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.

(1) ----NP---------- ----------VC---------- -------NP------

A	*keusu*	*na*	*ani*	*nana*	*bona*	*pauna.*
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

(2) topic/ subject VC non-topical argument/ object

The topic position can also be held by an object, in which case the subject directly follows the VC, e.g.

(3)

A	***pauna***	*na*	*ani*	*nana*	*a*	*keusu.*
ART	banana	TAM	eat	IMPF:3SG	ART	rat

'The banana, the rat is eating (it).'

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:

(4) 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 subject *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 person 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.

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(6)	*Enaa*	*na*	*asun*	*va-mate*	*nom*
	1SG	TAM	hit	ADV-dead	IMPF:1SG
	a	*keusu*	***bona***	*vasu.*	
	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 number (see Mosel & Spriggs 1999a).

In accordance with the article selection rule, the third person object pronouns have two forms, the basic pronoun *e/ eve/ie* 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 persons, the secondary object is expressed by the basic pronoun of the third person (43).

The two cross-referencing markers mentioned above are the object marker 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 (V_1) and TAM markers, the verb complex can contain several lexical and grammatical elements which can lead to extrremely complex structures (Reinig 2000, 2004):

- an incorporated noun (N)
- serial verbs (V_2, V_3 ...)
- adverbs (ADV_1 ADV_2...)
- 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 ADV_1 V_1 V_2, V_3, ADV_2 NEG ADV_3 APP/PREP OBJ DIR IM ADV_4 IMPF

With the exception of a few adverbs (ADV_4), 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 prenuclear

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)	*Enaa*	*ne*	***toro***	***voosu***	***varavihi***	***bau***
	1SG	CONJ	must	return	hide	perhaps
	maa	*te-*	*a*	*bon.*		
	DIR	PREP-ART		night		

'Consequently 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)	*... o-*	*re*	***sa***	***paa***	***paku***	***va-***	***mataa***
	3SG/PL	CONJ	NEG	TAM	do	ADV-	good
	haa	*bona*	*kiu.*				
	NEG	ART	work				

'.. 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)	*A*	*kiu*	*bona*	***saka***	***mataa***	***haa***
	ART	work	DEM	NEG	good	NEG
	k-a		***nom***		*anaa.*	
	DAT-OBJ:1SG		IMPF:1SG		1SG.OBJ	

'This 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 *ki*/*k-* 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 imperfektive aspect marker agreeing with the subject.

(11) *A* *kiu* *bona* ***saka*** ***mataa*** ***haa-*** ***na***.
ART work DEM NEG good NEG IMPF:3SG
'The work was not good.'

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

	semantic role of primary object	semantic role of secondary object
navuhu 'hit'	patient (person, animal)	instrument (e.g. 'stick')
nahu 'cook'	patient (food)	instrument (e.g., 'saltwater')
hee 'give'	recipient (person)	theme (thing)
dao 'name'	recipient (person, thing)	theme (name)

(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 reversely, 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 transtive and ditransitive VCs, respectively. A third valence increasing construction is verb serialisation.

Table 2. Valence of verbs and verb complexes

Valence of V	kind of valence change	structure of VC	valence of VC
V_{tr}	detransitivisation by noun incorporation	(V_{tr} + N)	VC_{itr}
V_{itr}	valence increase by applicative	(V_{itr} + APP)	VC_{tr}
V_{itr}	valence increase by preposition incorporation	(V_{itr} + PREP)	VC_{tr}
V_{tr}	valence increase by preposition incorporation	(V_{tr} + PREP)	VC_{dtr}
V_{itr}	valence increase by verb serialisation	(V_{itr} + V_{tr})	VC_{tr}

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 *maa* *roho* *bona* *maa* *taba,* *grammar*
APP DIR before ART PL thing grammar
vai *te-* *o* *koara* *vaa* *English.*
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) *Enaa* *na* *kikisi* ***oha-*** *u* *nom*
1SG TAM strong pass OBJ:2SG IMPF.1SG
an.
2SG.OBJ
'I am stronger than you.' (Val 2 ed. 10)

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

3. Teop prepositions

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

Table 3. Prepositions

prep.	type	English translation	gloss
te	1	'of, in, at, on'	PREP
ki	2	'for, to'	DAT
me, mi	2	1. 'with (comitative), 2.'for' (purpose)	with, for
kahi	2	'from, off, away from, leaving'	from, leaving
suku	2	'because of'	because.of
vo	3	1. 'to, towards, in the direction of', 2. 'in the way of', like'	GOAL, like

