THE MORPHOLOGY OF AFFECTEDNESS IN KIMARAGANG DUSUN

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1. INTRODUCTION

Kimaragang Dusun is a Philippine-type language, a member of the Dusunic family, spoken in Sabah, East Malaysia.[1] This paper examines the function of two verbal prefixes in Kimaragang, *po-* and *poN-*. I will refer to them as 'affectedness prefixes', for reasons which will become clear below. Both prefixes have cognate forms in a large number of Western Austronesian languages. *PoN-* appears in a variety of languages as a marker of 'transitivity' and has sometimes been analysed as an antipassive marker. *Po-* is homophonous with the causative prefix *po-*. While this is clearly no accident in historical terms, I do not believe that the two are related syncronically in Kimaragang.[2] The following examples present a minimal contrast between these prefixes:[3]

(1)　a.　*Ø-po-suwang okuh　　ditih　　sada sid　pata'an.*[4]
　　　　　AV-U$_n$-enter　1SG.NOM this.ACC　fish　DAT　basket
　　　　　I will put this fish in the basket.

　　　b.　*Monuwang (m-poN-suwang)*[5] *okuh　　do　　pata'an do　　sada.*
　　　　　　AV-U$_t$-enter　　　1SG.NOM　ACC　basket　ACC　fish
　　　　　I will fill a basket with fish.

One difference between the two examples is that the goal argument, the basket, gets accusative case in (1b) but dative case in (1a). There is a corresponding semantic difference between the two sentences as well. The form *Ø-po-suwang* in (1a) could be used for a single fish, or for any specified number of fish, whether or not the basket was completely filled. The form *monuwang* in (1b) could never be used for a single fish; it requires that the basket be completely filled, and implies that there is an indefinite and large amount of fish available.

In this paper a series of morphological alternations in Kimaragang, like that shown in (1), is discussed. Each of these alternations is correlated with particular semantic contrasts;

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[1] For a description of Kimaragang verbal morphology, see Kroeger (1988a,1988b,1990). The terminology used in the 1988 papers for labelling the voice- and case-marking affixes is quite different from that used in the present paper, but this should not be a major source of confusion if the reader is forewarned.

[2] Some support for this suggestion is derived from causative forms in closely related languages, e.g. Penampang Kadazan, in which both *po-*'s appear simultaneously. David Zorc (pers.comm.) has suggested to me that the affectedness prefix *po-* may be a reflex of PAN *paG-*, rather than the causative *pa-*.

[3] For list of abbreviations and symbols used in this paper see Appendix.

[4] The Active Voice marker is always represented by a Ø-allomorph before the prefix *po-*, whether in causative constructions or in non-causative examples like (1a).

[5] When the surface form of a verb is not morphologically transparent, the underlying morphemic representation is shown in parentheses.

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however, the specific nature of these contrasts varies considerably, depending on the semantic class of the verb and the specific argument types involved. In order to understand the observed patterns, it is necessary to distinguish 'thematic' roles, like agent, theme and goal, from the notion of 'affectedness'. The function of prefixes *po-* and *poN-* in Kimaragang is to index the semantic role of the 'affected' argument, or more precisely, of the Undergoer.

2. OVERVIEW OF THE ANALYSIS

2.1 THEMATIC ROLES VERSUS ACTION ROLES

The relation between the Actor and the Undergoer of a clause, using the terms roughly in the sense intended by Foley and Van Valin (1984), will be crucial to our discussion. The Undergoer is the entity which the speaker views as being primarily acted upon by the Actor. Following Jackendoff (1987,1990), I will assume that the semantic properties of a verb's arguments are encoded on two separate 'tiers'. Information about motion and location is encoded on the *thematic tier*. The *action tier* represents the relationship between an Actor and the object acted upon, that is, the Undergoer.[6]

Let us return to the examples in (1). The verb *suwang* takes three arguments, which bear the roles of agent, theme and goal on the thematic tier. Either the theme or the goal may be viewed as the entity acted upon (i.e. the Undergoer). The prefix *po-* signals that the theme (the fish) is the Undergoer, while *poN-* signals that the goal (the basket) is the Undergoer. Thus the two sentences in (1a) and (1b) involve the same thematic relations but different alignments between action tier (Act.T) and thematic tier (Th.T). I will represent these two possible alignments as follows (A = Actor; U = Undergoer):

po-suwang <Agent Theme Goal> OR *poN-suwang* <Agent Theme Goal> [Th.T]
　　　　　　　　　|　　　|　　　　　　　　　　　　　　　　　　|　　　　　|
　　　　　　　　　A　　　U　　　　　　　　　　　　　　　　　　A　　　　　U　　[Act.T]

The alternation in the identity of the Undergoer has both semantic and morphological effects. As noted above, when the goal is the Undergoer, it must be interpreted as completely affected by the action and must take accusative case. Otherwise the goal takes dative case. When the theme is the Undergoer, it must be interpreted as being individuated as well as completely affected.

This paper examines a number of alternations in which there is both morphological and semantic evidence of a shift in the identity of the Undergoer. In each case, it will be seen that the thematic role assignments of the arguments remain invariant. That is, a change in Undergoer does not involve a change in thematic role. This implies that the relation between Actor and 'acted upon' cannot be defined in terms of thematic relations, and must be represented separately.

2.2 VOICE AND CASE IN KIMARAGANG

In Kimaragang, as in most Philippine-type languages, any argument of the verb can be selected as subject. A definite Undergoer will normally be selected as subject unless some other argument of the clause is extracted. Non-subject arguments carry semantically

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6   Jackendoff refers to the entity acted upon as the 'Patient'.

determined case marking that reflects their thematic role, but subjects always carry nominative case. The case-marking particles of Kimaragang are summarised as follows:[7]

	Nominative	Genitive/Accusative	Dative/Locative
Definite	*i(t)*	*di(t)*	*sid*
Indefinite	*o(t)*	*do(t)*	*sid*

The thematic relationship of the subject argument to the predicate is signalled by a voice- (or 'focus-') marking affix on the verb. The use of the voice markers in Kimaragang is illustrated in the following examples. In each case, the subject is underlined:

(2) a. *Mangalapak (m-poN-lapak)* <u>*okuh*</u>   *do   niyuw.*
                      AV-U$_t$-split   1SG.NOM ACC coconut
         <u>I</u> will split a coconut / some coconuts.

     b. *Lapak-on kuh*   <u>*it   niyuw.*</u>
         split-OV 1SG.GEN NOM coconut
         I will split <u>the coconut(s)</u>.

     c. *Lapak-an kuh*   *do   niyuw* <u>*it   wogok.*</u>
         split-DV 1SG.GEN ACC coconut NOM pig
         I will split some coconuts for <u>the pigs</u> (to eat).

     d. *Nokuroh.tu'* *n[8]-i-lapak   nuh*   *do   niyuw* <u>*inoh   dangol*</u>
         why   PST-IV-split 2SG.GEN ACC coconut that.NOM bush.knife

         <u>*kuh?*</u>
         my
         Why did you use <u>my bush knife</u> to split coconuts?

