

Expressions of directed caused accompanied motion in Komnzo

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This chapter describes and analyses the expression of directed caused accompanied motion (directed CAM) in Komnzo, a language of Southern New Guinea. The chapter focusses on the interaction between lexical semantics and verb morphology. It shows that the expression of CAM events revolves around a handful of very frequent lexical items (CARRY, FETCH, RETURN verbs), which can be placed in different morphological templates. Morphological fluidity provides a productive mechanism to derive causative alternations of intransitive motion verbs, i.e. an intransitive RETURN verb can be used to express 'return something'. The chapter adopts a corpus linguistic approach to the phenomenon of CAM events by providing a fine-grained frequency analysis of the most important verb lexemes based on the Komnzo text corpus. Additionally, the chapter describes how the system of adverbial demonstratives and case markers contribute to expression of CAM events.

Keywords: Papuan languages, Yam languages, verb morphology, lexical semantics, valency, causation, middle voice, alignment

1. Introduction

This chapter focusses on Komnzo [ISO: 639-3: tci; Glottocode: komn1238], a language of the Yam family in the south west of Papua New Guinea. Komnzo is spoken by approximately 200–250 speakers in the village of Rouku and Morehead Station.

There are different levels of linguistic structure involved in the expression of the four definitional components of CAM events: directedness, accompaniment, causation and motion. I refer the reader to the introductory chapter of this volume for a detailed definition of these. Directedness is encoded morphologically on the verb by two directional affixes: a venitive prefix ('hither') or an andative suffix ('thither'). Additionally, directedness can be expressed by the flagging of noun phrases or by the use of deictics and demonstratives. Accompaniment is entailed in the meaning

of the verb lexemes or implied by the context. Causation is expressed by a causative alternation, which is encoded by placing verb stems in certain morphological templates. For example, an intransitive RETURN verb can be used to mean ‘bring back’ by changing its template. The usage of the term “template” will be explained in § 3.2. The chapter places a focus on this aspect of Komnzo verb morphology. Finally, motion is expressed lexically by motion verbs or again by the directional affixes on verbs.

The chapter is structured in the following way: Section 2 provides information on the text corpus and the dataset used in this article. Section 3 introduces Komnzo verb morphology with a focus on distributed exponence (§ 3.1) and morphological templates (§ 3.2). The following two sections provide an overview of case marking (§ 3.3) and the deictic system (§ 3.4). The main part of the article in Section 4 focusses on the description of that part of the verb lexicon that is used to express CAM events. The section is divided by semantic criteria into basic verbs (§ 4.1), accompaniment verbs (§ 4.2), path of motion verbs (§ 4.3), manner of motion verbs (§ 4.4), and stative verbs (§ 4.5). In Section 4.6, I sum up the findings that relate to the causation component and template choice. Section 5 looks at longer stretches of discourse and the distribution of components of CAM events over several clauses. Section 6 draws together the observed patterns and provides a conclusion.

2. The text corpus

The data discussed in this chapter is a subset of the Komnzo text corpus. The subset comprises those recording sessions that have been fully inter-linearized and glossed. The texts were collected during the author’s PhD project between 2010 and 2015, which resulted in a grammar of Komnzo (Döhler, 2018).

The subset of the corpus used here comprises more than 7 hours of natural speech of various text genres, including both natural and stimuli-based narratives and conversations (see Table 1). All corpus examples below are marked with a source code in the following format: tciYYYYMMDD SSS ##. The first part identifies the transcription file. Each item in the archive starts with the ISO 639–3 code for Komnzo (tci). What follows is the date of the recording (YYYYMMDD). The second part identifies the annotation within the transcription file. Transcription tiers are sorted by speaker (SSS) and the intonation units on each tier are numbered (##).

The corpus can be accessed in two ways. The complete collection is archived with TLA, Nijmegen (Döhler, 2010–2015). The corpus of transcribed texts has been archived at Zenodo (Döhler, 2020). The latter contains all transcription files in ELAN format (.eaf) in a single .zip file. The associated audio and video files are accessible in separate session nodes at both locations. The title of a session node follows the formatting of the source code as described above. The dataset discussed

here is also available as a zipped file under: <https://doi.org/10.5281/zenodo.3695989>. The file contains the transcription files and all extracted tokens in .csv format of the lexemes discussed here.

