.**
 NOM-CN GEN-CN Amis
 'The teacher will teach the children Amis.'

As seen in (5.44), it is impossible for the lowest ranking argument in LS, *nu amis*

'(language) of Amis' in the example, to be the undergoer in the UV constructions, and it

does not matter whether the second highest ranking argument *wawa* 'child' is marked by

the dative case or by the preposition. In other words, this predicate follows Principle B in terms of undergoer selection.

The above discussion of undergoer selection patterns of *pa-* and related verbs shows that both Principles A and B on the AUH are required in Amis. It is difficult to generalize a pattern in which one single principle can cover all the situations for different types of verbs. The only regular pattern is found with *pa-pi-* verbs (and *pa-ka-um-* verbs), which always follow Principle B (i.e. the second highest ranking argument in LS) in undergoer selection. For other types of verbs, it may exhibit more flexibility. Interestingly, there seems to be a role hierarchy regarding such flexibility. That is, beneficiary (the first argument of **have'** after CAUSE) and effector (the first argument of **do'** after CAUSE) seem to enjoy more privilege over theme/patient participants when it comes to undergoer selection. Judging from this phenomenon, Amis seems to exhibit the features of a primary object language (Dryer 1986).

5.2 Case System and Case Assignment Rules

The case system of Amis has been briefly introduced in Chapter 3. In this section, more details concerning the forms and function of the case markers will be presented. In addition, the case assignment rules in Amis based on the RRG framework will also be postulated.

5.2.1 The Forms and Functions of the Case Markers

The case markers and noun classifiers are given again in Tables 5.8 and 5.9:

Table 5.8 Amis Case Markers

Nouns	Case Markers		
	Nominative	Genitive	Dative
Common Nouns	<i>k-</i>	<i>n-</i>	<i>t-</i>
Personal Proper Nouns	\emptyset		<i>-an</i>

Table 5.9 Amis Noun Classifiers

Nouns	Number	
	Singular	Plural
Common Nouns	<i>u</i>	
Personal Proper Nouns	<i>ci</i>	<i>ca</i>

There are two major analyses proposed in the previous studies concerning the case system in Amis. These two analyses can be exemplified respectively by the studies in Huang (1995) and Liu (1999).²⁹

Huang proposes a four-case system for Amis as shown in Table 5.10 (Huang 1995:226):

Table 5.10 Amis Case Markers (Huang 1995)

		cases			
		Neutral	Nominative	Locative/Accusative	Genitive
nouns					
Common		<i>u</i>	<i>ku</i>	<i>tu</i>	<i>nu</i>
Proper	Singular	<i>ci</i>	<i>ci</i>	<i>ci ...-an</i>	<i>ni</i>
	Plural	<i>ca</i>	<i>ca</i>	<i>ca ...-an</i>	<i>na</i>

As seen in Table 5.10, in Huang's (1995) analysis, there is a set of neutral case marker, which is also found in Chen's (1987) case system. This set of case markers refers to the case markers that usually appear clause-initially to mark a nominal predicate,³⁰ such as *u* in (5.45a) and *ci* in (5.45b), or a displaced common noun, as seen in (5.45c):

- (5.45) a. **U** singsi cingra.
 NCM teacher 3S.NOM
 'He is a teacher.'
- b. **Ci** sawmah kaku.
 NCM Sawmah 1S.NOM
 'I am Sawmah.'

²⁹ These studies are selected for a comparison because their analyses are based on the same Amis dialect investigated in this dissertation.

³⁰ This set is also referred to as predicate case in some studies.

- c. U fafahian a kaka ma-laluk, u
 NCM woman LNK older.sibling NEUT-diligent NCM
- fa'inayan a kaka ma-tuka.
 man LNK older.sibling NEUT-lazy
 'The older sister is diligent; the older brother is lazy.

Observing the morphological similarities shared among some of the case markers in Huang's system, such as *ku*, *tu*, *nu*, and *nu*, *ni*, *na*,³¹ Liu (1999) comes up with a rather different proposal. Her analysis is presented in Tables 5.11 and 5.12 (Liu 1999:35):³²

Table 5.11 Amis Case Markers (Liu 1999)

Case	Nominative	Locative/Accusative	Genitive
Marker	<i>k-</i>	<i>t-</i>	<i>n-</i>

Table 5.12 Amis Noun Classifier System (Liu 1999)

Noun		
Common	Non-common	
<i>u</i>	Singular	Plural
	<i>i</i>	<i>a</i>

Here we can see that Liu (1999) treats the "neutral case marker" set in Huang's analysis as a set of noun classifiers. That is, each case marker in Huang's analysis is treated as a complex morpheme composed of a case marker (e.g. *k-*) and a noun class marker (e.g. *u*) in Liu's proposal.

Although Liu's analysis better generalizes the morphological resemblances shared in some of the case markers in Amis, she also admits that her proposal suffers from the following problems (Liu 1999:35). First, she cannot explain why while the classifier for common nouns (i.e. *u*) can be used alone, the classifiers for non-common nouns have to appear with the consonant *c-*. Second, she cannot account for why the complexes for non-common nouns are *ci/ca*, *ni/na*, and *ci/ca ...-an* but not **ki/*ka*, *ni/na*, and **ti/*ta*.

³¹ In fact, Huang (1995) also notices the resemblances shared among the forms of the case markers.

³² Liu's analysis follows Chang et al.'s (1998) treatment for the case markers in Kavalan, another Formosan language.

