Analogical levelling across constructions --
incorporated prepositions in Teop

1. Introduction

Teop is an Austronesian language spoken on the north-east coast of the island of Bougainville and is classified as Western Oceanic Meso-Melanesian North-West-Salomonic Nehan-North-Bougainville. The Nehan-North Bougainville languages show a number of unique characteristics such as noun classes and an extremely complex verb complex (Ross 1982, 1988: 251-253). Whether these features can be ascribed to the contact with Papuan languages, internal development or both must remain an open question for the time being since neither the Nehan-North-Bougainville nor the adjacent Papua languages Rotokas and Konua have been well researched.

This paper investigates five words - *ki* 'for, to', *me/mi* 1.'with', 2. 'for', *kahi* '(away) from', *suku* 'because of', *vo* 'towards to' - that introduce prepositional phrases and occur inside the verb complex as valence increasing morphemes. But what synchronically looks like the same operation is the result of two different grammaticalisation processes: valence increase through the incorporation of prepositions on the one hand and the prepositionalisation of serial verbs and a directional particle on the other. As these processes result in similar clause structures, we classify them as analogical levelling although they do not affect an inflectional paradigm, but constructions.

The data of this study comes from the documentation of the Teop language funded by the Volkswagen Foundation and carried out by Ruth Saovana Spriggs, Marcia Schwartz, Jessika Reinig, Yvonne Thiessen, myself and numerous local field assistants. Examples from the transcriptions of recordings or the edited versions thereof are identified by their DOBES archive file name and the number of the utterance or the sentence, whereas examples from the Teop-English Dictionary are identified by the label TD plus the headword under which they are found. Unmarked examples come from my field notes.

In the following we start with a brief overview of those syntactic structures that are relevant for our topic and then turn in section 3 to the description of the syntax of Teop prepositions and the origins of their construc-
tions. Section 4 summarises the findings and reconstructs the processes of analogical levelling.

2. Teop phrase and clause structure

As other Oceanic languages, Teop is a configurational language. The immediate constituents of clauses are noun phrases, verb complexes and prepositional phrases that are well defined by particles and clitics such as articles, TAM markers and prepositions, and their fixed internal order of constituents.

\[ \text{ART rat TAM eat IMPF:3SG O.ART banana} \]

'The rat is eating the banana.'

2.1. Constituent order and case marking

The grammatical relations of subject, primary object and secondary object are distinguished by the interaction of constituent order, two case marking articles and two kinds of cross-referencing markers in the verb complex. In (1) the constituent order is

\[ \text{TOPIC VC OTHER ARGUMENTS} \]

The verb complex holds the second position, unless the topic has been ellipsed. In this case the clause starts with the VC. Thus the basic word order is:

\[ \text{TOPIC V OTHER ARGUMENTS} \]
which is a common feature of Oceanic Bougainville languages (Ross
1982:9). The order of the post-verbal non-topical arguments follows the
hierarchy subject < primary object < secondary object.

Topics and subjects are marked by the basic article, e.g. the topical sub-
ject a keusu 'the rat' in (1), the topical object a pauna 'the banana' in (3) and
the non-topical subject a keusu in (3). While subjects always take the basic
article, the choice of article of non-topical objects depends on the person of
the subject. With third person subjects as in (1), a non-topical object takes
the object article, e.g. bona pauna 'the banana', with first and second per-
son subjects, however, the object also takes the basic article, e.g.

(5) **Enaa na ani nom a pauna.**
    1SG TAM eat IMPF:1SG ART banana
    'I am eating the banana.'

With ditransitive verb complexes the secondary object takes the object
article unless both the subject and the primary object are a first or second
person or the secondary object is the topic and holds the first position of
the clause.

(6) **Enaa na asun va-mate nom a keusu bona vasu.**
    1SG TAM hit ADV-dead IMPF:1SG ART rat O.ART stone
    'I am killing the rat with a stone.'

Both the basic and the object article are inflected for noun class and num-
ber (see Mosel & Spriggs 1999a).

In accordance with the article selection rule, the third person object
pronouns have two forms, the basic pronoun e/eve/e 3SG and ori 3PL, and
the object pronoun bona 3SG (only used with singular subjects) and bari
3SG/3PL. If both the subject and the primary object are first or second per-
sons, the secondary object is expressed by the basic pronoun of the third
person (43).

The two cross-referencing markers mentioned above are the object mar-
er that cross-references primary objects of all persons except for the third
person singular, e.g. the 3PL object marker ri in (7), and the imperfective
aspect marker that inflects for person and number, cf. nana IMPF:3SG in (1) and (3) and nom IMPF:1SG/2SG/1EXC/2PL in (4, 5, 7).