Table 1. Database

Text type	hh:mm
Conversations	00:09
Conversational tasks	01:26
Narratives	04:56
Procedural texts	00:50
Total	07:21

3. Grammatical background

This section introduces the relevant grammatical background of Komnzo. I describe the principle of distributed exponence in § 3.1, which is important for the practical glossing of examples in this article. In § 3.2, follows a description of verb templates, which are important for the causation component of directed CAM events. In § 3.4, I describe the deictic system and case markers, which are important for the directedness component.

3.1 Distributed exponence

Like other languages of the Yam family, Komnzo has complex verb morphology. Verbs express person, number and gender of up to two participants, 18 TAM categories, valency, directionality and deictic status. Complexity lies not only in the number of grammatical categories that can be expressed morphologically in verb, but also in the way how these are encoded. The term “distributed exponence”, which surfaced in the recent literature on multiple exponence (Caballero & Harris, 2012), is useful for capturing this complexity. Carroll (2016) gives a precise definition of distributed exponence as “the phenomenon in which morphosyntactic and morphosemantic properties are marked non-redundantly at multiple inflectional sites” (p. 268). In Komnzo verb morphology, this plays out as under-specification of individual morphs. Consider Table 2 below, in which the verb *thoraksi* ‘appear’ is inflected for different TAM categories.¹

1. Komnzo verb lexemes have two stems, which are sensitive to aspect. The formal relationship between the two stems ranges from suffixation to consonant mutation to full suppletion. In this article, I will list the two stems in brackets after the infinitive in this way: *thoraksi* (*thor-*|*thorak-*). Note that *-si* is the nominalizing suffix (NMLZ).

Table 2. *thoraksi* ‘appear’ in a 3sg.masc frame

TAM category	Inflected form
non-past	<i>y-thorak-wr</i>
recent-past imperfective	<i>su-thorak-wr</i>
recent-past durative	<i>y-thorak-wr-m</i>
recent-past perfective	<i>sa-thor</i>
past imperfective	<i>y-thorak-wr-a</i>
past durative	<i>su-thorak-wr-m</i>
past perfective	<i>sa-thor-a</i>
iterative	<i>su-thor</i>

It becomes clear from the table that the inflectional sites (the prefix, the verb stem, and the suffixes) contribute some information without encoding a particular TAM value. For example, the prefix *y-* occurs in non-past, recent-past and past tense, both in imperfective and durative aspect. Likewise, the verb stem *thor* is involved in expressing perfective aspect, but also the iterative. In other words, the morphs in each inflectional site are underspecified as to their grammatical meaning, in this case the TAM category. Under-specification of this type is also found in other grammatical categories, such as number and valency.

Distributed exponence prompts us to take the inflected verb, rather than the morpheme, as the level of analysis. As a practical consequence, I gloss verbs in a word-in-paradigm style (Matthews, 1974), as in (1) and (2) below. Hence, I do not provide a morpheme segmentation of verb in the item-and-arrangement style. Instead only the verb stem is separated from the inflectional affixes by slanted lines on the morpheme tier. In the gloss tier, the inflected verb form is placed in its paradigm by listing information in the following order: argument structure, TAM, directionality, and (following a forward slash) lexeme translation. Additionally, I put the entire verb gloss in square brackets followed by an abbreviation of the respective verb template in subscript. The copula in (1) occurs in the prefixing template (PREF), while the CARRY verb in (2) occurs in the transitive template (TRANS). The role of verb templates will be addressed in the next section.

- (1) *kabe y\thorak/wr*
 man [3SG.MASC:NPST:IPFV/appear]_{PREF}
 ‘The man appears.’
- (2) *kabe=f nge wn\zä/nzr*
 man=ERG.SG child [2|3SG>3SG.FEM:NPST:IPFV:VENT/carry]_{TRANS}
 ‘The man carries the girl.’