That is, following her analysis, a desired system of the morphological complexes of case markers and noun classifiers would be similar to the one in Table 5.13:

Table 5.13 An “Ideal” System of Amis Case Markers Following Liu’s (1999) Analysis³³

cases number nouns		Nominative	Locative/Accusative	Genitive
Common		<i>k-u</i>	<i>t-u</i>	<i>n-u</i>
Proper	Singular	* <i>k-i</i> (<i>c-i</i>)	* <i>t-i</i> (<i>c-i...an</i>)	<i>n-i</i>
	Plural	* <i>k-a</i> (<i>c-a</i>)	* <i>t-a</i> (<i>c-a...an</i>)	<i>n-a</i>

Although Liu (1999: 34) tries to account for the formation of *ci/ca* from **ki/*ka* through a phonological process of palatalization that turns /k/ into /c/ when it appears before a high front vowel (i.e. /k/ + /i/ → /ci/), she still cannot offer a satisfactory account for the bound status of the noun classifiers *i* and *a*, and the non-existence of **ti/*ta*. Moreover, Liu’s explanation by means of palatalization is dubious, as the sound sequences /k/ + /i/ and /k/ + /a/ are both found in Amis (e.g. *kisu* ‘you (singular, nominative)’ and *kaku* ‘I’).

Liu’s basic idea is adopted in the analysis proposed in this dissertation with the following revisions. First, her “non-common noun” set of noun class markers is renamed as “personal proper noun” markers, as this set of markers is only used to mark personal names and kinship terms. They never appear before a non-human proper noun such as a place name (e.g. (5.46a)). They do however, appear before a name of an animal (e.g. (5.46b)), which might be due to the personification of the noun:

- (5.46)a. Ma-ulah kaku **t-u** **pusong.**
 AV-like 1S.NOM DAT-NCM Taitung
 ‘I like Taitung.’

³³ The asterisk “*” indicates the non-existing forms and the one in the parenthesis is the attested form.

b.	Ma-palu	n-i	mama	Ø-ci	aki	atu	Ø-ci
	UV-beat	GEN-NCM	father	NOM-NCM	Aki	and	NOM-NCM

kolo.

Kolo

‘Father beat Aki and Kolo (a dog’s name)’

Hence, the distinctions between the two sets of nouns should be common nouns and personal proper nouns. The second revision is concerned with the personal proper noun markers. As mentioned, Liu’s proposal only works well with the common noun sets but not the non-common nouns. Though she attempts to solve the problems from phonological grounds, her solution is still unsatisfactory. As an alternative, I propose to treat the consonant *c-* in *ci* and *ca* as a part of the noun class marker but not a phonetic variant of the case marker *k-* after palatalization, and instead a null form is posited for the nominative case marker of personal proper nouns. This has been shown in the Tables 5.11 and 5.12.

This revised proposal has two advantages. First, it can explain why the vowels *-i* and *-a* cannot occur by themselves.³⁴ Second, it eliminates the oddity found with the co-occurrences of two “case markers” in *ci ... -an* and *ca ... -an*. If *c-* is conceived as a case marker, the combinations will be very unnatural, as now we have two case forms (i.e. *c-* and *-an*) that serve to signal just one case relation (accusative in Huang (1995) and Liu (1999) or dative in my analysis).

Another significant difference between my analysis and that of the previous studies (including both Huang 1995 and Liu 1999) is the replacement of the accusative (or

³⁴ However, we have to explain why the genitive case markers for the personal proper nouns are *ni-/na-* but not **nci-* and **nca-*. This seems to be accountable based on the phonological ground. Since **nc-* is not an attested cluster in Amis, the consonant *c* may just get conflated with the case marker. As for the reason why the dative (or accusative/locative in Huang (1995) and Liu (1999)) case marker *t-* is not used for the personal proper nouns, I have no good explanation at this moment.

accusative/locative) case with the dative case in the case paradigm of Amis. There are two reasons for proposing such a treatment, in terms of theory-external and theory-internal considerations respectively. The theory-external consideration is based on observation that this set of case markers signals a rather wide variety of semantic roles, as shown in Chapter 3. Some examples are provided again in (5.47). As one can see, these markers not only signal the argument manifesting a patient role, as the accusative case canonically does, but also arguments or even adjuncts that serve a variety of roles.

- (5.47)a. Mi-nanum kaku **t-u** **sayta.**
 AV-water 1S.NOM DAT-NCM soda
 ‘I am going to drink soda.’ (patient)
 ‘I am drinking soda.’
- b. Pa-fli k-u singsi **t-u-ra** **wawa**
 CAU-give NOM-NCM teacher DAT-NCM-that child

t-u **waneng.** (recipient and theme)
 DAT-NCM candy
 ‘The teacher gave that child candy.’ (AV)
- c. Ma-ulah kaku **t-u** **pusong.**
 AV-like 1S.NOM DAT-NCM Taitung
 ‘I like Taitung.’ (target of emotion)
- d. Ma-utak kaku **t-u** **sanek n-u** **tusiya.**
 NEUT-vomit 1S.NOM DAT-NCM smell GEN-NCM car.
 ‘I feel sick for the smell of cars.’ (reason)
- e. Ma-tayal kaku **t-u** **romi’ad/ro-mi’a-mi’ad.**
 NEUT-work 1S.NOM DAT-NCM day/day<RED>
 ‘I work during the daytime.’ (time)
 ‘I work every day.’
- f. Cenger-en aku k-u kiladum **t-u** **kuhting-ay.**
 color-UV 1S.GEN NOM-NCM cloth DAT-NCM black-FAC
 ‘I am going to color the cloth with the black color.’ (instrument)