(7)   Enaa na asun va-mate ri nom
      1SG TAM hit ADV-dead OBJ:3PL IMPF:1SG
      a maa keusu bona vasu.
      ART PL rat O:ART stone
I am killing the rats with a stone.

The imperfective aspect marker cross-references the subject unless the subject is a 3rd person and the object a 1st or 2nd person. In this case it cross-references the object (35, 39).

The paradigms of the object marker and the imperfective aspect marker show some syncretism. The object marker ama cross-references 1SG and 1EXC.PL objects and the imperfective aspect marker nom 1SG, 2SG, 1EXC.PL and 2PL subjects or objects.

2.2. The structure of the verb complex

In addition to the nucleus (V₁) and TAM markers, the verb complex can contain several lexical and grammatical elements which can lead to extremely complex structures (Reinig 2000, 2004):

- an incorporated noun (N)
- serial verbs (V₂, V₃ ...)
- adverbs (ADV₁ ADV₂...)
  - a discontinuous negation (NEG ... NEG), e.g. sa(ka) ... haa
  - a directional marker (DIR, e.g. maa 'hither', nao 'thither')
  - an applicative marker (APP), ni
  - an incorporated preposition (PREP)
  - a cross-referencing object marker (OBJ)
  - the post-verbal marker u that expresses immediateness (IM)

The sequential order of the verb complex constituents is:

| NEG TAM ADV₁ V₁ V₂ V₃ | NEG ADV₂ APP PREP OBJ DIR IM ADV₄ IMPF |

With the exception of a few adverbs (ADVᵳ), all lexical elements occur together in the interior of the verb complex between the two negative particles, whereas grammatical words are placed at the periphery, several of them forming brackets like the discontinuous negation, certain pronominal
TAM markers with the immediateness marker (IM) or the imperfective aspect marker.

In the following example, for instance, the verb complex contains the nucleus *voosu* 'return', the prenuclear TAM marker *toro* 'must', the serial verb *varavihi* 'hide', the adverb *bau* 'perhaps' and the directional particle *maa* 'hither, towards the place talked about'.

(8)  
\[
\begin{array}{lllll}
\text{Enaa} & \text{ne} & \text{toro} & \text{voosu} & \text{varavihi} & \text{bau} \\
\text{1SG} & \text{CONJ} & \text{must return hide} & \text{perhaps} \\
\text{maa} & \text{te-} & \text{a} & \text{bon}.
\end{array}
\]

'DConsequently I must perhaps come back hidden in the night.' (Pur 5.34)

In the next example the discontinuous negation *sa(ka) ... haa* encloses the prenuclear TAM marker, the nucleus *paku* 'do' and its lexical modifier *vamataa* 'well'.

(9)  
\[
\begin{array}{llllllll}
\text{... o-} & \text{re} & \text{sa} & \text{paa} & \text{paku} & \text{va-} & \text{mataa} & \text{haa} \\
\text{3SG/PL} & \text{CONJ} & \text{NEG TAM do ADV- good} \\
\text{bona} & \text{kiu}.
\end{array}
\]

'.. then he would not do the work well.' (Purupuru 1.178)

But the negation *saka ... haa* excludes an incorporated preposition and the imperfective aspect marker:

(10)  
\[
\begin{array}{llllllll}
\text{A} & \text{kiu} & \text{bona} & \text{saka} & \text{mataa} & \text{haa} \\
\text{ART} & \text{work} & \text{DEM} & \text{NEG good NEG} \\
\text{k-a} & \text{nom} & \text{anaa}.
\end{array}
\]

'DThis work was not good for me.' (Purupuru 1.170)

In (10) the imperfect aspect marker *nom* agrees with the object because the object ranks higher in the person hierarchy than the subject. The preceding example also illustrates that the valence of the verb complex can be increased by the insertion of a preposition. Here it is the preposition *kilk*-that relates to recipients, addressees and beneficiaries, and is therefore glossed as DAT (dative). Without the preposition the verb complex would be intransitive, with the imperfective aspect marker agreeing with the subject.
2.3. Valence

Teop has intransitive, transitive and a surprisingly high number of ditransitive verbs. Ditransitive verbs show two types of semantic role structures. With the first type the primary object refers to a patient and the secondary object to an instrument as in (6, 7), whereas with the second type of verbs the primary object is a dative (recipient, beneficiary or addressee) and the secondary object a theme:

Table 1. Ditransitive verbs

<table>
<thead>
<tr>
<th>Verb</th>
<th>primary object</th>
<th>secondary object</th>
</tr>
</thead>
<tbody>
<tr>
<td>navu</td>
<td>patient (person, animal)</td>
<td>instrument (e.g., 'stick')</td>
</tr>
<tr>
<td>nahu</td>
<td>patient (food)</td>
<td>instrument (e.g., 'saltwater')</td>
</tr>
<tr>
<td>hee</td>
<td>recipient (person)</td>
<td>theme (thing)</td>
</tr>
<tr>
<td>dao</td>
<td>recipient (person, thing)</td>
<td>theme (name)</td>
</tr>
</tbody>
</table>

(12) A si inu bona na dao ri-ori
    ART little house DEM TAM call IMPF:3PL-3PL
    bona hai.
    ART nest
    ‘The little house, they call a nest.’ (Kaetavara 2.10)

In ditransitive constructions the primary object typically ranks higher on the animacy scale than the secondary object; first and second persons can only function as primary objects.