3.2 Verb templates

Inflected verbs in Komnzo can be classified as prefixing, middle, and ambifixing depending on whether the prefix, the suffix or both are employed. I use the term “verb template” for the arrangement of morphological slots. Note that even though I use the term “middle” here as a label for the template, the situation types expressed by this template fit into the semantic model of middles developed by Kemmer (1993). Hence, we can say that a particular lexeme “occurs in a middle template” or that it “occurs in a prefixing template”. Templates are lexically determined for some verbs, which means that we can speak of “a middle verb” or of “a prefixing verb”. However, for the majority of verbs, the system of templates is somewhat flexible. That is, a verb stem can occur in different templates. Thus, we can describe a particular lexeme by stating that “it occurs in the middle template and the ambifixing template, but not in the prefixing template”.

The morphological slots involved in the definition of templates are the following: (i) the undergoer prefix, (ii) the diathetic prefix, and (iii) the actor suffix. The undergoer prefix can index an argument, or it can be filled with the middle prefix, which is person/number-invariant. The diathetic prefix slot can be empty or be filled by the diathetic prefix *a-* (di). The neutral label “diathetic” captures that for some verbs its function is to increase valency, whereas for other verbs it decreases valency. In other words, the diathetic prefix is underspecified. Finally, the actor suffix can be either absent or present. Table 3 provides a schematic overview of the possible templates. The column for the undergoer prefix lists the morph *y-* for 3SG.MASC, with the exception of the middle template, where the morph is *ŋ-*. The column actor suffix lists *-th* for 2|3NSG.

Table 3. Verb templates

Template	Undergoer prefix	Diathetic prefix	Verb stem	Actor suffix
prefixing	✓(<i>y-</i>)	–	✓	–
prefixing (indirect object)	✓(<i>y-</i>)	✓(<i>a-</i>)	✓	–
middle ambifixing	✓(<i>ŋ-</i>)	✓(<i>a-</i>)	✓	✓(<i>-th</i>)
transitive ambifixing	✓(<i>y-</i>)	–	✓	✓(<i>-th</i>)
ditransitive ambifixing	✓(<i>y-</i>)	✓(<i>a-</i>)	✓	✓(<i>-th</i>)

Note that there are more than the three templates mentioned above, because the prefixing and the ambifixing template can be subdivided further based on the presence versus absence of the diathetic prefix. Hence, there is a prefixing template and an indirect object prefixing template and there is a transitive ambifixing template and a ditransitive ambifixing template. I give more concrete examples below in (3a–3e).

As mentioned above, the system of verb templates is lexically determined for some verbs, while it is fluid for other verbs. There are only a handful of lexemes, mostly positional verbs, which can enter into all five templates. Below, I present the verb *migsi* (*mig-*|*mir-*) ‘hang’ in all five templates to show how templates impact on argument structure and, generally, on the meaning of the verb. The examples in (3) are all elicited and appear here in a reduced gloss, which ignores all TAM information. The Examples (3a–3e) correspond to the five templates as they are listed in Table 3 above.

- (3) a. *y-mithgr*
3SG.MASC-hang
‘He hangs.’
- b. *y-a-mithgr*
3SG.MASC-DI-hang
‘Something of his (or for him) hangs.’
- c. *η-a-mig-wr*
M-DI-hang-2|3SG
‘It hangs itself up.’
- d. *y-mig-wr*
3SG.MASC-hang-2|3SG
‘S/He hangs him up.’
- e. *y-a-mig-wr*
3SG.MASC-DI-hang-2|3SG
‘S/He hangs up something of his (or for him).’

The prefixing template (3a–3b) is used for intransitive event types that are stative. In addition to 41 positional verbs (e.g., HANG, LEAN), which use this template as a stative alternation, there is only a handful of verbs in the Komnzo lexicon that employ the prefixing template (e.g., REST, SUFFER, SLEEP, BE). Most intransitives are expressed in the middle ambifixing template (3c), which is used for dynamic events (e.g., RUN, DANCE, LAUGH). Another way to look at it would be to describe the middle ambifixing template as being multifunctional. It expresses not only intransitive, impersonal, reflexive and reciprocal, but also passive event types. In terms of argument structure, the interpretation of an inflected verb in the middle template results from an interaction of lexical semantics as well as case marking on the noun phrases (Döhler, 2018, p. 187). Example (3d) shows the transitive ambifixing template, which is the “major biactant construction” (Lazard, 2002) in Komnzo. As we will see, the transitive template² is the main strategy to derive

2. For the remainder of the article, I will omit the word “ambifixing” for better readability, and because it is important only for keeping a distinction between ambifixing and prefixing. The latter

causative alternations from intransitive motion verbs. In Example (3e), the diathetic prefix has been added to the verb, which results in an increase in valency. This is the way to express ditransitives in Komnzo, and one can argue that all ditransitives are derived in the language (Döhler, 2018, p. 206).