As shown in (5.47), the various roles indicated by the case marker *tu* make us hesitate to name it as an accusative case marker, especially those from (5.47d) to (5.47f). The great

diversity of the role types marked by *tu* shows that “dative” may be a more appropriate term for this case, as most of these marking functions in (5.47) coincide with the functions, listed in (5.48), typically or frequently served by a dative case cross-linguistically according to the discussion in Blake (1994):

(5.48) The range of functions performed by dative case (Blake 1994:145):³⁵

- a. indirect object of some two-place verbs low on the transitivity scale (e.g. verbs such as HELP, SEEK, or LIKE).
- b. indirect object of a few three-place verbs such as GIVE and SHOW.
- c. the roles of the purposes (*She went for fish.*) and beneficiary (*She went for (on behalf of) of her mother*). These may be expressed by a purposive case or a benefactive case in some languages.
- d. possessor (frequently expressed by the genitive).
- e. destination (sometimes expressed by a allative case in some languages).
- f. the indirect object of a detransitivized construction as the antipassive of various languages.
- g. the direct object of certain verbs or of all verbs in certain aspects.
- h. the indirect subject of certain verbs or of all verbs in certain aspects.

When comparing the functions of an accusative case and those of a dative case, Blake also makes the following observations:

The accusative case is a syntactic case which can encode a variety of semantic role, but one could take the central and defining function to be that of encoding the affected patient of activity verbs. The dative is likewise a syntactic case that can encode a variety of roles, but I would suggest that its central function is to encode entities that are the target of an activity or emotion. (Blake 1994:145)

If we treat the case markers *t-* and *-an* as markers for dative case, we have to explain why this set of markers also marks an apparent “affected patient” in (5.47a). Nevertheless, as

³⁵ As commented by Blake (1994:145), items (a) to (c) are the typical functions of the dative case while items (d) to (h) are also quite frequent.

discussed in Chapter 4, verbs affixed with *mi-* usually carry an unmarked reading of on-going or motional purposive activities (e.g. *mi-nanum* ‘(go to) drink water’). That is, these verbs are usually rendered as incomplete actions (or atelic), and the patient is not really affected. Moreover, under the reading of a motional/purposive activity, the second argument of *mi-* verbs seems more like a goal or a target, and I have also mentioned that these AV verbs are M-intransitive. Thus, calling the markers *t-* and *-an* as dative case markers that manifest the patient-like arguments for these low-transitivity verbs is well-justified, as the function stated in (5.48f).

Nevertheless, there are also quite a few languages such as Korean (Lee (1999)) and Polish (Przepiórkowski (1999)) that have been reported to mark the temporal adverbials with the accusative case. These languages seem to challenge the above-mentioned rationale of replacing the accusative/locative case. However, there is also theory-internal consideration for proposing such a replacement. As I have mentioned in the case assignment rules of RRG in Chapter 2, the dative case is the default case assigned to the non-macrorole core argument, and this is the status that I have argued for the lowest ranking argument of a two-place AV predicate and the non-actor NPs in a three-place AV predicate in Amis. I have also argued that Amis displays an ergative pattern in the case marking system. However, in RRG, the accusative case is the case assigned to the lowest ranking macrorole on the PSA Selection Hierarchy for accusative languages. Based on these case assignment rules, dative case is a more appropriate choice in my analysis for theory-internal consideration, as the employment of the accusative case indicates the macrorole status of a core argument, and it also implies the transitivity type of a language within the RRG framework.

Other than dative and accusative, there is another possible choice for this set of marker, namely, the oblique case marker, as proposed in Liao (2002) for the case marker *tu* in Kavalan.³⁶ Similar to the *tu* marker in Amis, *tu* in Kavalan has been analyzed in some studies as an accusative case marker, which leads to the claim that Kavalan is an accusative language or a split ergative language. However, Liao (2002) argues that *tu* should be treated as an oblique case marker, and the Kavalan dyadic clause exemplified in (5.49) that contains the nominative case marker *a/ya/wa* for the agent participant and *tu* for the patient participant should be analyzed a syntactically intransitive clause. Liao later concludes that Kavalan is an ergative language.

(5.49) Liao (2002:145, original transcription and gloss)

Riɣu	smaŋi	tu	namat	a	kubaran.
unknown/unable	make	tu	weapon	nom	Kavalan

‘The Kavalan were not able to/did not know how to make weapons.’

Liao’s analysis is based on her observation of the following functions served by *tu* (Liao 2002: 150-151):

- (5.50) a. It can mark an indefinite theme.
- b. It can mark a location noun (a place name or a common noun location).
- c. It can mark an inanimate actor of a dyadic *-an* clause.
- d. It can mark a temporal phrase.
- e. It can mark a (human) comitative noun.
- f. It can mark an inanimate possessor.

There seems to be some functional correspondences between the Kavalan *tu* and the Amis *tu*, which suggests the possibility that Amis *tu* is also an oblique case marker.

Nevertheless, there is a crucial difference between the Kavalan *tu* and Amis *tu*. While

³⁶ Some of the Kavalan communities are very close to the Amis villages. In fact, it is not uncommon that a Kavalan speaker can also speak Amis.

the example given in Liao's paper shows that the argument marked by *tu* is more likely to be indefinite, in Amis, however, there is sometimes a specification requirement for the argument marked by *tu*. Consider the following examples:

- (5.51) a. R-um-akat kaku i lalan.
 walk<NEUT> 1S.NOM PREP road.
 'I am walking on a/the road.'
- b. R-um-akat kaku **t-u** **lalan** sa-ka-tayra i
 walk<AV> 1S.NOM DAT-NCM road InA-KA-go PREP
 wuciya.
 Wuciya
 'I walk on the road to Wuciya.'