As in other Meso-Melanesian languages (Mosel 1984:145-152), the valence of verbs must be distinguished from the valence of VCs as these two kinds of valence are not necessarily the same. When in Teop a VC with a transitive verb as its nucleus incorporates an object noun, the VC becomes intransitive; or conversely, the valence of the VC is increased when an intransitive verb is combined with the applicative marker. In addition, both
intransitive and transitive verbs can be combined with incorporated prepositions yielding transitive and ditransitive VCs, respectively. A third valence increasing construction is verb serialisation.

*Table 2. Valence of verbs and verb complexes*

<table>
<thead>
<tr>
<th>Valence of V</th>
<th>kind of valence change</th>
<th>structure of VC</th>
<th>valence of VC</th>
</tr>
</thead>
<tbody>
<tr>
<td>V\text{tr}</td>
<td>detransitivisation by noun incorporation</td>
<td>(V\text{tr} + N)</td>
<td>V\text{C}_{\text{itr}}</td>
</tr>
<tr>
<td>V\text{ir}</td>
<td>valence increase by applicative</td>
<td>(V\text{ir} + APP)</td>
<td>V\text{C}_{\text{ir}}</td>
</tr>
<tr>
<td>V\text{ir}</td>
<td>valence increase by preposition incorporation</td>
<td>(V\text{ir} + PREP)</td>
<td>V\text{C}_{\text{ir}}</td>
</tr>
<tr>
<td>V\text{tr}</td>
<td>valence increase by preposition incorporation</td>
<td>(V\text{tr} + PREP)</td>
<td>V\text{C}_{\text{dtr}}</td>
</tr>
<tr>
<td>V\text{ir}</td>
<td>valence increase by verb serialisation</td>
<td>(V\text{ir} + V\text{ir})</td>
<td>V\text{C}_{\text{ir}}</td>
</tr>
</tbody>
</table>
2.4 The applicative particle *ni*

As mentioned above, the applicative marker *ni* transitivises intransitive VCs, compare:

(13) *Enaa na tamaka nom.*
    1SG TAM sad IMPF
    ‘I am sad.’

(14) *Enaa na tamaka ni nom. ee.*
    1SG TAM sad APP IMPF 3SG
    ‘I am sad about it.’ Purupuru 2.394.

The applicative marker *ni* can be regarded as a reflex of a Proto-Western-Oceanic valence changing enclitic *ni* within the VC that according to Ross developed from a so-called prepositional verb in Proto Oceanic (cf. Ross 1988: 111, 378f). Prepositional verbs are words “which connect a verb with its grammatical object” (Pawley 1973:142).

In Teop, *ni* is detached from the verb and occurs as a particle after the lexical modifiers and the negation *haa* in the VC (cf. section 2).

(15) *me-ori paa sikuuru va-mataa kasi*  
    and-3PL TAM school ADV-good probably
    *ni*  
    APP DIR before ART PL thing grammar
    *maa roho bona maa taba, grammar*  
    of PREP ART- language of English
    ‘and probably they had been well educated about the things, the grammar of English.’ (Purupuru 1.54)

The semantic role of the applied object is directly related to the lexical semantics of the verb and seems to be predictable. It expresses for example

(16) the CONTENT with verbs of speech and thought
    moroko *ni*  
    ‘speak about’
    vahutate *ni*  
    ‘tell stories about’
    nata *ni*  
    ‘know about’

    the CAUSE with verbs of physiological reactions
    dadana *ni*  
    ‘shake, shiver because of’
    mate *ni*  
    ‘die of’
the STIMULUS/TARGET of psychological verbs:

- hevee ni 'be angry about'
- mararae ni 'be happy about'
- naabu ni 'be afraid of'
- tamaka ni 'be sad because of'

Activity verbs that in their unmarked form have a patient as a primary object and optionally an instrument as a secondary object, e.g. *booboha* 'break s.th.', *kanakana* 'scrape s.th.', can be combined the applicative particle in order to promote the instrument to the primary object position, e.g. *booboha ni* 'use for breaking', *kanakana ni* 'use for scraping' (Aro_4.103 and 109).