The system of templates is relevant for the expression of CAM events, especially for the causation component. In Example (4) the speaker describes the slash-and-burn method of agriculture that is practised in the region, whereby gardens are shifted to a new location from year to year. In (4a), the verb *brigsi* (*brig-*|*brim-*) ‘return’ is used in the middle template as a dynamic intransitive. In (4b), *brigsi* is used in a transitive template, which introduces a causer to the argument structure. As a consequence, (4b) expresses a directed CAM event.

- (4) a. *fthmäsi za\bth/e* *bä we*
 meanwhile [1PL>3SG.FEM:RPST:PFV/finish]_{TRANS} MED also
kwan\brig/wre *we z=n\rä/* *zena*
 [1PL:RPST:IPFV:VENT/return]_{MID} also PROX=[1PL:NPST:IPFV/be]_{PREF} now
 ‘Meanwhile we finished (the soil) and we returned now ...’
- b. *zane ysakwr=en zf za\thkäfle*
 PROX season=LOC IMM [1PL>3SG.FEM:RPST:PFV/start]_{TRANS}
z=n\rä/ *narake*
 PROX=[3SG.FEM:NPST:IPFV/be]_{PREF} garden
thun\brig/wre *zena*
 [1PL>2|3PL:RPST:IPFV:VENT/return]_{TRANS} now
 ... this year we started (making gardens) right here. We brought back the
 gardens now? (tci20120922-08 DAK 80–81)

As mentioned above, template choice is fluid for some lexemes. The verb *brigsi* occurs 171 times in the corpus. Only 38 of the tokens are in the transitive template, while the remaining 133 tokens are in the middle template. Thus, we can describe *brigsi* as a middle verb. Its use in the transitive template is best described as a causative alternation. The point here is that the alternation adds the causation component required for the expression of CAM events. Note that the verb is marked with a directional in (4b), which adds the directedness component (see § 3.4 for a description of the directional affixes). Compare this with *ynaksi* (*nak-*|*zin-*) ‘put down’, which occurs 79 times in the corpus. Here the frequency of template choice is reversed. Only 4 tokens are in the middle template, while the remaining 75 are in the transitive template. Thus, we can describe *ynaksi* as a transitive verb and its use in the middle template is an alternation, which may derive a reflexive, reciprocal,

does not play a role in the expression of CAM events. Therefore, I will simply use “middle|transitive|ditransitive template”, instead of “middle|transitive|ditransitive ambifixing template”.

impersonal or pseudo-passive meaning. For the majority of verbs in Komnzo, labels, such as ‘transitive verb’ or ‘intransitive verb’, are a matter of frequency of template choice (cf. Table 6 in § 4.6).

For some verb stems, template choice alters their meaning to such a degree, that they are best analysed as separate lexemes. One such example is *rbänzsi* (*rbänz-|rbs-*), which has the meaning ‘untie’ in a transitive template, but ‘explain’ in a ditransitive template (lit. ‘to untie for sb.’). Another example is *karksi* (*kark|kar-*), which has the meaning ‘pull’ in a middle template, but ‘take away from sb.’ in a transitive template.

3.3 Case marking

The complex morphological verb system is supplemented by the flagging of noun phrases with case enclitics, which is organized in an ergative-absolutive system. In addition to the three core cases (ergative, absolutive and dative), there are 14 semantic cases. I refer the reader to the Komnzo grammar for a more detailed description of the case system and its interaction with verb morphology (Döhler, 2018, p. 136). This section only addresses case markers that are used to express goal and source arguments in directed CAM events. The relevant cases are the three local cases, the purposive case and the characteristic case. Table 4 shows the case forms for the locative, allative and ablative. Note that there are alternate morphs for animate referents, which encode a number distinction (singular vs. non-singular), that is absent for inanimate referents.