In example (2a), the Active Voice marker (*m-*) signals that the agent ('I') is subject, and so must be marked with nominative case. Default case assignment marks the patient ('coconut') as accusative. In example (2b), the Objective Voice marker (-*on*) indicates that the patient is the subject, and the agent takes its default case marking, genitive. In example (2c), the Dative Voice marker (-*an*) indicates that the subject is a Beneficiary. The agent takes genitive case and the patient accusative. In example (2d), the Instrumental Voice marker (*i-*) indicates that the subject is an instrument.

The Instrumental Voice is used not only for instruments, as in (2d), but also for 'Displaced Themes' (Rappaport & Levin 1986).[9] This term refers to arguments of transitive

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[7] The genitive and accusative cases are distinguished only in pronominal forms, but for ease of exposition I will gloss non-pronominal noun phrases as accusative or genitive case depending on which form a pronominal argument would take in that same position. Another possible analysis would be to say that non-pronominal objects take genitive case, while pronominal objects take accusative case. This pattern finds parallels in other Philippine-type languages. For example, in Tagalog definite animate objects take dative case, while indefinite and most inanimate objects take genitive case.

[8] Past tense is marked by an infix, -*in*-, which reduces to *n*- before vowels; non-past tense is morphologically unmarked. The corresponding affix in Tagalog and many other Philippine languages has been analysed as marking realis aspect, rather than tense, but Kimaragang appears to use it as a true tense marker. One manifestation of the difference is that the infix appears in simple present or present progressive forms in Tagalog (e.g. *b-in-i-bigy-an* 'is being given') whereas it is absent in the corresponding Kimaragang form (*taak-an*).

[9] Rappaport and Levin (p.22) point out that there is a cross-linguistic tendency for Instruments and Displaced Themes to be realised in the same way (e.g. by the same prepositions). See references cited in their footnote 22.

or ditransitive verbs which involve a change of location or possession on the part of their theme (e.g. 'give', 'throw', 'hang up', 'plant', 'put away', etc.). We will use a distinct thematic role label, 'theme', for the Displaced Theme (i.e. the argument to which motion is imparted).

The normal association between thematic roles, case and voice markers is summarised in the following table:

Voice marker	Active (m-)	Objective (-on)	Instrumental (i-)	Dative (-an)
Default case	Genitive	Accusative	Accusative	Dative
Theta roles	Agent	Patient	Instrument Theme	Recipient Goal Benefactive[10]

The prefixes *po-* and *poN-* appear on the verb only when the Undergoer is not the subject of the clause. The generalisation that determines which of the two prefixes appears in any given context is the following: *poN-* appears when the Undergoer is also the endpoint of the action; *po-* appears when the Undergoer is distinct from the endpoint of the action.[11] For this reason I have glossed these prefixes as 'U$_t$' (for 'terminal Undergoer') and 'U$_n$' (for 'non-terminal Undergoer') respectively. The identity of the endpoint is determined by the thematic tier. In example (1), the goal (the basket) is the endpoint of the action, since the action is complete when the theme (the fish) reaches the basket. Thus in (1b), the verb carries the prefix *poN-* because the Undergoer is the goal, the endpoint of the action. In (1a), the verb carries the prefix *po-* because the Undergoer is a non-endpoint, the theme.

In events of the source-theme-goal type, the goal is the endpoint of the action because the event is conceived of as being complete when the theme reaches the goal. In agent-patient type events, it is the state of the patient which delimits the action. The event is complete when the patient has been impinged on (for verbs like 'hit'), undergone a change of state (for verbs like 'kill' and 'split'), created (for verbs like 'build'), etc. Thus patients are endpoints but themes are not. This fact means that non-subject patient Undergoers will require that the verb carry the prefix *poN-* whereas non-subject theme Undergoers require the prefix *po-*.

3. DATIVE ALTERNATION

In this section the morphological and semantic correlates of an alternation in Undergoer choice are illustrated by the verb *ta'ak* 'give'. This verb takes three arguments which bear the thematic roles of agent, theme and goal. Once again, either the theme or goal may be selected

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10   Non-subject Benefactives may take accusative case, but such constructions are rare and almost always involve the first person singular beneficiary. These constructions are discussed in §4.3.

11   This may seem to be an unusual conditioning factor, but it is certainly not unheard of. A very similar condition determines the choice of 'goal voice' versus 'intermediary voice' in Malagasy (Keenan 1976:258).

as Undergoer. The following examples provide a minimal contrast very similar to that in example (1).

(3) a. *Ø-pa-ta'ak   okuh   do   siin   sid   tanak kuh.*
    AV-U$_n$-give 1SG.NOM ACC money DAT child my
    I give money to my child.

  b. *Mana'ak (m-poN-ta'ak) okuh   di   tanak kuh do   siin.*
        AV-U$_t$-give 1SG.NOM ACC child my   ACC money
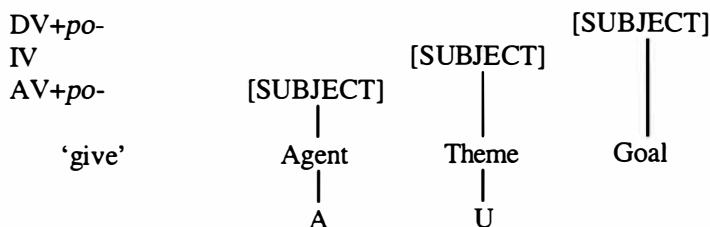   I give my child money.