The verb *r-um-akat* 'walk' co-occurs with a locative argument in (5.51). If the argument is marked by the preposition *i*, it does not need to be specified; however, if it is marked by *tu*, it must be specified with more information. Another comparison is found in the following pair:

- (5.52)a. Ma-tayal kaku.
 NEUT-work 1S.NOM
 'I am working.'
- b. Mi-tayal kaku **t-u** **tayal** **n-a** **panay.**
 AV-work 1S.NOM DAT-NCM work GEN-NCM Panay.
 'I am going to do the work of the Panay family.'

As seen in (5.52), the *mi-* version of the verb *tayal* 'work' requires the co-occurrence of a second argument manifesting a specified job, and this argument is marked by *tu*. The obligatory presence and the specification requirement of the second argument in (5.52b) indicate that this argument is more like a direct core argument instead of an oblique core argument. Moreover, as I will show later in Chapter 6, some arguments marked by *tu* can still serve as the controller in the obligatory control construction. This property is rarely found with arguments marked by an oblique case marker. It is true that some noun

phrases marked by *tu*, such as those in (5.47e-f), do appear like adjuncts, and unlike core arguments, some *tu*-marked noun phrases can be displaced to the clause-initial position without nominalizing the sentence, which I will discuss in Chapter 6. Nonetheless, this is not the feature with every NP marked by *tu*. Unlike the *tu* marker in Kavalan, Amis *tu* (and *-an*) can mark a non-macrorole direct core argument (e.g. (5.47a)) or adjunct-like NPs (e.g. (5.47e-f)), depending on the semantics of the verb or the constructions, and these marking functions are better incorporated into the functions of a dative case than an oblique case. Therefore, “dative” is a more appropriate term than oblique to describe this set of case markers in Amis.

In Chapter 3, I briefly described the functions of these case markers. Generally speaking, the nominative case marks the so-called grammatical subject in a sentence. That is the reason why in Chen (1987), verbs that do not co-occur with any argument marked by the nominative case are classified as subjectless (or impersonal) verbs. The issue about “subject” properties of an argument will be further explored in Chapter 6. The genitive case performs two functions: marking a possessor and marking an actor in a Non-AV clause; the latter function can be viewed as an equivalent to the ergative case in ergative languages. As shown later in Chapter 6, an argument marked by the genitive case also exhibits certain “subject” properties (i.e. as a controller or as a pivot), which has long been brought to attention in Tagalog by Schachter (1977). The dative case serves a wide range of functions in Amis; it can mark a non-macrorole direct core argument, an oblique argument, or an adjunct. The contrast between a core argument and an adjunct can be illustrated from the following examples. Consider the following examples:

this argument becomes an undergoer as shown in (5.54d); the event has to be something more specific than an ordinary walking activity. The examples in (5.53) and (5.54) indicate that the NP marked by *tu* should play a semantically more important role than the one marked by the preposition; this NP is still in the core of *r-um-akat* ‘walk’, though it is not realized as a macrorole.

A crucial difference between a NMR direct core argument and an oblique one lies in the mechanisms to promote the status of the argument to become a privileged syntactic argument (PSA) in the constructions that require a PSA.³⁷ There are two possible ways to promote an NMR core argument to become a PSA: plain undergoer voice construction and applicative constructions. Consider the following examples in which *tu* marks a NMR direct core argument:

- (5.55)a. Mi-nanum Ø-ci aki **t-u** **sayta.**
 AV-water NOM-PPN Aki DAT-CN soda
 ‘Aki is drinking soda.’
 ‘Aki is going to drink soda.’
- b. Ma-nanum n-i aki **k-u-ra** **sayta.**
 UV-water GEN-PPN Aki NOM-CN-that soda
 ‘Aki drank that soda.’
- b’. Nanum-en aku **k-u-ni** **a** **sayta.**
 water-UV 1S.GEN NOM-CN-this NK soda
 ‘I will drink this soda.’
- b”. Mi-nanum-an n-i aki **k-u** **sayta.**
 MI-water-LA GEN-PPN Aki NOM-CN soda
 ‘Aki drank the soda.’
 ‘What Aki drank is the soda.’ (Locative applicative, UV)
- c. Ma-ulah kaku ci panay-an.
 AV-like 1S.NOM PPN Panay-DAT
 ‘I like Panay.’

³⁷ Such constructions will be discussed in Chapter 6.

d. Ma-ka-ulah aku Ø-ci panay.
 UV-KA-like 1S.GEN NOM-PPN Panay
 ‘I like Panay.’
 ‘Panay is liked by me.’

d’. Ulah-en namu Ø-ci **panay.**
 like-UV 2P.GEN NOM-PPN Panay
 ‘You have to love Panay.’

d’’. Ka-ulah-an aku Ø-ci panay.
 KA-like-LA 1S.GEN NOM-PPN Panay
 ‘Panay is the one I like (most).’ (Locative applicative, UV)

The data in (5.55) illustrates the possibilities to promote the status of the second argument of **pred’** (the one marked by the dative case) in *mi-nanum* and *ma-ulah* to become a PSA (i.e. undergoer of a UV). Both the plain UV constructions (e.g. (5.55b-b’) and (5.55d-d’)) and the applicative UV constructions (e.g. (5.55b’’) and (5.55d’)) are applicable here. Notice the number of core arguments in the two predicates has remained the same in the plain UV constructions and the applicative UV constructions.