### 2.5 Serial verbs

The nucleus of a VC can be modified by a serial verb. When a transitive verb modifies an intransitive nucleus, the VC becomes transitive. Transitivisation of VCs by serial verbs is not uncommon in Oceanic languages (François 2004:124ff, Mosel 1984:128f).

(17) \[\text{Enaa na kikisi oha- u nom} \]
\[\text{1SG TAM strong pass OBJ:2SG IMPF.1SG an.} \]
\[\text{2SG.OBJ} \]
'I am stronger than you.' (Val 2 ed. 10)

(18) \[\text{... me ori paa taneo popo potee} \]
\[\text{and 3PL TAM start live be.like} \]
\[\text{bona bua tom tana.} \]
\[\text{O.ART two REC couple} \]
'... and they started living together like a couple.' (Nah 2 ed. 103)

### 3. Teop prepositions

Teop has six prepositions which on the basis of distributional criteria can be classified into three types.

*Table 3. Prepositions*
All of them can introduce prepositional phrases in the function of clausal adjuncts as the following examples illustrate:

(19) o re paa pahin hovo nao
    3SG/PL CONJ TAM immediately enter DIR
te- a inu vai
    PREP- ART house this
‘and they would immediately go into this house’ (Buasiana 2.62)

(20) eori he paa mee tagihu
    3PL CONJ TAM take go.into.the.bush
ama- u anam,
    OBJ:1EXC IM 1EXC.PL.
me bona vateen guu ...
    with O.ART knapsack pork ...
‘they took us further inland with a knapsack of pork’ (Buasiana 1.9)

(21) eori re vavaasun ta inu
    3PL CONJ build NSPEC.ART house
ki bene masta
    DAT O.ART master
‘so that they would build a house for the master’ (Siimaa 2.76)

(22) Huriki a rokoroko vaarau a mate
    remove ART frog DEM ART dead
kahi bona hanana.
    from O.ART road
‘Remove the dead frog from the road.’ (TD huriki)
(23)  *O paku na paku ri-ori*
  ART feast TAM make IMPF:3PL-3PL
  *suku bona vatavatava-i.*
  because O.ART *tavatava-ceremony-DEM.*

They make a feast for this *tavatava ceremony.*
(lit. “The feast, they make ...”) (Mark Mahaka 2.265)

(24)  *Murinae enam paa aha eve*
  after.that 1EXC TAM grate 3SG
  *te-o iaha vo te-a besin.*
  PREP-ART grater GOAL PREP-ART BOWL

‘Then we grate it with the grater into a bowl.’ Hel_1.12-13

The subclassification of the prepositions given in table 3 is based on the following criteria:

- the kind of complement the preposition governs: (1) a noun phrase with the basic article or a basic pronoun, (2) a noun phrase with the object article or an object pronoun; or (3) a locative construction, i.e. a local adverb, a bare locative noun phrase or a prepositional phrase introduced by *te*;
- whether or not the preposition can be incorporated into the verb complex.
Table 4. Classification of prepositions

<table>
<thead>
<tr>
<th>type</th>
<th>complement</th>
<th>incorp.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 te</td>
<td>NP with basic article, basic pronoun</td>
<td>no</td>
</tr>
<tr>
<td>2 me/mi, ki/k-, kahi, suku</td>
<td>NP with object article, object pronoun</td>
<td>yes</td>
</tr>
<tr>
<td>3 vo</td>
<td>locative</td>
<td>yes</td>
</tr>
</tbody>
</table>

The division between type 1 and type 2 prepositions is widely spread in Oceanic languages and has been reconstructed for Proto-Oceanic (Lynch et al. 2002:79f, 87). For Proto-Meso-Melanesian we find *ta as a locative preposition, *ka as a 'benefactive preposition' and *ma as comitative preposition (Ross 1988: 110, 118, 274, 352).

For Proto-North-Salomonic Ross (1988:252) also reconstructs the benefactive preposition *ka and the comitative preposition *ma and says about Petats and Teop that these prepositions “have been captured by the verb and enclosed within the verb phrase, separated by other elements from the noun phrases whose case they mark”. Our data, however, show that both prepositions are also used as true prepositions that introduce prepositional phrases outside the VC (see the examples (20, 21) above).

Note that the second class of prepositions, i.e. ki/-k-, me/mi kahi, suku do not form a homogenous group; each of them shows some peculiarities as will be seen below.

3.1. te 'of, in, at, to, from'

The preposition te governs noun phrases with the basic article and basic pronouns. As in other Meso-Melanesian languages, it has a wide range of meanings and introduces prepositional phrases which function as attributes, predicates and adjuncts. In our first example, te marks the possessor of a nominal alienable possessive construction:

(25) a baara te Kakato,
    ART ball PREP.ART Kakato
    'Kakato's ball, my ball'
The preposition *te* is the only preposition used in this possessive function; in contrast to other Oceanic languages, Teop lacks possessive classifiers. In the next example the prepositional phrase introduced by *te* functions as a locative clausal adjunct.