Once again, the alternation between *po-* and *poN-* correlates with a contrast between dative and accusative marking on the goal noun phrase. And once again, there are corresponding semantic contrasts between the two sentences (to be discussed below). The prefix *po-* is used when the theme is Undergoer (3a), and *poN-* when the goal is Undergoer (3b), since the goal is the endpoint of the event.

Although the Undergoer is the preferred choice of subject, subject-selection is formally independent of Undergoer-selection. Thus the verb may carry any of three possible voice markings no matter whether the theme or goal is selected as Undergoer. The possible forms of the verb when the theme is selected as Undergoer are illustrated in the following examples:

(4) a. *Ø-pa-ta'ak   okuh   do   siin   sid   tanak kuh.*
    AV-U$_n$-give 1SG.NOM ACC money DAT child my
    I give money to my child.

  b. *I-ta'ak   kuh   itih   siin   sid   tanak kuh.*
    IV-give 1SG.GEN this.NOM money DAT child my
    I will give this money to my child.

  c. *Isai ot   pa-taak-an*[12] *do   siin?*
    who NOM U$_n$-give-DV ACC money
    To whom should contributions be given? (e.g. at a funeral)

All of these examples have the same Undergoer, namely the theme. But in each the subject is different: the agent in (4a), the theme in (4b) and the goal in (4c). When the Undergoer is selected as subject, as in (4b), the verb does not carry any affectedness prefix. In the other two examples the Undergoer is not the subject; the verb must carry the affectedness prefix *po-*, since the theme is not the endpoint of the action.