Now consider a different case exemplified in (5.56).

(5.56)a. **Ma-patay** k-u oner t-u sapaiyo
 NEUT-dead NOM-CN snake DAT-CN medicine

 n-u ’edu.
 GEN-CN mouse
 ‘Snakes may die from the poison for killing mice.’

a’. (BECOME) **dead’** (oner)

b. **Sa-pi-patay** n-u matu’asay t-u ’oner
 InA-PI-death GEN-CN old.man DAT-CN snake

k-u *sapaiyo* *n-u* *’edu.*
 NOM-CN medicine GEN-CN mouse
 ‘The old man killed the snake with the poison of killing mice.’
 (Instrument applicative, UV)

b’. [**do’** (matu’asay, [**use’** (matu’asay, sapaiyo nu ’edu)])] CAUSE [[**do’** (sapaiyo nu ’edu, Ø) CAUSE BECOME **dead’** (oner)]

- c. **Ma-utak** kaku *t-u* *sanek* *n-u* *tusiya*.
 NEUT-vomit 1S.NOM DAT-CN smell GEN-CN car.
 ‘I feel like vomiting from the smell of cars.’

c’. **do’** (kaku, [**vomit’** (kaku, (y))])

- d. **Sa-ka-utak** aku *k-u* *sanek* *n-u* *tusiya*.
 InA-KA-vomit 1S.GEN NOM-CN smell GEN-CN car
 ‘The smell of the car is the reason why I vomit.’ (Instrument applicative, UV)

d’. **because.of’** (sanek nu *tusiya*, [**do’** (kaku, [**vomit’** (kaku, (y))])])

As shown in (5.56), for the adjunct NP marked by *tu* to become a PSA (i.e. undergoer of a UV), only the applicative construction can be used. Notice that the number of the core arguments will be changed when the applicative constructions are used, as one can compare the number of the arguments in the LS of the non-applicative verb and the applicative one.

There is another way to make the adjunct in (5.56a) and (5.56c) a PSA. However, unlike the applicative constructions that make the adjunct an undergoer of a UV construction, the adjunct now becomes an actor of an AV construction, as illustrated in (5.57):

- (5.57)a. **Mi-patay** *k-u* *sapaiyo* *n-u* *’edu* *t-u*
 AV-dead NOM-CN medicine GEN-CN mouse DAT-CN

oner.

snake

‘The poison for killing mice may kill a snake as well.’

a’. [**do’** (sapaiyo nu *’edu*, Ø)] CAUSE [BECOME **dead’** (oner)]

- b. **Mi-utak** *t-u* *tamdaw* *k-u* *sanek* *n-u*
 AV-vomit DAT-CN person NOM-CN smell GEN-CN

tusiya.

car

‘The smell of cars makes people vomit.’

b'. [**do'** (sanek nu tusiya, Ø)] CAUSE [BECOME **vomit'** (kaku)]

c. **Ma-utak** n-u sanek n-u tusiya kaku.
 UV-vomit GEN smell GEN-CN car 1S.NOM
 'The smell of the car made me vomit.'

c'. [**do'** (sanek nu tusiya, Ø)] CAUSE [**do'**(kaku, [**vomit'** (kaku)])]

The reason/indirect cause adjunct NPs in (5.56a) and (5.56c) now become actor in (5.57a) and (5.57b-c) respectively. As indicated in the logical structures of the two AV predicates *mi-patay* in (5.57a) and *mi-uta* in (5.57c), the predicates have become causativized and there is an effector added to the core of the predicates.³⁸ In other words, the number of the core arguments has also been changed. The addition of the core argument is not found in the examples in (5.55); when the *tu* NPs in (5.55) become a PSA in the plain or applicative UV constructions, there is no addition of the argument involved. Hence, the *tu* NP of *ma-patay* in (5.56a) and *ma-utak* in (5.56c) should be analyzed differently from the *tu* NPs in *mi-nanum* in (5.55a) and *ma-ulah* in (5.55c); those *tu* NPs in (5.56) are adjuncts while those in (5.55) are NMR direct core arguments.

Another difference between a NMR direct core argument and an oblique core argument or adjunct is that the semantic status of the former can always be adjusted through the plain voice operation; however for the latter, it is not always possible. In other words, some *tu* NPs can only be promoted by means of the applicative construction. For example, the plain voice construction is quite unlikely to be employed to promote the adjunct manifesting temporal expression in (5.47e), although the applicative form *ka-*

³⁸ Here the *tu* NP in fact manifests an external causer for the event described by the predicate, though the predicate is non-causative. The same phenomenon is also found in the *tu* NP in (5.49d). This explains why they can serve as the argument for the *mi-* counterparts, which carry a causative reading after derivation. Functionally speaking, the *tu* marker here is similar to the English preposition *from*, which appears to be causative in its predicative roles (Jolly 1993:293) as in the sentence: *John died from Malaria*. The causative version of this English sentence will be *Malaria killed John*.

tayal-an ‘place or time for working’ can be used. For some adjuncts that are more likely to be construed as effectors (e.g. an indirect cause like *sanek nu tusiya* ‘smell of the car’ in (5.56c), they may be promoted to become an actor in AV and UV constructions, as we have seen in (5.57). The following table summarizes the different features of the types of NPs marked by *tu*:

