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CASE MARKING STRATEGIES IN KOPE*

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1 Introduction

In this paper I will examine case marking strategies in Kope, a Papuan language of Papua New Guinea, in light of claims made by Foley (1986:92-98). Foley makes a basic distinction between 'core' and 'peripheral' case relations in his typological study of case marking in the Papuan languages of New Guinea. Core relations include actor and undergoer, while peripheral relations include instrument, locative, and temporal. Syntactically, Foley claims that most Papuan languages have one strategy for marking core relations, and another strategy for marking peripheral relations.

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1 Kope (or Gope) is one of five dialects making up the language referred to as North-East Kiwai by Wurm (1973). There are about 4000 speakers of the language, of which about 1300 speak Kope. It is a member of the Kiwai language family, spoken in the Gulf Province of Papua New Guinea. The data in this paper was collected by the author and Deborah Clifton under the auspices of the Papua New Guinea branch of the Summer Institute of Linguistics between June 1982 and May 1987.
A third group of relations discussed by Foley includes the beneficiary and recipient relations. Foley (1986:98) refers to these as 'middle-ground' relations on the basis that in some languages they are marked according to the strategy for core relations, while in others they are marked according to the strategy for peripheral relations. Foley does not discuss any languages in which these relations are marked according to a separate strategy.

In sect. 2 of this paper I show that, in line with Foley's claim, Kope follows different strategies for marking core as opposed to peripheral arguments. Then in sect. 3 I show that the beneficiary, recipient, and addressee relations are also marked as core arguments in Kope. In addition to normal agreement marking, however, the presence of these relations also triggers the presence of the verbal prefix Vm-. In sect. 4 I outline the wider use of this prefix. Finally, I discuss some typological implications of this marking system in sect. 5.

2 Marking of core and peripheral relations

In this brief grammatical overview I will discuss how core and peripheral case relations are marked in Kope. In sect. 2.1 I outline nominal case markings, while in sect. 2.2 I outline verbal agreement markers.

2.1 Nominal case marking

Kope is generally a verb-final language. In context, one or both core relations of actor and undergoer are frequently realized as zero anaphora, that is, there is no overt nominal or pronominal element present. Examples of intransitive and transitive sentences with overt core relations are given in (1-4).2

(1) Toriaha ubi odau-maka-umo.
   all people go-NEAR-PL
   All the people went.

---
2 All examples in this paper are written in current Kope orthography. The consonantal inventory includes p t k b d g m n' (glottal stop). The vocalic inventory includes i e a o u.
Grammatical abbreviations used in glosses include: PR(esent), NEAR(Past), MID(Past), FAR(Past), FUT(ure), DEC(larative), 1(ist)PER(son), P(ural)A(bsolutive), D(ual)A(Lterative), PL(ural), NEG(ative), 1(ist)s(ingular), 1(ist)p(ural), 2(nd)s(ingular), 3(rd)s(ingular), ERG(ative), SOU(rce), LOC(ative), GOAL, INS(trument), ACCOM(paniment), VOC(ative).
In addition, the suffix -i occurs on the final word in all noun phrases, and on many verbs. I have not separated this morpheme in the examples since it is not relevant to the phenomena discussed in this paper.
(2) Nu pei o'o-maka.
3s canoe make-NEAR
He made a canoe.

(3) Nu-ro Tiramu ea'a-maka.
3s-ERG Tiramu see-MID
He saw Tiramu.

(4) A'o odi mo-ro pi-r-oroadu'o.
this story 1s-ERG FAR-1PER-tell
I told this story.

As can be seen, the suffix -ro optionally marks the ergative case. The undergoer is never case marked, while the actor is generally unmarked in an intransitive sentence.³ Although the actor generally precedes the undergoer, this order can be reversed due to discourse considerations as shown in (4).

Peripheral relations are consistently realized as postpositional phrases. Foley considers such postpositions nominal case marking. Examples of the principal postpositions are given in (5-9).

(5) Ka mo-ro pei nioi da aiha pi-r-irudemea.
and 1s-ERG canoe inside LOC ? FAR-1PER-pray
I prayed inside the canoe.

(6) Nimo abeami'oi Bavi ato p-o'u-mo.
1p grandfather Bavi SOU FAR-come-PL
Our grandfathers came from Bavi.