The alignment of roles in the preceding examples is summarised as follows:

```
DV+po-                                      [SUBJECT]
IV                          [SUBJECT]           |
AV+po-        [SUBJECT]          |              |
                  |             |              |
  'give'       Agent         Theme          Goal
                  |             |
                  A             U
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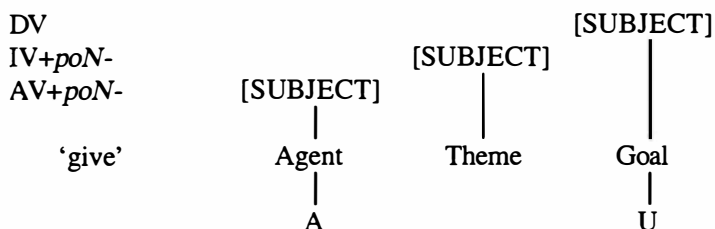
Now let us consider the possible forms of the verb when the goal is selected as Undergoer:

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[12] The glottal stop in *ta'ak* and similar forms is not pronounced when a suffix is added.

(5) a. *Mana'ak (m-poN-ta'ak) okuh   di   tanak kuh do   siin.*
             AV-U$_t$-give   1SG.NOM ACC child my   ACC money
         I give my child money.

     b. *Taak-an kuh   i   tanak kuh do   siin.*
         give-DV 1SG.GEN NOM child my   ACC money
         I will give my child money.

     c. *Nunuh ot   pana'ak (Ø-poN-ta'ak) nuh   ong orugi koh?*
         what   NOM   IV-U$_t$-give   2SG.GEN if   fined 2SG.NOM
         What will you give if you have to pay a fine?

In each of these examples the Undergoer is the goal. The subject is the agent in (5a), the goal in (5b) and the theme in (5c). Since the Undergoer is the subject in (5b), no affectedness prefix appears on the verb. In the other two examples the verb must carry the affectedness prefix *poN-*, since the Undergoer is not the subject but is the endpoint of the action (the goal). The alignment of roles in these examples is summarised as follows:

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DV                                                    [SUBJECT]
IV+poN-                               [SUBJECT]           |
AV+poN-            [SUBJECT]              |                |
                       |                 |                |
   'give'           Agent             Theme            Goal
                       |                                  |
                       A                                  U
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There is a clear semantic contrast between the theme-Undergoer and goal-Undergoer constructions which is independent of changes in voice marking. Even though both argument structure configurations allow three different morphological expressions, depending on which argument is selected as subject, the semantic restrictions depend only on the choice of Undergoer.

The effect of the event on the Undergoer is the dominant factor in determining the interpretation assigned to the verb (in this case, 'give'). When the theme is selected as Undergoer, it is the theme's change of position, movement from the giver to the givee, which is the most salient component of meaning. When the goal is selected as Undergoer, the goal's change from non-ownership to ownership of the theme is the central element. Thus the alternation in the identity of the Undergoer gives rise to two different senses of the verb 'give' which have different entailments. The first sense entails change of physical possession while the second sense entails change of ownership.

When the theme is selected as Undergoer, as in (4), the verb may imply mere physical handing-over rather than actual transfer of ownership. Thus the form *Ø-pa-ta'ak* in (4a) could be used in reference to a delivery boy, or to some dignitary who is asked to hand out prizes. It does not imply that the Actor is the original owner of the thing being given, or that the recipient acquires ownership. In contrast, the form *m-poN-ta'ak* in (5a) can only be used when the Actor is the original owner of the thing given. It must imply transfer of ownership, but need not entail change of physical location. In contexts where change of ownership is explicitly intended, *Ø-pa-ta'ak* is impossible:

(6)   *Minokianu okuh   do   siin   sid   YB*
        asked.for   1SG.NOM ACC money DAT assemblyman

nga' amu yalo   mana'ak (m-poN-ta'ak) / *Ø-pa-ta'ak.
but   not 3SG.NOM   AV-U$_t$-give   AV-U$_n$-give
I asked the assemblyman for some money, but he wouldn't give me any.

Similarly, *taak-an* (as in example (5b)) marks an affected recipient as subject. In this construction the recipient must actually gain ownership of what he is given. In contrast, *pa-taak-an* is used for a non-affected recipient subject who gains physical possession but not necessarily ownership, as in example (4c). This form could be used about someone who is collecting money on behalf of another person, for example, a family friend who accepts donations at a funeral.

This analysis predicts that themes which cannot be physically moved should resist being selected as Undergoers. That is, since the theme-Undergoer sense of the verb entails a change of physical possession, themes which cannot be passed from one person to another should not be eligible to be Undergoers. This prediction is confirmed by examples like the following. The noun *tana'* is ambiguous between the meanings 'land' and 'dirt'. Since a piece of land cannot be physically moved (at least, not by human agency), only the latter sense is available when the verb is marked as taking a theme-Undergoer, as in (7b).[13]

(7) a. *Mana'ak (m-poN-ta'ak) okuh   dikau   do   tana'.*
              AV-U$_t$-give   1SG.NOM 3SG.ACC ACC earth
         I will give you some land.

     b. *Ø-pa-ta'ak   okuh   dikau   do   tana'.*
         AV-U$_n$-give 1SG.NOM 3SG.ACC ACC earth
         I will hand you some dirt (*land).

4. APPLICATIVE CONSTRUCTIONS

In this section several constructions involving an exceptional (or marked) assignment of the Undergoer role are discussed (i.e. an argument is selected as Undergoer which is not normally projected onto the action tier). These are referred to as applicative constructions.

In contrast with applicative formation in Bantu, or in other Western Austronesian languages such as Malay, Chamorro and Sama, there is no applicative morpheme as such in Kimaragang. Morphologically, there is no difference between applicatives and the locative- or dative-type alternations discussed in §2 and §3. Applicative formation is an operation on argument structure which has both morphological and semantic consequences of the kind illustrated above.

4.1 INSTRUMENTAL APPLICATIVES

For ditransitive verbs like 'give', there seems to be no preferred choice of Undergoer. Either the theme or the goal are equally likely to be projected onto the action tier. But for transitive verbs which take a patient, like the one illustrated in example (2), the patient is the strongly favoured choice for Undergoer. Patients are inherently acted upon. Thus, when the agent is selected as subject, the prefix *poN-* must appear on the verb, signalling that the non-subject Undergoer is a patient. When the patient is selected as subject (as is normally the case

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13   Thanks to Jim Johansson and Janama Lontubon for confirming this prediction.

if the patient is definite), its role is encoded by the voice marker (Objective Voice) and no prefix appears on the verb. An example of this pattern was seen in example (2).

Verbs of this type have an optional instrument role. Non-subject instruments take accusative case, as illustrated in (8a). The instrument may also be selected as subject, as in (8b).

(8) a. *Lapak-on kuh   do   kapak ilo'   niyuw kuh.*
         split-OV 1SG.GEN ACC axe   that.NOM coconut my
         I will split my coconuts with an axe.

     b. *Tongoh ot   pangalapak (Ø-poN-lapak) nuh   dilo'   niyuw?*
         what   NOM   IV-U$_t$-split   2SG.GEN that.ACC coconuts
         What will you split those coconuts with?

In (8b), the instrument is selected as subject by the use of Instrumental Voice. Since the patient is still the Undergoer, the prefix *poN-* must also appear on the verb. Under unusual circumstances, the instrument (rather than the patient) may be encoded as the affected argument, as in (9). In these examples, the implication is that the action will be harmful to the instrument (the bush knife). (Another such example was seen in (2d).) Since the Undergoer (the instrument) is selected as subject in these examples, no affectedness prefix appears on the verb. Thus (8b) and (9) provide a minimal contrast of the non-affected versus affected instrument constructions. The voice marking of the verb remains constant. The only difference in the verbal morphology is the presence versus absence of the prefix *poN-*.

(9) a. *Noko-rasang okuh   dialo   tu'*
         PERF-angry 1SG.NOM 3SG.ACC because

         n-i-tibas   do   pampang it   dangol   kuh.
         PST-IV-slash ACC stone   NOM bush.knife my
         I got angry at him for slashing a rock with my bush knife.

     b. *Nokuroh.tu' n-i-ansap   nuh   do   poring*
         why   PST-IV-scrape 2SG.GEN ACC bamboo

         inoh   dangol   kuh?
         that.NOM bush.knife my
         Why did you use my bush knife to scrape bamboo?

In (9) the instrument is viewed as the primary affected object and encoded as Undergoer, via the process of instrumental applicative formation. This process results in a marked assignment of the Undergoer role, since the instrument is not normally projected onto the action tier. If the instrumental Undergoer in this construction is not selected as subject, the verb must carry the prefix *po-*, since the instrument is not the endpoint of the action. The following examples, in which the Actor is selected as subject, again illustrate the contrast between non-affected instrument (10) and affected instrument (11):
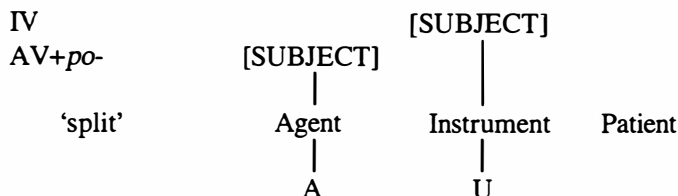
(10)   *Mangalapak (m-poN-lapak) okuh   do   niyuw.*
                     AV-U$_t$-split   1SG.NOM ACC coconut
        I will split a coconut / some coconuts.

(11) a. *Ø-pa-lapak okuh   poh ditih   kapak nuh do   niyuw.*
         AV-U$_n$-split 1SG.NOM yet this.ACC axe   your ACC coconut
         I will (or 'Let me') split some coconuts with your axe.

    b. *Ø-po-tibas   okuh   poh ditih   dangol   nuh do   pampang.*
       AV-U$_n$-slash 1SG.NOM yet this.ACC bush.knife your ACC stone
       I will slash a stone with your bushknife.

The sentences in (11) carry the implication that the speaker wants to test the sharpness or strength of the instrument; the action is primarily directed at the instrument, rather than the patient. Since the instrument is the Undergoer, the verb carries the prefix *po-*, in contrast to (10) where the prefix *poN-* indicates that the patient is the Undergoer.

    The argument structure of the instrumental applicatives in (9) and (11) is summarised in as follows:

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IV                              [SUBJECT]
AV+po-          [SUBJECT]           |
                    |               |
    'split'       Agent       Instrument    Patient
                    |               |
                    A               U
```