Table 5.14 The Comparison of the NPs Marked by *tu*

	NMR direct core argument	Oblique Core Argument	Adjunct
Position in LS	part of the core, most likely 2 nd argument of pred	part of the core	not in the core
Thematic Relations	most likely an undergoer-like relation	most likely an undergoer-like relation	can be effector-like (e.g. indirect cause, reason) or adjunct-like (e.g. time)
Plain Voice Operation	1. UV, applicative 2. no addition of core argument	1. UV, but not always applicable 2. no addition of core argument	1. AV, but not always applicable, 2. addition of core argument
Applicative Construction	1. Locative-Patient 2. no core argument added	1. <i>mi-...-an</i> or <i>ka-...-an</i> 2. no core argument added	1. <i>sa-</i> , <i>pi-...-an</i> , <i>ka-...-an</i> 2. Core argument added
Examples	<i>sayta</i> in (5.55a)	<i>nanum</i> in (6.4b)	<i>sapaiyo nu 'edu</i> in (5.57a)

Further discussion about the distinctions among the three types of NP will be offered in Chapter 6, in which, the behavioral property in the displacement and WH-question constructions of these NPs will be examined.

Finally, I would like to discuss the function of the preposition *i*. I have demonstrated the contrast between a *tu* argument and an *i* argument in (5.53) and (5.54). Due to its locative feature, this preposition only marks the argument that can, to some extent, be construed as a locative participant. Therefore, it marks oblique arguments or adjuncts such as recipient, goal, location, and direction etc., all of which have a locative feature. In fact, the combination of this preposition and deitic morphemes seems to have been lexicalized as words related to time and space (e.g. *i-ra* ‘exist’, *i-tini* ‘(at) here’, *i-tiya ho* ‘long long time ago’, *i-na-cila* ‘yesterday’). However, I have not found the examples in which the preposition *i* marks a temporal participant. According to Fey

(1986:120), *i* only marks past time, and that is exactly what is found in fixed lexical expressions (e.g. *i-nacila* ‘yesterday’). As for the temporal participants in a sentence, the dative case is employed to mark them, as seen in (5.47e). The assignment of the preposition will be proposed later in this chapter.

5.2.2 Case Assignment Rules

From this section onwards, I am going to formulate the rules for assigning cases in Amis based on the verb classification and the macrorole assignment that have been discussed so far. In RRG, the regular case marking rules for languages in the world make reference to the PSA hierarchy stated in (5.58), which we have seen in Chapter 2:

(5.58) Privileged Syntactic Argument Selection Hierarchy

Arg of DO > 1st arg of **do**' > 1st arg of **pred**' (x, y) > 2nd arg of **pred**'(x, y) > Arg of **pred**' (x)

Thus, for ergative languages or ergative constructions, they generally follow the rules in (5.59):

(5.59) Case Assignment Rules for Ergative Constructions (VV 2005:108)

- a. Assign absolutive case to the lowest ranking macrorole argument in terms of (5.58).
- b. Assign ergative case to the other macrorole argument.

Let us see how the rules in (5.59) apply to Amis. The case marking patterns for predicates with various numbers of core arguments are summarized in Table 5.15:

Table 5.15 Case Marking Patterns in Amis

S-Transitivity	M-Transitivity	Case Marking Patterns	Voice	Verb Types or Affixes
0	0	None or Prep. Phrase	NEUT	meteorological or phenomenal verbs
1	1	NOM	NEUT	unaffixed, <i>ma-</i> , <i>-um-</i>
1	1	GEN	UV	<i>-en</i>
2	1	NOM PREP	NEUT	two-place locative verbs
2	1	NOM DAT	AV	<i>mi-</i> , <i>ma-</i> , <i>-um-</i>
2	2	GEN NOM	UV	<i>ma-</i> , <i>ma-ka-</i> , <i>ma-ka-...-um-</i> , <i>-en</i>
3	1	NOM DAT PREP	AV	<i>pa-</i> or <i>mi-pa-</i>
3	1	NOM DAT DAT	AV	<i>pa-</i> or <i>mi-pa-</i>
3	2	GEN NOM DAT	UV	1. <i>ma-pa-</i> , <i>pa-...-en</i> 2. <i>sa-</i> , <i>-an</i>
3	2	GEN NOM PREP	UV	1. <i>ma-pa-</i> , <i>pa-...-en</i> 2. <i>sa-</i> or <i>-an</i>

Table 5.16 presents the case marking patterns found with different voice affixes:

Table 5.16 Voice Affixes and their Common Case Marking Patterns

Affixes	Logical Structures	Voice	Common Case Marking Pattern
<i>mi-</i>	(do' (x [go' (x)]) & INGR be-at' (z, x)) PURP) do' (x, [pred' (x, y)])	AV	NOM DAT
<i>-en</i> (<i>-en1</i>)	DO (x (do' (pred' (x, y)) ...BECOME (pred' (y)))	UV	1. GEN 2. GEN NOM 3. GEN NOM DAT 4. GEN NOM PREP
<i>ma-1</i>	do' (x, [pred' (x, (y))]) (<i>ma-</i> activity)	AV or NEUT	1. NOM 2. NOM DAT
<i>ma-2</i>	(INGR/BECOME) (pred' (x, (y))) (<i>ma-</i> result state)	AV or NEUT	NOM
<i>ma-3</i>	do' (x, [pred' (x, y)])...BECOME (pred' (y)) (<i>ma-</i> active or causative accomplishment)	UV	GEN NOM
<i>ma-4</i>	pred' (x, (y)) (<i>ma-</i> episodic or plain state)	AV or NEUT	1. NOM 2. NOM DAT

Since Amis is claimed in this dissertation to present an ergative pattern of case marking, following the case assignment rules for ergative languages stated in (5.59), the rules for Amis is formulated in (5.60):

(5.60) Case Assignment Rules in Amis

- a. Assign nominative case to the lowest macrorole argument in terms of (5.58)
- b. Assign genitive case to the other macrorole argument.
- c. Assign dative case to other direct core argument (s).