(26)  

\[
\begin{array}{cccc}
\text{ART} & \text{guardian} & \text{NEG} & \text{come.from} & \text{NEG} \\
\text{tei-na} & \text{te-} & \text{a} & \text{vuaba} & \text{te-an}?
\end{array}
\]

The guardian does not come *from your clan*? (Buasiana 1.85)

The semantic interpretation of *te* is not inherently given, but depends on the context. With verb complexes which express a state of being or an event that occurs at a certain place, the prepositional phrase refers to the location, whereas with goal oriented verb complexes of motion or transfer, it refers to the goal and with source oriented verb complexes to the source.

### Table 5. Semantic roles of *te*-prepositional phrases

<table>
<thead>
<tr>
<th>location</th>
<th>goal</th>
<th>source</th>
</tr>
</thead>
<tbody>
<tr>
<td>tei, tii</td>
<td>be</td>
<td>nao</td>
</tr>
<tr>
<td></td>
<td>go (to)</td>
<td>tavus</td>
</tr>
<tr>
<td>bia</td>
<td>sit</td>
<td>noma</td>
</tr>
<tr>
<td></td>
<td>come (to)</td>
<td>arin</td>
</tr>
<tr>
<td>obete</td>
<td>lie</td>
<td>suguna</td>
</tr>
<tr>
<td></td>
<td>arrive (at)</td>
<td>gono</td>
</tr>
<tr>
<td>goroho</td>
<td>lie, sleep</td>
<td>vaati</td>
</tr>
<tr>
<td></td>
<td>place (at, in, on)</td>
<td>kapith</td>
</tr>
<tr>
<td>sun</td>
<td>stand</td>
<td>vaasun</td>
</tr>
<tr>
<td></td>
<td>make stand (at, in)</td>
<td>from</td>
</tr>
</tbody>
</table>

3.2. The preposition *me/mi* 'with' and 'for'

The preposition *me/mi* (*ma*) is usually incorporated into the verb complex, and then behaves exactly like the applicative particle *ni* .

(27)  

\[
\begin{array}{cccc}
\text{1EXC} & \text{TAM} & \text{be.the.same} & \text{with-OBJ:3PL} & \text{IMPF:1EXC} \\
\text{a} & \text{maa} & \text{moon} & \text{vaa} & \text{Buka} \\
\text{ART} & \text{PL} & \text{woman from} & \text{Buka}
\end{array}
\]

'We are the same as the women from Buka.' (Vosunana 1.40)
(28)  E   Kakato   saka   hagi   haa   mi   nana
       ART  Kakato  NEG  dance  NEG  with  IMPF:3SG
   bene   Gatana
O.ART  Gatana
'Kakato does not dance with Gatana.'

The incorporation increases the valence of the VC and promotes the object of the preposition to the position of a primary object. Consequently, this object is subject to the article selection rule and is cross-referenced by the object markers within the VC.

3.3.  *ki / k*- 'for, to'

The preposition *ki / k*- marks beneficiaries, addressees and recipients and is therefore glossed as DAT. Prepositional phrases introduced by *ki* can function as a predicate in non-verbal sentences and occur as an adjunct in verbal clauses much more frequently than prepositional phrases introduced by *me/mi*. In other words, *ki* seems to have preserved its status as a preposition more strongly than *me/mi*.

(29)  A       maa       iana       ki       bene       teiee?
       ART    PL.  fish  DAT  ART  who
'The fish are for whom?'

(30) Enaa  na  von  a  sosopene  a  voon
     IEXC TAM  buy  ART  saucepan  ART  new
   ki       bene       iaa.
       DAT  ART  Mum
'We bought a new saucepan for Mum.'

When the prepositional phrase functions as a predicate or an adjunct, the noun phrase governed by *ki* has the object article. In the example above, the patient NP *a sosopene a voon* 'a new saucepan' is the primary object and the beneficiary *ki bene iaa* 'for Mum' is the adjunct. According to the article selection rule, the primary object NP has the basic article (*a, e, o*)
and the NP governed by the preposition has the object article (bona, bene, bono).

But when ki is incorporated, the beneficiary becomes a primary object, whereas the patient or theme becomes a secondary object:

(31) *Enam na von ki ma-e iaa*
    1EXC.T TAM buy DAT DIR-ART Mum
    *bona nahu a voon.*
    ART pot ART new
    'We bought Mum a new pot.' (TD nahu)

Here the beneficiary NP (*e iaa*) has the basic article because it is the primary object and the subject (*enam 'we') is not a third person, whereas the patient NP (*bona nahu*) is the secondary object and has the object article.