4.2 LOCATIVE APPLICATIVES

    A number of unergative verbs which take optional locative arguments can be transitivised by marking the locative as an Undergoer. For example, the stem *ogom* normally means 'sit'; the transitive form of the verb, with an affected locative argument, means 'sit on'. The stem *odop* normally means 'sleep'; the transitive form means 'sleep at'. The stem *tulud* normally means 'fly'; the transitive form means 'lunge' or 'dive at'. I will analyse these derived transitive verbs as locative applicative forms.
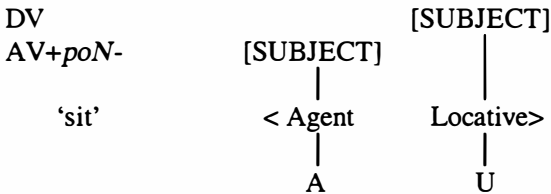
    Since there is no Undergoer in the intransitive form of the verb, the Actor is normally selected as subject, as in (12), and no affectedness prefix appears on the verb. In the transitive form of the verb, the Undergoer (the applied locative argument) is the preferred choice of subject; but under some circumstances (e.g. relative clauses, Wh- questions or cleft sentences) the Actor-subject form may occur, as in (13). In such cases the prefix *poN-* is obligatory, since the locative Undergoer is the endpoint of the event. Thus the following examples provide a minimal contrast between the transitive form of the verb with no affectedness prefix (12) and the transitive form of the verb with *poN-* (13).

(12) a. *M-odop   okuh   poh.*
         AV-sleep 1SG.NOM yet
         I'm going to sleep now.

     b. *M-ogom-ogom yalo   sid   rinantay.*
        AV-DUP-sit   3SG.NOM DAT floor
        He is sitting on the floor.

(13)   *Ong kapayig koh,   isai   ot   mongodop (m-poN-odop)*
       if   go.out   you.SG who NOM   AV-U$_t$-sleep

       dilot   walai nuh?
       that.ACC house your
       If you go out, who sleeps at (i.e. guards) your house?

Even in the intransitive use of the verb, locatives are eligible for subject selection, especially when, as in (14), the locative element is extracted. Again, no affectedness prefix is required on the verb because there is no Undergoer.[14] In the locative applicative construction, which derives the affected transitive meanings of these verbs, the locative argument becomes an Undergoer, and is therefore the preferred choice as subject. When the locative is selected as subject, the verb takes Dative Voice, as in (15).

(14) a.   *Sid disai   ot   odop-on nuh?*
           at   whose NOM sleep-LV 2SG.GEN
           Whose house will you sleep at?

      b.   *Siomboh ot   ogom-on kuh?*
           where   NOM sit-LV   1SG.GEN
           Where shall I sit?

(15) a.   *Nagaman (n-ogom-an) kuh   it   tupi nuh.*
                   PST-sit-DV 1SG.GEN NOM hat   your
           I sat on your hat.

      b.   *Naadapan (n-o-odop-an)   noh   dialo   itih   lamin ditih.*
                   PST-STAT-sleep-DV already 3SG.ACC this.NOM room   this
           He once slept in this room.

The argument structure of the locative applicative examples is summarised as follows:

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DV                                    [SUBJECT]
AV+poN-              [SUBJECT]           |
                       |                 |
     'sit'          < Agent          Locative>
                       |                 |
                       A                 U
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4.3 BENEFACTIVE APPLICATIVES

The following examples illustrate two possible uses of Dative Voice. In (16a) the subject is a benefactive while in (16b) the subject is a locative.

(16) a.   *Lapak-an kuh   do   niyuw   it   wogok.*
           split-DV 1SG.GEN ACC coconut NOM pig
           I will split some coconuts for the pigs (to eat).

      b.   *Siomboh pangalapakan (poN-lapak-an) nuh   do   niyuw?*
           where U_t-split-DV   2SG.GEN ACC coconut
           Where do you split coconuts?

Notice the crucial difference between (16a) and (16b): both constructions use the same voice marker, but the verb in (16a) has no prefix. This means that the Undergoer in (16a) is actually the subject (i.e. the benefactive). This conclusion is supported by a semantic restriction on benefactives in constructions like (16a) which is similar to the semantic

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[14]   When the locative argument is selected as subject, as in (14), the verb carries a special Locative Voice marker, which is homophonous with the Objective Voice marker. The Locative Voice marker fails to delete in past tense forms, unlike the Objective Voice affix.

constraint on dative alternation discussed in §3, namely that a benefactive Undergoer must always be a recipient in some sense.

In example (16a) the pigs are the eventual recipients of the coconut. Non-Undergoer benefactives may be either recipients or merely someone on whose behalf an action is performed.[15] Thus sentences like (17) are apparently ambiguous. They seem to allow either the reading on which the benefactive (in this case the speaker) wants the coconuts split for some purpose (e.g. to make copra), without splitting them himself (the 'on behalf of' reading); or the reading on which the speaker wants to eat the coconut meat (recipient reading). But the 'on-behalf-of' reading is the preferred one.

(17)   *Lapak-o'   dogo'   itih   niyuw!*
        split-OV/IMP 1SG.ACC this.NOM coconut
        Split this/these coconut(s) for me!

When the benefactive is the Undergoer, as in (16a), it is conceived of as being the entity primarily acted upon. The effect of the action on the benefactive, rather than the patient, is of primary concern. For example, (16a) might be paraphrased as 'Feed the pigs (by means of splitting some coconuts)', while (17) might be paraphrased as 'Split this coconut (as a favour to me)'. In order to be viewed as 'acted upon', a benefactive must come into possession of something. Thus in contrast to the potential ambiguity of examples like (17), in a benefactive applicative only the recipient reading is possible.