The rules stated in (5.60) not only account for the case marking pattern for the UV verbs but also for the AV verbs. For the latter, due to the voice operation, there is only one macrorole, which is always assigned the nominative case. As for other core arguments in the AV construction, they will receive the dative case, following the application of (5.60c).

However, one may run into a problem upon the application of the rules in (5.60) for intransitive verbs suffixed with the UV marker *-en*. As shown in Table 5.16, the single argument of an *-en* intransitive verb (i.e. the agent as in (5.9a')) is always marked by the genitive case. Applying the rule (5.60a) to an *-en* intransitive verb will yield the wrong case assignment. Therefore, another set of case assignment rules for verbs marked by *-en* has to be postulated. These rules are stated in (5.61):

(5.61) Case Assignment Rules for Verb Marked by *-en*

- a. Assign genitive case to the highest ranking macrorole in terms of (5.58)
- b. Assign nominative case to the other macrorole argument.
- c. Assign dative case to other direct core argument (s).

For two-place or three-place *-en* verbs, all of the three rules in (5.61) are applicable. But for the one-place *-en* verbs, only (5.61a) and (5.61c) will apply, as there is only one macrorole in such verbs. The examples in (5.62) illustrate how the rules in (5.60) and (5.61) work.

(5.62)a. Ma-ulah_ kaku ci panay-an
 AV-like 1S.NOM PPN Panay-DAT
 'I like Panay,'

a'. **like'** (kaku, panay)
 (Rule(s) applied: (5.60a) and (5.60c))

b. Ma-ka-ulah_ aku Ø-ci panay.
 UV-KA-like 1S.GEN NOM-PPN Panay
 'I love Panay secretly.'
 'Panay was loved by me.'

b'. **like'** (aku, Panay).....BECOME **like'** (aku, Panay)
 (Rule(s) applied: (5.60a) and (5.60b))

c. Ma-stul kaku t-u fekeroh.
 NEUT-stumble 1S.NOM DAT-CN rock
 'I stumbled over on the rock.'

c'. **stumble'** (kaku) → (5.52a)
 (Rule(s) applied: (5.60a))

d. Ma-stul n-u fekeroh kaku.
 UV-stumble GEN-CN rock 1S.NOM
 'The rock rolled to me and made me stumble.'

d'. [**do'** (fekero, Ø)] CAUSE [BECOME **stumble'** (aku)]
 (Rule(s) applied: (5.60a) and (5.60b))

e. Ma-ruhem tu k-u-ra pawli.
 NEUT-ripe ASP NOM-CN-that banana
 'The banana has become ripe.'

e'. (INGR/BECOME) **ripe'** (pawli)
 (Rule(s) applied: (5.60a))

f. Rakat-en aku.
 walk-UV 1S.GEN
 'I will walk (to do something).'

f'. DO (aku, [**walk'** (aku)])
 (Rule(s) applied: (5.61a))

g. Rakat-en aku k-u-ni a kayakay.
 walk-UV 1S.GEN NOM-CN-this LNK bridge
 'I will walk pass the bridge.'

g'. DO (aku, [**walk'** (aku, kayakay)]) & BECOME **walked'** (kakayakay)
 (Rule(s) applied: (5.61a) and (5.61c))

h. Pa-si-fanaq k-u singsi t-u wawa
 CAU-have-knowledge NOM-CN teacher DAT-CN child

 t-u n-u amis.
 DAT-CN GEN-CN Amis
 'The teacher is going to teach the children Amis.'

h'. [**do'** (singsi, Ø)] CAUSE [BECOME **have.knowledge'** (wawa, nu amis)]
 (Rule(s) applied: (5.60a) and (5.60c))

The rules discussed so far only deal with case markers. However, there is also a preposition *i* in Amis. As mentioned earlier, this preposition mainly marks arguments with a locative feature (i.e. *x* in **be-loc'** (*x*, *y*) or **pred-loc'** (*x*, *y*)), which makes its function similar to the prepositions *in* and *at* in English. In addition, it also marks the first argument of the existential verb *ira* or *awa* (i.e. **(NOT) exist'** ([**pred'** (*x*, *y*)]))³⁹ and possibly the first argument in the embedded logical structure BECOME/INGR **pred'** (*y*, *z*). The examples are given in (5.63):

(5.63)a. Maroq kaku i taypak.
 live 1S.NOM PREP Taipei
 'I live in Taipei.'

a'. **live.in'** (taypak, kaku)

b. Ira k-u kawas i lumaq nira.
 exist NOM-CN ghost PREP house 3S.GEN
 'There is ghost in his house.'

b'. **exist'** ([**be-in'** (lumaq nira, kawas)])

c. Ma-na'ay kaku pa-nanum **t-u/i** sayta.
 NEUT-reluctant 1S.NOM CAU-water DAT-CN/PREP soda
 'I don't want to add water into the soda.'

c'. *pa-nanum*: [**do'** (kaku, Ø)] CAUSE BECOME [**have.water_i'** (sayta, *z_i*)

d. Pa-nengneng kaku t-u-ni-ni **t-u/i**
 CAU-see 1S.NOM DAT-CN-this-RED DAT-CN/PREP

wawa_i
 child
 'I showed the child this.'
 'I showed this to the child.'