In other words, the incorporation of ki promotes the adjunct to a primary object and at the same time demotes the former primary object to a secondary one. Thus the incorporation of ki makes a transitive VC ditransitive.

But the incorporation of ki can also increase the valence of intransitive VCs:

(32) *Na aheahe nana.*
    TAM sing IMPF:3G
    'She/he is singing.'

(33) *Na aheahe ki nana bene Kakato.*
    TAM sing DAT IMPF:3SG ART Kakato
    'She is singing for Kakato.'

As in the case of the preposition me/mi, the promoted object is cross-referenced by an object marker if it is a third person plural or a first or second person.

(34) *Enaa sue bata ki- ri nom ori.*
    1SG tell SIMUL DAT OBJ:3PLIMPF:1SG 3PL.OBJ
    'I tell them now and then.' (Purupuru 1.234)
In addition to the constructions where the \textit{ki} functions as a marker for benefactives, addressees and recipients, there is one construction where it has adopted the function of a purely grammatical case marker. This is the construction of the applicative \textit{ni} and the comitative \textit{me/mi} with pronominal objects. While third person objects are expressed by the basic or the object pronoun, first and second person objects need to be marked by the dative preposition. Put differently, the applicative and the comitative govern first and second person pronouns in the dative case.

(36) \textit{Enaa na tamaka ni nom e.}  
\hspace{0.5cm}1SG TAM sad APP IMPF 3SG  
'I am sad about it.' (Purupuru 2.444)

(37) \textit{Enaa na hevee kurus ni ki-u nom an.}  
\hspace{0.5cm}1SG TAM angry very APP DAT-OBJ:2SG IMPF:1SG 2SG.OBJ  
'I am very angry with you.' (Purupuru 2.454)

(38) "Ah, \textit{eam paa paku}  
\hspace{0.5cm}Ah 2PL TAM do  
\hspace{0.5cm}me k-a ma-u anaa enei  
\hspace{0.5cm}with DAT-OBJ:1SG DIR-IM 1SG.OBJ DEM  
"'Ah, you have done this with me.' (Sii 6.460)

(39) \textit{a abana re-paa kahu-kahu uriha me}  
\hspace{0.5cm}ART men CONJ-TAM RED-carve club for \textit{k-a nom anaa}  
\hspace{0.5cm}DAT-OBJ:1SG IMPF:1SG 1SG.OBJ  
'... the men would carve fighting clubs for me (i.e. to kill me).' (Buasiana 1.229)
3.4. *kahi* 'from' and *suku* 'because of'

At first sight, *kahi* 'away from, leaving s.th.' and *suku* 'because of, according to' seem to be prepositions of the same kind as *ki*. They introduce adjuncts (22, 23) or are incorporated in the VC. If the verb is intransitive, the VC is transitivised and the objects of *kahi* and *suku* are promoted to primary objects.

(40) *Huriki a rokoroko vaarau a mate kahi bona hanana.*

![Language](https://example.com/language.png)

'Remove the dead frog from the road.' (TD *huriki*)

(41) *me paa rosin gunaha kahi bata maa bono vioga.*

![Language](https://example.com/language.png)

'and (he) fled (climbing) down from the betelnut palm.' (Val 2 ed.19)

(42) *Tavus suku bata maa-ri bona maa tobara upee te-ori.*

![Language](https://example.com/language.png)

'(They) appear because of their upee boys (i.e. the boys that are initiated).' (Buasiana 1.250)

But the position of *kahi* and *suku* within the VC is different, both holding the position of serial verbs which precede the adverb *bata* 'simultaneously', whereas the incorporated prepositions *ki* and *me/mi* and *vo* and the applicative particle *ni* follow *bata* (43, 44)

(43) *Enaa pasi suusue bata ki- u nom an ie havee to kahi paku 2SG.OBJ 3SG.OBJ what REL FUT do bata me nom an ie.*

![Language](https://example.com/language.png)

*SIMUL with IMPF:2SG 2SG.OBJ 3SG.OBJ*
'I will tell you about it, how you will do it (lit. how you do with it).'
(Purupuru 1.134)

(44) Toro nata bata ni nom eam.
must know SIMUL APP IMPF 2PL
'You must know him.' (Purupuru 1.173)

Neither kahi nor suku are attested as verbs, i.e. as the head of a verb complex in our corpus. But there is some evidence that they could have been verbs earlier. The interjection kahii 'nevermind, leave it alone, forget it' can be interpreted as kahi-i 'leave-3SG', whereas suku is attested in the mountain dialect as the equivalent of murina 'follow' of the coastal dialect (Ruth Saovanna Spriggs, p.c.). There are also a number of verbs in our data that can be used like prepositions, e.g. antee 1. v., stop, 2. prep., until; po-tee 1. v., be like, 2. prep. like.