The configuration of thematic- and action-tier relations in (16a), which is the result of benefactive applicative formation, is the following:

DV   [SUBJECT]
                                                     |
'split'   Agent   Patient   Benefactive
                    | |
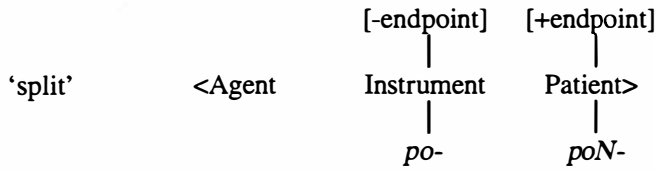   A   U
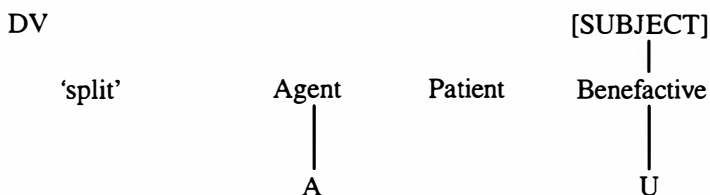
Benefactive applicatives in Kimaragang appear to impose a special constraint on subject selection, namely that the new Undergoer (i.e. the benefactive) must *always* be selected as subject. One consequence of this constraint is that non-subject benefactives, like that in (17), are never Undergoers. As we saw in the preceding sections, instrumental and locative applicatives are *not* subject to this constraint; in these constructions the applied argument (the new Undergoer) may be either subject or object, as expected.

The analysis presented here suggests a fairly natural explanation for the constraint on benefactive applicatives in terms of morphological blocking. Since applied benefactives have the semantic properties of recipients, they are endpoints; the event is complete when the benefactive (e.g. 'the pigs' in (16a)) has received the result of the agent's action on the patient ('the coconuts'). But patients, as we noted in §2, are also endpoints. Thus a non-subject benefactive Undergoer would require the same morphology on the verb (*poN-*) as a non-subject patient Undergoer does in basic (non-applicative) constructions. That is, the form *poN-V* would be ambiguous between the basic patient-Undergoer argument structure and the applicative benefactive-Undergoer argument structure. This potential ambiguity does

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[15]   These non-affected Benefactives are rare, and take accusative case when they occur. The vast majority are pronominal forms, usually first person singular as in example (17); but non-pronominal examples can be constructed as well.

not arise in instrumental and locative applicatives, as illustrated in the following diagram. For each type of predicate, the diagram shows which prefix would be required on the verb if a given argument appeared as a non-subject Undergoer:
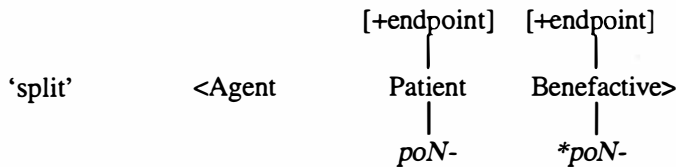
Instrumental Applicative

$$
\begin{array}{ccc}
& & \text{[-endpoint]} \quad \text{[+endpoint]} \\
& & | \qquad\qquad | \\
\text{'split'} \quad <\text{Agent} & & \text{Instrument} \quad \text{Patient}> \\
& & | \qquad\qquad | \\
& & \textit{po-} \qquad\quad \textit{poN-}
\end{array}
$$

Locative Applicative

$$
\begin{array}{cc}
& \text{[+endpoint]} \\
& | \\
\text{'sit'} \quad <\text{Agent} & \text{Locative}> \\
& | \\
& \textit{poN-}
\end{array}
$$

Benefactive Applicative

$$
\begin{array}{ccc}
& & \text{[+endpoint]} \quad \text{[+endpoint]} \\
& & | \qquad\qquad | \\
\text{'split'} \quad <\text{Agent} & & \text{Patient} \quad \text{Benefactive}> \\
& & | \qquad\qquad | \\
& & \textit{poN-} \qquad\quad \textit{*poN-}
\end{array}
$$

It is only in the benefactive applicative construction that we find two different arguments 'competing' for the same prefix. The patient-Undergoer construction takes precedence over the benefactive-Undergoer construction, perhaps because the patient is an obligatory argument while the benefactive is always optional. When there is no benefactive present, the form *poN*-V will always select the patient as Undergoer. Thus the only way for the grammar to avoid ambiguity is to ensure that, when both patient and benefactive are present, the form *poN*-V still selects the patient as Undergoer. Note that the 'blocking' effect does not prevent benefactives from becoming Undergoers (as in benefactive applicatives), but only from becoming non-subject Undergoers. This fact suggests that the constraint does not apply to argument structure, but is purely morphological in nature.

In summary, applicative formation creates an argument structure with a marked choice of Undergoer. The semantic effects are slightly different for each of the three types of applicative, but in each case there are clear semantic differences between the applicative and non-applicative forms. However, there is no morphological marker for applicative formation, that is, no single morpheme which is present in applicative constructions but lacking in non-applicative constructions. And once again, the morphological evidence (invariance of voice-marking categories) indicates that a change in affectedness relations does not involve a change in thematic roles.
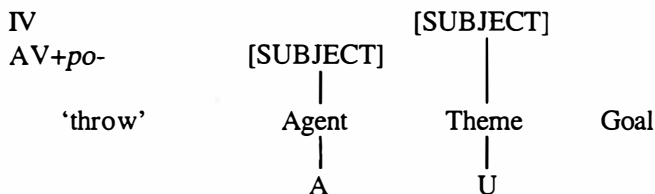
5. 'THROW' VERSUS 'THROW-AT'

The analysis developed in the preceding sections enables us to give a coherent account of the morphosyntactic behaviour of several classes of verbs which would otherwise appear

quite anomalous. One such class involves a group of verbs with meanings similar to 'throw'. Consider the following examples involving the roots *pilay* 'throw' and *tokon* 'hurl (as a spear)':

(18) a. *Ø-po-tokon okuh   do   tandus.*
          AV-U$_n$-hurl 1SG.NOM ACC spear
          I will throw a spear.

      b. *Amu elo' yalo   Ø-po-pilay   do   bula.*
          not know 3SG.NOM AV-U$_n$-throw ACC ball
          He doesn't know how to throw a ball.

(19) a. *I-tokon kuh   itih   tandus nuh sid   gowuton.*
          IV-hurl 1SG.GEN this.NOM spear your DAT jungle
          I will throw your spear into the bush.

      b. *Ababak ot   kasa ong i-pilai   sid   pampang.*
          break   NOM bottle if IV-throw   DAT rock
          A bottle will break if thrown against a rock.