(7) Mo go'otoi eito pi-r-o'u.
1s village GOAL FAR-1PER-come
I came to the village.

(8) Mo-ro beuma ito itai r-a'ai.
1s-ERG bamboo INS cook 1PER-FUT
I will cook using the bamboo.

(9) Merekehi p-orobu goroi da mo rautu.
child FAR-sleep inside LOC ls ACCOM
The child was sleeping inside with me.

Location is marked with da in (5), source with ato in (6), goal with eito in (7), instrument with ito in (8), and accompaniment with rautu in

³ Subjects of intransitive verbs are never marked when the sentence is produced in isolation. They do sometimes take the suffix -ro in discourse, although the conditions under which this occurs are not clear. Similar observations are made by Anderson and Wade (1989) for Folopa.
Although peripheral relations generally occur before the verb, they may occur after it as in (9).

In general, then, peripheral relations in Kope are obligatorily marked with nominal case marking. The situation for core relations is more complex. Undergoers are never marked with nominal case marking. Actors, on the other hand, are optionally marked with the suffix -ro, but generally only in transitive clauses. Although the picture is complex, however, it seems reasonable that the presence or absence of nominal case marking can be taken as evidence as to whether or not a particular relation is peripheral or core.

2.2 Verbal agreement affixation

Two verbal agreement affixes are useful in differentiating between core and peripheral relations in Kope. The first is the prefix r- seen in (5, 7, 8) above. In each of these examples it indicates the presence of a first person actor. Notice the r- does not appear in (6) where the first person *nimo* 'our' is not the actor but an adjectival modifier of the actor *abeami'oi* 'grandfathers.' It also does not appear in (9) where the first person noun phrase *mo rau tu* 'with me' bears a peripheral case relation. In (10), however, both verbs take r-.

(10) Ka mo ai-pi-r-omoto-ido,  r-i'i.
    and 1s -FAR-1PER-care.for-DL 1PER-grow
They took care of me, and I grew.

Mo 'I/me' is the undergoer in the first clause including the verb *omoto* 'to care for', but the actor in the second clause including the verb *i'i* 'to grow'. A verb, then, takes the agreement marker r- if and only if one of the core relations is first person. A peripheral relation which is first person will not trigger the agreement marker r-. As seen in (11), a verb is marked with r- even if the core relation which is first person is realized as zero anaphora.

(11) Nu moi  pi-r-oromidio-umo.4
    3s calling  FAR-1PER-hear-PL
We heard his calling.

The second agreement marker which is relevant to the core/peripheral distinction is i-. As seen in (12-15), i- is used when the absolutive is plural.

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4 The suffix -(u)mo is used when there is a plural subject. This suffix, then, is not relevant to this paper since I am dealing with nonsubject core relations.
(12) Nimo naarai im-i-o’uo-duumo;\(^5\) m-i-o’uo-dumo.
1p things ?-PA-go.down-PR ?-PA-go.down
Our things went down; they went down.

(13) Nu ga’aiha p-i-a’uubai.
3s bow.and.arrows FAR-PA-get
He got the bow and arrows.

(14) ...ka ooomoi-da’o r-i-obo-kame i-ho nai.
and river-LOC-? 1PER-PA-catch-NEAR PA-eat fish
...in the river we caught fish to eat.

(15) ...naarai im-i-dodiai.
things ?-PA-make
...he prepared his things.

This agreement marker is not obligatory on intransitive verbs which occur with plural actors. For example, it is present in (12) but not in (6) above. In the case of transitive verbs taking plural undergoers, however, the presence of \(i\)- is obligatory as in (13-15). As seen in (16), the \(i\)- prefix is present even if the plural absolutive is realized within the clause as zero anaphora.

(16) Ara ni’o boomoi; i-huti-mo.
this 2p pig PA-cut-PL
Here are your pigs; cut them.

As seen in (17), however, the prefix is not triggered by a plural ergative.

woman-and man-and sago FAR-pound.sago-DL
A woman and man were making sago.

Similarly, (18) shows that the prefix is not triggered by a plural peripheral relation.

(18) Kaida pi-r-a’o ni-ido, "...
then FAR-1PER-say 3p-GOAL
And then I said to them, "...