While within the Oceanic language family, the incorporation of prepositions seems to be restricted to the North Bougainville languages, the "prepositionalisation" of verbs is a more common phenomenon. Thus in Tolai, a Meso-Melanesian language of the New-Ireland-languages branch, we find tatar 1. v., 'give, take to', 2. prep., 'towards to' and taun 1. v., 'press down', 2. prep., 'over' (Mosel 1984: 185f).

3.5. vo

The preposition vo is polysemous. Its basic meaning is 'to, towards' (GOAL), but in certain contexts it can also take on the meaning 'the way in which s.th. is done, like'. Furthermore, with verbs of speaking and thinking it relates to phrases or clauses expressing what s.o. says or thinks.

(45) "Ean mene dee to leta
2SG TAM take NSPEC.ART letter
vo te-a national government."
GOAL PREP-Art national government
"You might take a letter to the national government."
(Purupuru 2.73-74)
Analogical levelling across constructions 19

(46) Me-naa paa boha vo-en, "Ah."
     and-1SG TAM say like-DEM yes
'And I said, "Yes."' (Purupuru 2.183)

Vo 'to, towards' always governs a locative expression, i.e. an adverb, a bare locative NP, a demonstrative or a prepositional phrase introduced by te. It is much more frequently found inside the verb complex than outside, but in contrast to the applicative marker and the prepositions, it does not change the valency of the VC and affects neither the form nor the syntactic function of the phrase referring to the goal, as can be seen in the next example.

(47) O vahara beiko paa nava vo nao- u
     ART little child TAM dive GOAL DIR- IM
te - a govee bom.
     PREP-ART hole bomb
'The children dived to the hole of the bomb.' (TD nava)

Here vo is inserted between the nucleus nava and the directional particle nao 'away from the speaker, away from the place being talked about'.

Historically, vo seems to be related to the Proto-Oceanic directional particle *uatu('towards hearer') (Lynch et al. 2002: 85). This hypothesis could be supported by the fact that vo does not change the valence of the verb complex; it would also explain the fact that vo combines only with prepositional phrases introduced by te and other locatives. In other words, vo is not a genuine preposition, but originally a directional particle. However, it obviously has lost its function as a directional particle. The directional particle for 'away from the speaker towards a certain goal' is now nao, and as we have seen in the example above, vo can be combined with it. Furthermore, vo can even be combined with the directional particle ma(a), a reflection of Proto-Oceanic *mai 'towards speaker or proximate deictic centre' that is the opposite of *uatu).

(48) ...toro oha vo ma- enei.
     ...must pass GOAL DIR- here
'...(you) must come over here.' (Vos 1.166)
4. Conclusion

The starting point of our investigation was the observation that Teop has prepositions that can be incorporated into the VC. In the search for an explanation for this phenomenon, we discovered that the incorporated prepositions originate from three different sources. While (1) the comitative preposition *me/mi* 'with', and the dative preposition *ki/ka* are genuine prepositions, (2) *kahi* 'from', *suku* 'because of' originate from serial verbs and (3) *vo* 'towards to' from a directional particle. But the process of preposition incorporation and the prepositionalisation of serial verbs and the directional particle led to their similar syntactic behaviour.

The comitative preposition *me/mi* and dative preposition *ki* seem to be drawn into the VC in analogy to the applicative marker *ni*. This is possible because the sequence of (*V ni NP*) looks the same as (*V PREP NP*) if the VC is not modified by any adverbs or particles following the positional slot of *ni*:

(49)  \[ Vahutate \ ni \ e \ bubuu. \]
      \[ \text{tell a story APP ART granny} \]
      \[ 'Tell a story about granny.' \]

(50)  \[ Hagi \ mi \ e \ bubuu. \]
      \[ \text{dance with ART granny} \]
      \[ 'Dance with granny.' \]

(51)  \[ Nahu \ kaukau \ ki \ e \ bubuu \]
      \[ \text{cook sweet potatoes DAT ART granny} \]
      \[ 'Cook sweet potatoes for granny.' \]

In contrast, the prepositions *kahi* 'from' and *suku* 'because' were serial verbs which were reinterpreted as prepositions as the sequence of (*V\_1 V\_2 NP*) looks very much the same as (*V PREP NP*) if the VC does not contain post-verbal particles.

(52)  \[ Kao \ kahi \ a \ inu. \]
      \[ \text{go go.away ART house} \]
      \[ 'Leave the house.' \]

The origin of third type of preposition, *vo* 'to, towards, in the way of', is assumed to have been a VC internal directional particle. This origin would
explain why vo cannot govern a NP, but only locative phrases (place names, local nouns, local deictics and prepositional phrases introduced by te). The prepositionalisation of vo is similar to that of kahi and suku. In the case that the VC is not modified by the adverb roho 'before' or marked by the imperfective aspect marker, vo holds the final position of a VC and thus could be reinterpreted as a as a preposition.