The morphological pattern of these examples indicates that the theme is linked to the Undergoer role. When the agent is selected as subject (example 18), the verb must carry the prefix *po-*, since the Undergoer (the theme) is not the subject. When the theme is selected as subject (example 19), the verb carries only the Instrumental Voice marker. These patterns are summarised as follows:

```
IV                                 [SUBJECT]
AV+po-               [SUBJECT]          |
                          |             |
    'throw'           Agent         Theme         Goal
                          |             |
                          A             U
```
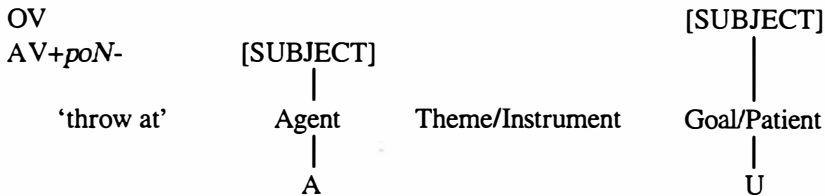
Our analysis also explains why the verbal affixation in the following examples (*poN-* in (20) and Objective Voice in (21)) requires that the Undergoer be interpreted as the target, not the missile:

(20) a. *Monokon (m-poN-tokon) okuh   do   kanas.*
                    AV-U$_t$-hurl   1SG.NOM ACC wild.pig
          I will spear a wild pig. (not *I will hurl a wild pig.)

      b. *Momilay (m-poN-pilay) okuh   poh do   mangga.*
                    AV-U$_t$-throw   1SG.NOM yet ACC mango
          I will throw something at mangoes (to knock them down).
          (not *I will throw a mango.)

(21) a. *Tokon-on kuh   i   kanas do   poring.*
          hurl-OV   1SG.GEN NOM wild.pig ACC bamboo
          I will spear the wild pig with bamboo.

    b. *Pilay-on   tekaw (kuh-ikaw)*[16]   *do   pampang!*
        throw-OV 1SG.GEN-2SG.NOM ACC stone
        I'm going to throw stones at you!

In (19), the target (i.e. the thing thrown at) gets dative case, the default case-assignment for goals. But when the target is selected as Undergoer, it gets accusative case as in example (20). The verb in (20) carries the prefix *poN-* as expected, since the target is clearly the endpoint of the action. When the target is selected as subject (example 21), the verb takes Objective Voice rather than Dative Voice. This suggests that it carries the patient thematic role, instead of (or in addition to?) that of goal. This fact may be derivable from the semantics of patient and goal, but for the moment we will simply assume that there are two distinct argument structures associated with such roots in the lexicon, one meaning 'throw' and the other meaning 'throw at'.

In the 'throw at' sense of these verbs, the target is the entity acted upon. The missile in these examples may carry either the theme or instrument role – the two cannot be distinguished here, because both roles get default accusative case. The argument structure of these examples is as follows:

```
OV                                                      [SUBJECT]
AV+poN-              [SUBJECT]                              |
                        |                                   |
     'throw at'        Agent      Theme/Instrument       Goal/Patient
                        |                                   |
                        A                                   U
```

6. 'SEMI-TRANSITIVE' VERBS

There is a small class of verbs in Kimaragang that are semantically transitive but seem to be morphologically intransitive. I refer to these as 'semi-transitive' verbs. This class includes the stems *sambat* 'meet', *waya* 'follow' or 'accompany', *sombol* 'visit', *susuy* 'walk along' or 'walk over', etc. The equivalent verbs in Polynesian are a subset of the class which Chung (1978) refers to as 'middle' verbs, as distinct from the 'canonical transitive' verbs. Chung (pp.47-48) states, 'Middle clauses exhibit a...case pattern which resembles that used for intransitive clauses containing an oblique NP'.

The status of grammatical objects in Philippine languages is a controversial issue. In most of these languages it is difficult to point to clear language-internal evidence of 'objecthood' properties, partly because of the unique voice system which does not include any traditional rule of passive. However, I identify the second arguments of semi-transitive verbs as grammatical objects (when they are not selected as subject) because they are obligatory arguments which always receive accusative case marking. These properties distinguish them from non-Undergoer instruments (which get accusative case but are not obligatory) on the one hand and non-Undergoer goals or locatives (which may be obligatory but take dative case) on the other.

---

[16]   The form *tekaw* is a phonologically irregular contraction of the pronouns *kuh* (1SG.GEN) and *ikaw* (2SG.NOM). It is used, like the form *kita* in Tagalog, when there is a first person singular Actor and a second person singular Undergoer-subject.

In Kimaragang, there are two morphological peculiarities of the semi-transitive verbs. Firstly, even though these verbs take a direct object, the prefix *poN-* does not appear. In this respect, they are similar to intransitive verbs. Secondly, the agent of these verbs is the default choice for subject assignment (as with intransitive verbs) even when the second argument (i.e. the object) is definite. The second argument of the verb is selected as subject primarily in relative clauses, cleft sentences or Wh- questions (as in (22b)). When this happens, the verb is marked for Locative Voice. This pattern is illustrated with the stem *waya* 'accompany':

(22) a. *Maya (m-waya) okuh   dikaw.*
              AV-follow 1SG.NOM 2SG.ACC
          I will come with you.

      b. *Isay ot   woyo'on (waya-on) nuh   t-um-alob?*
          who NOM   follow-LV 2SG.GEN [-AV-market
          Who will you go to market with?

Both of the morphological irregularities mentioned above can be explained by assuming that the second argument of these verbs is not projected onto the action tier (i.e. not marked as being an Undergoer). Because there is no Undergoer, no prefix will be required (or permitted) on the verb no matter which argument is selected as subject. Since the second argument is not an Undergoer, it will not have priority in subject selection even if it is definite. Thus the form of the verb found in (22a) will be the most frequent.