Thus, the presence or absence of the first person agreement marker \(r\)- differentiates between core and peripheral relations. In addition,

\(^5\) The morpheme \(im\)- 'i' is not a realization of the prefix \(V_m\)- which is the focus of this paper. First, as will be seen in sect. 4.1, the prefix \(V_m\)- should result in the meaning 'take down' when added to \(o’uo\) 'go down'. Second, as will be seen in sect. 3.1, the plural absolutive (PA) prefix precedes, not follows, the prefix \(V_m\).
the plural absolutive agreement marker \( i - \) differentiates between core absolutive relations and peripheral relations.

3 Marking of middle-ground relations

In this section I discuss the marking of the middle-ground relations, that is, beneficiary, recipient, and addressee. These relations are marked as core relations. In addition to the marking discussed in sect. 2, however, the presence of these relations triggers the presence of the verbal prefix \( Vm - \). Before I discuss the syntactic properties of \( Vm - \) it is necessary to make two observations about the morphology of this prefix. Examples of verbs with and without \( Vm - \) are given in (19).

\[(19) \quad \text{Unprefixed} \quad \text{Affixed} \quad \text{Gloss}\]
\[
\begin{array}{lll}
\text{a.} & \text{ododiai} & \text{omododiai} & \text{make} \\
\text{b.} & \text{eidai} & \text{emeidai} & \text{get} \\
\text{c.} & \text{ate} & \text{emate} & \text{fill} \\
\text{d.} & \text{idol'o} & \text{omodo'o} & \text{drop coconuts} \\
\text{e.} & \text{ididi} & \text{emidi} & \text{build} \\
\text{f.} & \text{o'o} & \text{eme'e} & \text{make canoe}
\end{array}
\]

The first observation relates to allomorphy in the verb roots. The majority of verb roots pattern similarly to (19a,b,c) in that they have identical allomorphs in prefixed and unprefixed forms. In other cases, however, verb roots have different allomorphs as illustrated in (19d,e,f). I have no explanation for this variation in root shape, so assume it is included in the lexical entry of each verb.

The second observation is that the prefix \( Vm - \) has two allomorphs, \( om - \) and \( em - \), depending on whether the initial vowel in the verb root is round or nonround. The form \( om - \) occurs before the round vowels \( u \) \( o \) as in (19a,d), while the form \( em - \) occurs before the nonround vowels \( i \) \( e \) \( a \) as in (19b,c,e,f). In the case of roots with more than one allomorph, the vowel of the prefix is determined by the vowel in the allomorph of the root that takes the prefix. As the actual underlying representation of the prefix is not relevant to this paper, I will continue to refer to it as \( Vm - \).

In sect. 3.1-3.3 I discuss the beneficiary, recipient, and addressee relations. I show that each relation is marked as a core relation. In addition, each requires the presence of the prefix \( Vm - \). I show that syntactically the presence of \( Vm - \) indicates a core relation has been added to the clause. At the same time I suggest that the semantics of \( Vm - \) are dependent to a large degree on the semantics of the verb root to which it is attached.
3.1 Beneficiary

The beneficiary relation is the most productive of the three middle-ground relations; that is, the beneficiary relation does not seem to be limited to verbs sharing common semantic characteristics. Examples of clauses with beneficiary relations are given in (20-24).

(20) I-odau-mo go'otai im-om-odo'o-mo.
?-go-PL coconut ?-Vm-drop.coconuts-PL
They went and dropped coconuts for him.

(21) Kiau-ka mere-oi em-idi-mo.
finish-DEC long.house-? Vm-build-PL
Then they built a long house for him.

(22) Merei gitorai im-om-ododiai...
person sleeping.place ?-Vm-make
She prepared a sleeping place for the person...

(23) ...oboi goe aiha p-em-eidai...
wife betel.nut ? FAR-Vm-get
...he got betel nut for his wife...

(24) Obo aiha p-om-ohau i-emehai ne'ei-da...
woman ? FAR-Vm-come.out ?-leave.ST place-LOC
He came out for the wife, to the place he left her...