³⁹ As mentioned in Chapter 4, this is not surprising, as cross-linguistically, existential, locative, and possessive predicates are often coded by the same lexicon (Clark 1978). This phenomenon is also found in Formosan languages (Zeitoun et al. 1999). Hence, the first argument of the three types of predicate may also be viewed the same by speakers.

d'. [**do'** (kaku, Ø)] CAUSE BECOME [**see'** (child, tunini)]

However, as illustrated in (5.63), while the first argument of the embedded BECOME/INGR **pred'** might have more than one way of marking it (e.g. dative case or preposition), the preposition is the only choice for the first argument of **pred-loc'** (x, y). Moreover, while the first argument of the embedded BECOME/INGR **pred'** can be a possible undergoer and hence a PSA in the UV construction, it is impossible for the first argument of **pred-loc'** to be an undergoer, let alone a PSA. This is illustrated by the following contrast between *pa-nanum* 'cause to have water' and *pa-tli* 'put' in (5.64):

(5.64)a. Pa-nanum-en **k-u** **sayta** t-u nanum!
 CAU-water-UV NOM-CN soda DAT-CN water
 'Add water to the soda!'

a'. DO (x, [**do'** (x, Ø)] CAUSE BECOME [**have.water'** (sayta, nanum)])

b. Pa-tli_ kaku t-u kunga **i** **langa.**
 CAU-put 1S.NOM DAT-CN sweet.potato PREP basket
 'I put the sweet potatoes in the basket.'

b'. [**do'** (kaku, Ø)] CAUSE BECOME [**be-loc'** (langa, kunga)]

c. Ma-pa-tli' aku k-u kunga **i** **langa.**
 UV-CAU-put 1S.GEM NOM-CN sweet.potato PREP basket
 'I put the sweet potato in the basket.'

c'. *Ma-pa-tli' aku t-u kunga **k-u**
 UV-CAU-put 1S.GEN DAT-CN sweet.potato NOM-CN
 langa.
 basket
 'I put the sweet potato in the basket.'

As indicated in (5.64), the first argument of the embedded **be-loc'** (e.g. *langa* 'basket') cannot be an undergoer in the UV construction. This follows from the claim in RRG that the first argument of **be-loc'** or **pred-loc'** cannot be a macrorole; in other words, two-

place locative predicates are always M-intransitive. The following preposition assignment rules are postulated for Amis:

(5.65) Preposition Assignment Rules for Amis

Assign the preposition *i* to the first argument of ...**pred'** (x, y)... if it is a non-macrorole argument:

- (i) obligatory if **pred'** (x, y) = **pred-loc'** (x, y), x = common noun
- (ii) optional if **pred'** (x, y) = **pred-loc'** (x, y), x = personal proper noun
- (iii) optional if **pred'** (x, y), **pred'** = cognition, possession, and perception

The three rules stated in (5.65) catch the different contexts when the preposition is assigned. For locative predicates, the preposition is obligatorily assigned to a common noun, as illustrated in (5.63a). However, if the location is expressed by a personal proper noun, the preposition can be optional, though its presence is preferred. The example is given in (5.66). The optional presence of the preposition might be due to the dative case marker *-an*, which shares the same form with the locative suffix that is found in the words denoting place names (e.g. *kila-kilang-an* 'woods' > *kilang* 'tree'); in other words, the locative feature is implied in the dative-case marked NP, and it is probable that the preposition is optional because of this.

- | | | | | | |
|--------|----------------------------|--------|------|-----|-----------|
| (5.66) | Maroq | kaku | (i) | ci | panay-an. |
| | live | 1S.NOM | PREP | PPN | Panay-DAT |
| | 'I live at Panay's place.' | | | | |

As for the rule (5.65iii), it is for the possible presence of the preposition before the first argument of CAUSE BECOME **have'**, **know'**, and **see'**. For this argument, it is also possible to assign the dative case to this NP, as we have seen in the discussion of three-place predicates such as *pa-fli* 'give', *pa-ka-fanaq* 'teach', and *pa-nengneng* 'show'.

5.3 Summary

In this chapter, I have examined the macrorole assignment for verbs with various numbers of core arguments. I have also discussed the case marking patterns and

postulated the case assignment rules for Amis. The following claims are proposed in this dissertation. First, the actor voice predicates are analyzed as M-intransitive regardless of their semantic valence or syntactic-transitivity; in other words, two-place and three-place AV predicates are deemed as M-intransitive. Although lexically these predicates can have two macroroles, the undergoer is realized as a non-macrorole syntactically due to the voice operation. The NMR status of the presumable undergoer argument is indicated by the possibility to promote its status via the application construction. This M-intransitive analysis for two-place AV predicates brings along a significant implication about the transitivity system in Amis. That is, the actor voice construction is a syntactically antipassive construction that decreases the value of the M-transitivity of the ergative counterpart. Second, I have shown that both Principle A and Principle B of undergoer selection, based on the AUH of RRG, are required in Amis in order to adequately describe the undergoer selection patterns found in the three-place predicates. This proposal completes the finding mentioned in Starosta (1974) and Chen (1987) about case reassignment in causative verbs. Their findings seem only relevant to the application of Principle B, not Principle A, as their data primarily includes *pa-pi*-causative verbs only; other *pa*- verbs have been left out in their discussion. Finally, case assignment rules for Amis have been formulated based on its ergative pattern of case marking. In addition, the preposition assignment rules for this language have also been established. All of the above claims and analyses are closely related to the discussion of the next chapter, the grammatical relations in Amis.