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

type	complement	incorp.
1 *te*	NP with basic article, basic pronoun	no
2 *me/mi¸ ki/k-, kahi, suku*	NP with object article, object pronoun	yes
3 *vo*	locative	yes

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 prepostions, i.e. *ki/ k-, me/mi¸ kahi, suku* do not form a homogenous group; each of them shows some pecularities 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-Melnesian 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) *A* *amarao* *saka* *tavus* *haa*
ART guardian NEG come.from NEG
maa-na ***te-*** ***a*** ***vuaba*** ***te-an****?*
DIR-IMPF:3SG PREP- ART clan PREP-2SG
'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

location		goal		source	
tei, tii	be	*nao*	go (to)	*tavus*	originate, from
hio	sit	*nomaa*	come (to)	*arin*	pull s.th. out
obete	lie	*suguna*	arrive (at)	*gono*	get from
goroho	lie, sleep	*vaatii*	place (at, in, on)	*kapihi*	remove from
sun	stand	*vaasun*	make stand (at, in)		

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) *...nam* *na* *vaapeha* *mi-ri* *nom*
1EXC TAM be.the.same with-OBJ:3PL IMPF:1EXC
a *maa* *moon* *vaa* *Buka*
ART PL woman from Buka
'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*
1EXC 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)

(35) *Eove* *to* *beera* ***k-ama-*** *maa* *nom*
3SG REL be.leader DAT-OBJ:1EXC DIR IMPF.1EXC
anam.
1EXC.OBJ
'It is she who is our leader (lit. is the leader for us).' (Vos 1.69)

In addition to the constructions where the *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 *ni* and the comitative *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) *Enaa* *na* *tamaka* *ni* *nom* *e*.
1SG TAM sad APP IMPF 3SG
'I am sad about it.' (Purupuru 2.444)

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

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

(39) *a* *abana* *re-paa* *kahu-kahu* *uriha* *me*
ART men CONJ-TAM RED-carve club for
k-a *nom* *anaa*
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**
remove ART frog DEM ART dead from
bona hanana.
ART road
'Remove the dead frog from the road.' (TD *huriki*)

(41) *me paa rosin gunaha* ***kahi*** *bata*
and TAM flee go.down **from** SIMUL
maa bono vioga
hither O.ART betelnut
'and (he) fled (climbing) down from the betelnut palm.' Val 2 ed.19)

(42) *Tavus* ***suku*** *bata maa-ri*
appear because SIMUL DIR-OBJ:3PL
bona maa tobara upee te-ori
O.ART DIR boys *upee* PREP-3PL
'(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*
1SG TAM tell SIMUL DAT OBJ:2SG IMPF:1SG
an ie havee to kahi paku
2SG.OBJ 3SG.OBJ what REL FUT do ***bata me***
nom an ie.
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; *potee* 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 governmet
"You might take a letter to the national government." (Purupuru 2.73-74)

(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 **ua(tu)* '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 **ua(tu)*.

(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.*
tell a story APP ART granny
'Tell a story about granny.'

(50) *Hagi* ***mi*** *e* *bubuu.*
dance with ART granny
'Dance with granny.'

(51) *Nahu* *kaukau* ***ki*** *e* *bubuu*
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.*
go go.away ART house
'Leave the house.'

The origin of third type of preposition, *vo* 'to, towards, in the way of', is asumed 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:

$(..\ V\ ...)_{VC}\ ...\ (PREP_j\ NP) \quad \rightarrow \quad (...\ V\ ...\ PREP_j\ ...)_{VC}\ (NP)$

Prepositionalisation of a serial verb:
$(..\ V_1\ V_{2j}...)_{VC}\ (NP) \quad \rightarrow \quad (..\ V\ ...)_{VC}\ \ (PREP_j\ NP)$
Prepositionalisation of a directional particle
$(...\ V\ ...\ DIR_j\ ...)_{VC}\ PP \quad \rightarrow \quad (...V...)\ ...\ (PREP_j\ PP)$

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"*

	ni	*me/mi*	*ki/k-*	*kahi, suku*	*vo*
only inside VC	+	-	-	-	-
1SG, 2SG, 1INC, 1 EXC, 2PL pronominal objects require DAT preposition	+	+	-	-	-
occurs after *bata*	+	+	+	-	+
changes valence when incorporated	+	+	+	+	-

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/k-* signifying the semantic role of recipient, addresee, 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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