In (20-21) the beneficiary is realized as zero anaphora; in (22-24) it is explicit. Beneficiary relations normally precede the undergoers. Beneficiary relations are never marked by nominal case marking. The first argument, then, that the beneficiary relation is core, not peripheral, is that it does not take nominal case marking.

The second argument is that a plural beneficiary triggers the plural absolutive agreement marker i- in the verb as seen in (25).

(25) Ka nu go'ooto uubi boomoi aiha p-i-m-ai'ia.
and 3s village people pig ? FAR-PA-Vm-kill
He killed a pig for his village people.

The absence of the e in the prefix Vm- is due to a rule of vowel deletion. In general, root initial e and u are deleted after the i- prefix; root initial o is deleted in some roots after this prefix. Examples of verb forms used with singular and plural absolutes are given in (26).
Thus, *im-* is from *i-Ym-* . In (25), the presence of *i-* must be due to the plural beneficiary nu go’oto o uubi 'his village people,' since the undergoer boomoi 'pig' is singular.

Each of the verbs in (20-24) is prefixed with *Vm-* . The verbs in (20-23) would normally be transitive in their unprefixed form, that is, they would take an actor and undergoer. The verb in (24) would normally be intransitive, that is, it would take an actor. None of these verbs, then, would take a beneficiary in their unprefixed forms. The function of the prefix *Vm-* , then, seems to be to indicate that the verb is taking an additional, beneficiary relation.

3.2 Recipient

The only verb in Kope which seems to take a recipient is *ema’ai* 'to give' as illustrated in (27-28).

(27) Ka pei o’o merei r-em-a’ai-kaumo.
    and canoe make.canoe person 1PER-Vm-do-PR
I give it to the canoe maker.

(28) Ka Iona iha mea du’i p-em-a’ai.
    and Jonah very good shade FAR-Vm-do
And it gave Jonah very good shade.

The verb *ema’ai* takes both an undergoer and a recipient, although generally one is realized as zero anaphora. Thus, in (27) the undergoer is realized as zero anaphora due to discourse considerations. Neither the undergoer nor the recipient generally take nominal case marking.6

A plural recipient, like a plural beneficiary, will trigger the plural absolutive prefix *i-*, as seen in (29).

6 I have found one sentence in which the indirect object is marked as GOAL.

Moo-ro, roi-do’o irei r-ema’ai madei...
1s-ERG 2s-GOAL-VOC that 1PER-give word
The words I have given you...
I do not have any explanation for this.
(29) Ohio-bai'oi im-i-ma'ai nu...
    boy-group ?-PA-give 3s
She gave it to the boys...
The implied undergoer in this clause is mi'oi 'soup'. Since mi'oi is
singular, it should not trigger the plural absolutive prefix. Therefore,
the prefix must be agreeing with the plural recipient. Since the
recipient does not take nominal case marking and triggers the plural
absolutive prefix, I conclude it is a core relation.

In this analysis I am proposing that ema'ai consists of the prefix
Vm- plus a root, with the prefix indicating the presence of the
recipient. If this is true, the root a'ai should take an undergoer.
There is, in fact, a root a'ai 'to do' which can be used in a number of
constructions. First, it can occur with other verbs as shown in (30).

(30) Oboi-ro aipoi a'ai bia.
    woman-ERG clear.garden do NEG
Women do not clear the bush.
It is not clear what meaning is added by a'ai in examples like this, as
it can be omitted with no apparent change in meaning.

More commonly a'ai is used with nouns as in (31-33).

(31) Ka mahuai r-a'ai-mo, ore, ore du mahuai.
    and feast 1PER-do-PL grub grub sago feast
And we make a feast, a feast with grubs and grub sago.

(32) Tomioi p-a'ai...
    traditional.dress FAR-do
He dressed up...

(33) Mo ure r-a'ai.
    ls cough 1PER-do
I'm coughing.

The nouns in (31-32) are concrete nouns, while the noun in (33) is
abstract. Other collocations of abstract noun + 'do' include mari a'ai
'do a laugh,' and toe a'ai 'do a fear.' The semantic link between the
unaffixed and affixed verbs a'ai and ema'ai is not as obvious as in the
cases of unaffixed and affixed verbs discussed in sect. 3.1. It is a
fact, however, that a'ai normally takes an undergoer, while ema'ai takes
both an undergoer and a recipient. Thus it is at least plausible that
the presence of a recipient relation is indicated by the verbal affix
Vm-. As in the case of beneficiary, then, the prefix indicates the
presence of an additional core relation.