It is not clear what thematic role label is appropriate for the second argument of these verbs. Most of them seem related to goal- or path-like notions. For now I will simply use the label 'Locus' for these arguments, pending a more satisfying semantic analysis of this class of verbs. Note that 'Locus' must be distinguished from the 'locative' role of the unergative verbs in §4.2.
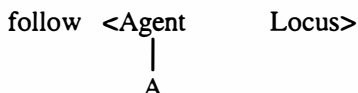
        follow <Agent   Locus>
                   |
   A

The claim that the second arguments of verbs like 'follow', 'meet', 'visit', etc. are not affected, as suggested by the above representation, seems reasonable on semantic grounds. Confirmation of this claim comes from the fact that the same stems can appear in affected (or true transitive) forms as well, with morphology which marks the second argument as being an Undergoer and corresponding changes in meaning. For example, the semi-transitive verb *waya* normally means 'follow' or 'accompany'. In its affected or transitive form, the verb takes on the meaning of 'escort', either for protection or encouragement. Compare the following (transitive) examples with the semi-transitive examples in (22) involving the same stem:[17]

---

[17] Notice that the verb form used in (22b) and (23a) is ambiguous between the affected and non-affected meanings of the verb. This ambiguity is eliminated in the past tense, where the Objective Voice marker is replaced by a zero-allomorph, as in (a) below. This zero-allomorph is the regular marker of Objective Voice in past tense forms in most if not all Philippine languages. However, as mentioned in fn.14, the Locative Voice marker *-on* does not delete in past tense, as illustrated in (b).
       a. *W-in-aya-Ø   okuh   dialo   muli   kosodoy.*
           [-PST-follow-OV 1SG.NOM 3SG.ACC go.home last.night
           He escorted me home last night.

(23) a. *Kada kosusa,   woyo'on   (waya-on)   tekaw(kuh-ikaw).*
      don't worry   follow-OV 1SG.GEN-2SG.NOM
      Don't be afraid, I will escort you (e.g. at night).

    b. *Yokuh   ot   mamaya   (m-poN-waya) di   Janama ong manansawo.*
       1SG.TOP NOM   AV-U$_t$-follow ACC Janama if   get.married
       I am the one who will escort Janama when he gets married (i.e. I will be the
       best man at Janama's wedding).

In the transitive sense of the verb, it is the second argument which is the normal choice of subject. The Actor may be selected as subject, primarily in relative clauses, Wh- questions or cleft sentences as in (23b). But if so, the verb must carry the prefix *poN-* (crucially absent in (22a)). Both of these facts, together with the semantic contrast, suggest that the Locus in example (23) is an Undergoer. The argument structure for (23) is as follows:

OV   [SUBJECT]
AV+*poN-*   [SUBJECT] |
                 | |
   'follow'   <Agent   Locus>
                 | |
                 A   U
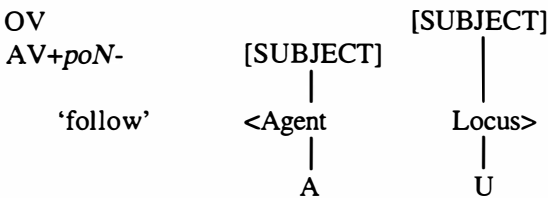
7. UNDERGOER VERSUS 'OBJECT'

I did not make reference to the notion 'object' in §2 to define the function of the affectedness prefixes. We could try to simplify the definition somewhat by treating the affectedness prefixes, *po-* and *poN-*, as some kind of object-agreement marker:

> *poN-* signals that the direct object is the endpoint of the action; *po-* signals that the direct object is distinct from the endpoint of the action.

In most cases, this formulation makes the correct predictions since when the Undergoer is selected as subject, there is no direct object. But in order to adopt this approach, one would have to assume that the objects of semi-transitive verbs are not direct objects, but rather some kind of restricted or secondary object. The morphological and semantic contrasts discussed in the preceding section strongly suggest that the objects of semi-transitive verbs (in their basic senses) are not Undergoers. If I am correct in analysing them as grammatical objects, then the rule governing the use of the affectedness prefixes must make reference to the category 'Undergoer' rather than 'direct object'.

Given the correlation noted by Jackendoff (1987) between Undergoers and direct objects in English, one might ask whether it is possible to dispense with the notion of Undergoer entirely. That is, if we adopt the assumption that the objects of semi-transitive verbs are not direct objects, then the notion of grammatical object might be enough to account for the morphological and semantic effects described above. Specifically, one might propose a 'rule of interpretation' of the sort argued *against* by Rappaport and Levin (1986:14-15) which

would assign an affected reading to the direct internal argument (i.e. the subject or direct object).[18]

But this approach has the effect of removing affectedness entirely from the semantic representation, which seems to be counter-intuitive. Moreover, it is difficult to see how the rule of interpretation could be stated in any insightful way strictly in terms of grammatical relations. One would have to say something like the following:

> Interpret the action as primarily affecting the direct object, if any. Otherwise, interpret the action as primarily affecting the subject, unless the verb is intransitive or semi-transitive.

This formulation obviously misses the underlying generalisation which can only be stated in terms of some notion equivalent to Undergoer. Similarly, under the ergative analysis proposed by Gerdts (1988) and Payne (1982), one could treat *po-* and *poN-* as being antipassive prefixes. But to make this analysis work, one would have to assume that the initial 2 is always the argument I have labelled the Undergoer. Alternations of the kind discussed in the previous sections would have to involve changes in the identity of the initial 2 (i.e. Undergoer), just as in the analysis I have offered above. Whether we express these as alternations in the linking to the direct internal argument position, initial 2 relation, or Undergoer, the effect is the same. They are alternations at the level of argument structure, which have systematic effects on both the morphosyntax and the semantics.

APPENDIX: ABBREVIATIONS AND SYMBOLS

A	Actor	PERF	perfective aspect (= past stative)
ACC	accusative case	PST	past tense
AV	active voice	SG	singular
DAT	dative case	STAT	stative aspect
DUP	reduplication	TOP	topic
DV	dative voice	U	Undergoer
GEN	genitive case	U_t	terminal Undergoer
IMP	imperative	U_n	non-terminal Undergoer
IV	instrumental voice	[-	initial consonant of root
LV	locative voice		(preceding infix)
NOM	nominative case	x-y	morpheme boundary
OV	objective voice	x.y	separates multi-word glosses

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b. *Ih Jim ot   w-in-oyo-on   kuh   m-ongoi sid kadai.*
    PN Jim NOM [-PST-follow-LV 1SG.GEN AV-go   LOC shop
    It was Jim that I went to town with.

[18] Of course, in their framework the direct internal argument at D-structure corresponds almost perfectly to what I have labelled the Undergoer.

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