(53)  Nao vo Buin.
      go goal Buin
      'Go to Buin.'

This process is not unique to Teop, but found in other Oceanic languages. In Samoan, for instance, the Proto-Oceanic directional particle *mai is reflected as the directional particle mai 'hither' and the preposition mai 'from', and both of them can be found together in the same clause. Incidentally, the preposition mai differs from other prepositions in that it is combined with the locative preposition i in exactly the same way as vo is combined with te (Mosel & Hovdhaugen 1992: 147, 150).

Preposition incorporation:

\[(.. V ...)(NP) \rightarrow (.. V ...)(NP)\]

Prepositionalisation of a serial verb:

\[(.. V_{1} V_{2}...)(NP) \rightarrow (.. V...)(NP)\]

Prepositionalisation of a directional particle

\[(.. V ... DIR_{j} ...)(NP) \rightarrow (.. V...)(NP)\]

Finally, we discovered that the preposition ki has become an abstract case marker for first and second person pronominal arguments of the applicative marker ni and the incorporated preposition me/mi. The distinction between pronouns of speech act participants and third person plays a crucial role in Teop syntax. But why the first and second person pronouns require the dative marking when they are governed by an applicative cannot be explained for the time being.

A comparison of the applicative particle ni and the "prepositions" me/mi, ki/k-, and kahi, suku shows that they form a continuum with me/mi having the greatest similarity with ni and kahi, suku the least. The former directional particle vo differs from ni, me/mi, ki/k-, and kahi, suku in that it does not change the valence of the VC.
Table 6. Comparison of the applicative and the "prepositions"

<table>
<thead>
<tr>
<th></th>
<th>ni</th>
<th>me/mi</th>
<th>ki/-ki</th>
<th>kahi, suku</th>
<th>vo</th>
</tr>
</thead>
<tbody>
<tr>
<td>only inside VC</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>SG, 1INC, 1EXC, 1PL</td>
<td>+</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>pronominal objects</td>
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<td>requires DAT</td>
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<tr>
<td>occurs after bata</td>
<td>+</td>
<td>+</td>
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<td>-</td>
<td>+</td>
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<tr>
<td>changes valence when</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>-</td>
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<tr>
<td>incorporated</td>
<td></td>
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</tr>
</tbody>
</table>

5. Abbreviations in the glosses

1EXC 1st person exclusive plural
1EXC.OBJ 1st person exclusive plural object pronoun
1INC 1st person inclusive
1INC.OBJ 1st person inclusive object pronoun
1SG, 2SG, 3SG 1st, 2nd, 3rd person singular
1SG.OBJ 1st person singular object pronoun
2SG.OBJ 2nd person singular object pronoun
3SG.OBJ 3rd person singular object pronoun
ADV prefix deriving adverbs from verbs
APP applicative particle
ART basic article
CONJ conjunction
  *he* constrast two states of affairs,'but, while, when'
  *ne* same meaning as *re*, but used with 1SG only
  *re* expresses that the event is a consequence of the
  preceeding event
DAT preposition *ki/-ki* signifying the semantic role of recipi-
  ent, addressee, beneficiary,
DEM demonstrative
DIR directional particle
GOAL the preposition *vo* when used in the sense of 'towards
  to'
**IM** immediateness marker indicating that an event happened in the recent past is still relevant for the present or that an event will happen immediately.

**IMPF** imperfective aspect particle:

* (na)na 3SG REALIS

* nom in all TAM categories other than the REALIS and in 1SG, 2SG, 1EXC.PL, 2PL REALIS;

* (ra)ra 1INC.PL REALIS,

* (ro)ri 3PL REALIS

**NEG** negation

**NSPEC.ART** non-specific article

**O.ART** object article

**OBJ** object marker cross referencing objects of the 1st and 2nd persons and the 3rd person plural

* a, ama 1SG, 1EXC

* ama, ara 1INC

* a 2PL

* ri 3PL

**PL** plural

**PREP** the multifunctional preposition *te*

**REC** particle that is used with used with kinship terms and a few other terms denoting human relations and expresses that the NP refers to both sides of the relationship, e.g. 'mother and children'.

**REL** particle introducing relative clauses

**SIMUL** adverb expressing simultaneity and duration, 'at the same time, along'

**TAM** preverbal tense/aspect/mood particle

* na REALIS indicates past tense and when combined with the imperfective aspect present tense

* mene expresses that the speaker thinks something could happen that he/she or the protagonist of the story does not want to happen, 'might, lest, or else'

* paa indicates a change of the situation in the past or future
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