This analysis of the recipient relation is somewhat clouded by the
fact that while ema'ai seems to be the most common form of 'to give,'
the forms *omoho*, *oha*, and *omoha* are also used by some individuals. In
many cases a single speaker will use more than one form of the verb. It
is unclear if *om* in *omoho* or *omoha* is synchronically analyzable as a
prefix. In the case of *omoho*, there is no form *oho*. In the case of *oha*
and *omoha*, there does not seem to be any difference in meaning between
the two forms; *oha* means 'to give' even though it clearly does not take
a prefix. Example (34) consists of two consecutive sentences taken from
a single text.

(34) Irai nimo merei-ro r-i-m-oha-dumo nau-ka.
but 1p person-ERG 1PER-PA-Vm-give-PR thing-DEC
But our children gave us things.
Nimo himia iomoto merei-ro, r-i-ha-dumo nau-ka.
1p self care.for person-ERG 1PER-PA-give-PR thing-DEC
The children whom we ourselves took care of gave us things.

The speaker used *imoha* (from *i+omoha*) in the first sentence and *inha*
(from *i+oha*) in the second in apparently identical contexts. In spite of
these problematic areas, it seems clear that the recipient relation is a
core relation since it does not take nominal case marking and it does
trigger the plural absolutive prefix. Thus, it seems reasonable to claim
that the initial *em* in *ema'ai* and the initial *om* in *omoha* and *omoho* is
the prefix *Vm-.*

3.3 Addressee

A third semantic relation, addressee, seems to function as a
middle-ground relation. Since syntactically it behaves differently from
beneficiaries and recipients, however, I am dealing with it separately.
The addressee relation occurs with verbs of speaking. For example, *a'o*
can be used as 'to say' without introducing a quotation as in (35), or
to introduce a quotation as in (36-37).

(35) Ro a'o-i a'ai madei ne'ei-da.
2s say-? FUT word place-LOC
You will say your words onto the tape.

(36) Ka aaba-ro a'o-i-ka, "...
and father-ERG say-?-DEC
And father would say, "...

(37) Kaida p-a'o-mo nu-ido, "...
then FAR-say-PL 3s-GOAL
And then they said to him, "...

When *a'o* is used to introduce a quotation, the addressee does not need
to be specified, as shown in (36). If the addressee is specified,
however, as in (37), it is marked with the nominal case marking *-ido*. In
addition, as shown above in (18), repeated here as (38), a plural addressee does not trigger the plural absolutive marker i- with the verb a'o.

(38) Kaida pi-r-a'o ni-ido, "..."
    then FAR-1PER-say 3p-GOAL
    And then I said to them, "...

The presence of nominal case marking and the absence of verbal affixation indicates the addressee is a peripheral relation with the verb a'o.

When a'o is prefixed with Vm- it can also be used without introducing a quotation as in (39) or introducing a quotation as in (40-41).

(39) Ida i-m-a'o-ka nu-ro.
    then PA-Vm-say-DEC 3s-ERG
    Then he told them.

(40) Merekehi em-a'o-ka, "...
    child Vm-say-DEC
    He told a child, "...

(41) Uei-ro Uei go'oto ubi i-m-a'o-ka,
    Uei-ERG Uei village people PA-Vm-say-DEC
    Uei told his village people, "...

In (40-41) the addressee relation takes no nominal case marking with the verbs ema'o and ima'o (from i+ema'o). In addition, a plural addressee triggers the plural absolutive prefix i- in (39,41), even when the plural addressee is realized as zero anaphora as in (39). With the verb ema'o, then, the addressee is a core relation.

Another verb of speaking is aho'o 'to call,' as shown in (42-43).

(42) "Ere, Umai-o," Umai-ito im-aho'o nu.
    oh Umai-VOC Umai-GOAL ?-call 3s
    "Oh, Umai," she called to Umai.

(43) Kiauka nu em-aho'o-ika.
    finish 3s Vm-call-DEC
    Finally they told him.

As in the case of a'o, in (42) the addressee occurs as a peripheral relation marked by the nominal case marking -ito with the verb aho'o, while it occurs as a core relation with the prefixed form emaho'o.

In summary, the treatment of the addressee relation is different than the treatment of the beneficiary and recipient relations. Neither
the beneficiary nor recipient relations are marked by nominal case marking; their presence is indicated by verbal agreement affixation. Both relations are always treated as core relations. The addressee relation, on the other hand, can be marked either by nominal case marking in which instance it is considered peripheral, or by verbal agreement affixation in which instance it is considered core. In the case of all three relations, however, the presence of the verbal prefix \( Vm^- \) always indicates the presence of an additional core relation.

4 The functions of \( Vm^- \)

Although the prefix \( Vm^- \) is used to indicate the presence of the middle-ground relations of beneficiary, recipient, and addressee as core relations, its use is not limited to these relations. In sect. 4.1 I examine the use of \( Vm^- \) to mark the presence of certain undergoer relations. Then in sect. 4.2 I discuss instances of multiple occurrences of \( Vm^- \). Finally, in sect. 4.3 I present some problematic occurrences of \( Vm^- \).

4.1 Undergoers

As was outlined in sect. 2.1, the undergoer relation does not take nominal case marking. In addition, its presence is not generally indicated by the prefix \( Vm^- \). An example is (44).

(44) \( \text{Tiramu-} \text{ro nimo r-i-a'\text{a-}a\text{-}maka}. \)
\( \text{Tiramu-ERG lp 1PER-PA-see-MID} \)
\( \text{Tiramu sees us.} \)

The fact that the verb takes the first person marker \( r^- \) and the plural absolutive marker \( i^- \), along with the fact that \( \text{nimo} \) does not take any nominal case marking, is evidence that the undergoer is a core relation.

There are two groups of verbs in Kope which are basically intransitive, but can take an undergoer when prefixed with \( Vm^- \). The first group includes at least two verbs, \( \text{oru'\text{o} 'to wash} \) and \( \text{uta'a 'to lie down} \). Examples of \( \text{oru'\text{o} 'to wash} \), are given in (45-46) with and without the prefix \( Vm^- \).

(45) \( \text{Nu p-oru'o.} \)
\( 3s \text{ FAR-wash} \)
\( \text{He washed (himself).} \)

(46) \( \text{Nu-ro merekehi p-om-oru'o.} \)
\( 3s\text{-ERG child \text{FAR-Vm-wash}} \)
\( \text{He washed the child.} \)

The unprefixed verb \( \text{oru'\text{o} } \) in (45) seems to be intransitive, while the prefixed verb \( \text{omoru'\text{o} } \) in (46) takes an undergoer.
Similarly, the unprefixed form of the verb *uta'a* 'to lie down' does not take an explicit undergoer. When this verb is prefixed with \( Vm^- \), however, it takes an explicit undergoer as seen in (47).

(47) \( \ldots \) boomoi aiha p-om-uta'a.  
\( \quad \text{pig} \quad \text{FAR-Vm-lay.down} \)  
\( \ldots \) laid the pig down.

Both *oru'o* and *uta'a* are logically reflexive in that they have an implied undergoer that is coreferent with the actor of the clause. The implied undergoer is not indefinite; that is, (45) cannot mean 'he washed someone'. Neither verb, however, may take an explicit undergoer. The prefixed verbs *omoru'o* and *omuta'a*, on the other hand, take an explicit undergoer which cannot be coreferent with the actor. Like other undergoers, those here do not take nominal case marking. Unlike other undergoers, however, their presence is indicated by the verbal affix \( Vm^- \). The undergoer relation is always a core relation, although it is marked in different ways depending on the verb involved.

The second group of basically intransitive verbs which can take an undergoer when prefixed with \( Vm^- \) are the verbs of motion. In terms of overall frequency in text, in fact, the most common use of \( Vm^- \) is on intransitive verbs of motion. There are a large number of such verbs indicating various directions. A few examples are given in (48).

(48)  
\( o'u \quad \text{come} \)  
\( odau \quad \text{go} \)  
\( odoro \quad \text{come in} \)  
\( ohau \quad \text{come out} \)  
\( ohi'iai \quad \text{come close} \)  
\( idiai \quad \text{go away from the river} \)  
\( odoi \quad \text{go toward the river} \)  
\( ahebui'a \quad \text{go in} \)  
\( ahemai \quad \text{go into water} \)  
\( oruo \quad \text{go down} \)  
\( ioro \quad \text{go up} \)  
\( iorai \quad \text{go up slightly} \)

These intransitive verbs of motion do not take any undergoer, explicit or implied. When they are prefixed by \( Vm^- \), however, transitive verbs result. Examples are given in (49-51).

(49) Hiou Taubada-ro r-i-m-ohu'o ara hapuou eito.  
here European-ERG 1PER-PA-Vm-come.out this side GOAL  
The Europeans brought us out to this side.
The transitive verb in each sentence is 'to take' or 'to bring'. The added relation in each sentence is an undergoer. Although the undergoer in (49) is realized as zero anaphora, the prefix ꜱ- indicates a first person core relation. Since the actor, Taubada, is not first person, the implied undergoer must be a core relation. In (50-51), the undergoers do not take any nominal case marking. Finally, the fact that the undergoers are plural in each of the examples triggers the plural absolutive prefix ꜱ- on the verb. All of these facts argue that the undergoer is a core relation.

The transitive verbs derived from verbs of motion are ambiguous since the prefix ꜱ- can also be used to indicate the presence of a beneficiary relation as seen in (24) above, repeated here as (52).

In cases of ambiguity, the context differentiates between the various meanings.7

4.2 Multiple prefixes

It is possible for a verb root to be doubly affixed with ꜱ- as shown in (53-55).

7 Further ambiguity can arise from the fact that some of these verbs have idiosyncratic meanings. For example, while omohau, from ohau 'to come out', may mean either 'to bring out' or 'come out for', it generally refers to either giving birth or fathering as in the following example.

Mo Imobai-ro pi-r-om-ohau.
Is Imobai-ERG FAR-1PER-Vm-come.out
Imobai fathered me.
In each of these examples a basic intransitive motion verb has been doubly prefixed. The resulting verb takes both an undergoer and beneficiary relation. Neither takes nominal marking. The presence of each relation is indicated by a separate occurrence of the verbal prefix \( Vm^- \).

4.3 Problematic forms

In sect. 3.2 it was noted that the presence or absence of \( Vm^- \) does not seem to make any difference in the pair omoha/oha. Another verb which seems to pattern the same way is shown in (56).

(56) Hoho atai aiha p-omo'oi;  
face another \? FAR-tie  
He tied the one end,  
aiha p-em-ehe'eai hoho atai im-otohiiti;  
\? FAR-Vm-turn.over face another \?-wrap  
he turned it around and wrapped the other end,  
ipi aiha p-om-omo'oi.  
middle \? FAR-Vm-tie  
he tied the middle.

The verb omo'oi is used in the first clause while omomo'oi is used in the last clause in this example, but there does not seem to be any difference between the two in meaning or number of relations each takes.

There are also other verbs in which the function of \( Vm^- \) is unclear. An example is given in (57).
The verb *urai* 'to close' is used three times in this example. The first two occurrences are unaffixed and take *oomoi* 'river' as the undergoer. The last occurrence is prefixed and takes *nai* 'fish' as the undergoer. The noun *nai* 'fish' cannot occur as an undergoer with the verb *urai* 'to close', since *urai* requires an undergoer which can be opened and closed. It is not clear what additional meaning is added by the prefix *Vm*- which would account for the change in meaning of the verb.\(^8\)

5 Some typological observations

In sect. 1, Foley’s (1986) distinction between core and peripheral relations was outlined. Syntactically, Foley claims the standard case marking strategy in Papuan languages is "verbal affixation for the core participants and nominal case for the peripheral ones" (p. 96). Verbal affixation is defined more precisely as "the presence of affixes to the governing verb agreeing in person and number, and often in gender, with a nominal of a particular case relation" (p. 93), while nominal case marking, as defined in sect. 2.1, includes postpositions. Given these definitions, Kope fits quite neatly into Foley’s typology thus far.

The treatment of the middle-ground relations of beneficiary and recipient in Kope does not fit so neatly into Foley’s typology. Foley outlines three marking strategies for middle-ground relations. One pattern is for all beneficiaries and recipients to take nominal case marking, and be treated as peripheral relations. This is obviously not the case in Kope. A second pattern is for all beneficiaries and recipients to be marked by verbal agreement affixation, and be treated as core relations. While beneficiaries and recipients are marked by verbal agreement affixation, addressees, which are closely related to recipients, can be marked either by verbal affixation or nominal case marking.

\(^8\) Stephen Levinsohn (p.c.) has suggested that there may be a causative or benefactive relation which could be paraphrased as 'They caused the fish to be blocked in' or 'They closed the river to the benefit/detriment of the fish.' This second possibility is intriguing, although I have no evidence that *Vm*- can ever be used in a detrimental situation.
The final pattern noted by Foley is for the beneficiary to be indicated by either verbal affixation or by nominal case marking. This is what is found in addressees in Kope. However, concerning this pattern, Foley states:

In all such attested cases, there is no simple dative case corresponding to both recipients and beneficiaries, but a distinct case for each; and the alternation applies only to beneficiary nominals, as recipients are unexceptionally core. (Foley 1986:97)

In Kope, however, recipients and beneficiaries are marked identically, while the alternation applies only to addressees, not to beneficiaries.

A subtype of this final pattern which is of interest in Kope is that reported for the unrelated highlands languages of Fore, Hua, and Dani. In these languages Foley reports that when the beneficiary is core, the verb is a compound verb including either 'to give' or 'to put'. Foley gives the following examples from Hua (taken from Haiman (1980:352-53)9) to illustrate this.

\[(58)\] Dgai-si' zu' kie.  
1s-BEN house build.3s  
'He built a house for me.'

\[(59)\] Zu' ki-na d-te  
house build-3s 1s-put.3s  
'He built me a house.'

Haiman's (1980:352-54) discussion of this pattern in Hua makes it clear it is restricted in a number of respects. First, the verbal construction in (59) cannot be used with a full noun phrase, while the nominally case marked form can. Second, the basic verb in the verbal construction must be transitive. Kope differs from Hua in both these aspects. However, it is interesting that the same verbal prefix is used for 'to give' as for beneficiaries, and that the relation between the derived verb ema'ai and the proposed basic verb a'ai is not semantically transparent. This raises the possibility that what is now the verbal prefix Vm- may actually have been the verb 'to give' at one time. In this scenario, the verb 'to give' would have been used to indicate the presence of the beneficiary. Later, the verb could have lost its status as an independent verb, being prefixed to the verb a'ai 'to do' to express its original meaning of 'to give'. Finally, the prefix could have been generalized to indicate the presence of any core relation not taken by the unprefixed verb.

Summarizing the present use of the verbal prefix Vm- in Kope, it always indicates the presence of an additional core relation. It does

\[9\] I am following Haiman's transcription where it differs from Foley's.
not, however, mark one, but four semantic relations. The specific properties of $V_m$ depend on which relation it is indicating. These properties fall into four categories: 1) what type of verb can take the relation in question, 2) whether the semantic relation between the unprefixed and prefixed form of the verb is transparent or not, 3) whether the relation in question must be indicated by the verbal affixation of $V_m$, and 4) whether the relation is core or peripheral if its presence is not indicated by verbal affixation. This information can be summarized as follows.

**Beneficiary:**

1. can be used on almost any verb
2. semantic relation is transparent
3. must be indicated by $V_m$
4. not applicable

**Recipient:**

1. can only be used on $a'ai$ (ignoring the dialectal forms $omoha$ and $omoho$)
2. semantic relation is not transparent
3. must be indicated by $V_m$
4. not applicable

**Addressee:**

1. can only be used on verbs of speaking such as $a'o$ 'to say' and $aho'o$ 'to call'
2. semantic relation is transparent
3. alternatively, can be marked by nominal case marking $-ito$
4. peripheral when marked with nominal case marking

**Undergoers:**

1. apparently can only be used on verbs which have implied reflexive meaning or verbs of motion
2. semantic relation is transparent
3. other verbs can take undergoers with no verbal affixation
4. core when unmarked for other verbs

More typological study is needed to see if similar prefixes are found in other Papuan languages.

**REFERENCES**