Table 4. Local cases

	Inanimate	Animate.SG	Animate.NSG
locative	= <i>en</i>	= <i>dben</i>	= <i>me=dben</i>
ablative	= <i>fa</i>	= <i>dba</i>	= <i>me=dba</i>
allative	= <i>fo</i>	= <i>dbo</i>	= <i>me=dbo</i>

If the goal argument is expressed overtly, it is usually marked by the locative or the allative case. Similarly, the source argument is marked by the ablative case. In some instances in the corpus, it is only the case marking that adds the directedness component, as can be seen in (5) and (6). As we will see in Section 3.4, usually it is the directional affixes on the verb, or the demonstratives that add directedness.

- (5) *nni=fo srä\thor/th* *nni=n kwa*
 fire=all [2]3PL>3SG.MASC:IRR:PFV/carry]_{TRANS} fire=loc FUT
y\frä/nzrth *nima*
 [2]3PL>3SG.MASC:NPST:IPFV/singe]_{TRANS} like.this
b=\yé/
 MED=[3SG.MASC:NPST:IPFV/be]_{PREF}
 ‘They bring it to the fire. They will heat it over the fire like over there.’
 (tci20120824 KAA 107–109)
- (6) *thraya=fa thä\thor/ath* ... *krü*
 Daraia=ABL [2]3PL>2]3PL:PST:PFV/carry]_{TRANS} (.) Kérü
 ‘They brought them from Daraia to ... Kérü.’ (tci20131013-02 ABB 164)

Provided there is enough context, goal or source arguments can be left unmarked. This occurs especially if one of adverbial demonstratives is present, as in (7).

- (7) *y\zä/nzre* *zbo mnz*
 [1PL>3SG.MASC:NPST:IPFV/carry]_{TRANS} PROX:ALL house
 ‘We bring it here to the house.’ (tci20120824 KAA 20)

Goal arguments can also be expressed by noun phrases marked by the purposive case =*r*. In Example (8), the speaker describes how her mother used to bring her out of the village ‘for school’, i.e., ‘to the school place’. Source arguments can also be expressed by the characteristic case =*ma*. In Example (9), the speaker talks about a custom, whereby soil is taken from a person’s grave and sprinkled in one’s own yam garden. Note that even though the purposive and the characteristic case can encode goal and source arguments in directed CAM events, there are no corpus examples in which it is those case markers alone that add the directedness component. Instead, there is usually an adverbial demonstrative like *foba* in (8) or *bobo* in (9), or one of the directional affixes on the verb, as in (8).

- (8) *foba ane zun\mätra/th* *nima skul=r*
 DIST:ABL DEM [2]3DU>1SG:RPST:PFV:VENT/exit]_{TRANS} like.this school=PURP
 ‘From there (from the village), they brought me out like this, for school.’
 (tci20150919-05 LNA 241)
- (9) *nafane bad fokam=ma zfvzä/nzrmth*
 3NSG.POSS ground(ABS) grave=CHAR [2]3PL>3SG.FEM:PST:DUR/carry]_{TRANS}
bobo o saf
 MED:ALL or Safs
 ‘They were taking his soil, from the grave, to there or to Safs.’
 (tci20120805-01 ABB 842–843)

3.4 The deictic system

We have seen a part of the deictic system in the previous section. This section focusses on the system of demonstratives, the directional affixes and the presentational construction. The deictic system plays an important role in the expression of CAM events, especially in the expression of goal, source and directedness. What is striking about Komnzo is the abundance of deictic markers in discourse. It is not uncommon to have several instances of deictic marking in an utterance, as in (10), where the speaker talks about his ancestor. The example shows the use of the local cases (*Yasi=fa* ‘from Yasi’), adverbial demonstratives (*foba* ‘from there’), demonstrative pronouns (*zane* ‘this’) and verbal proclitics (*z=n\rä/* ‘we are here’). Note that the ablative is used in a temporal sense in (10).

- (10) *yasi=fa foba fof ni zane ze\wär/ake zena*
 Yasi=ABL DIST:ABL EMPH INSG DEM:PROX [1PL:PST:PFV/crack]_{MID} now
z=n\rä/
 PROX=[1PL:NPST:IPFV/be]_{PRE}
 ‘From Yasi (i.e., from that time), we originated and therefore we are here today.’
 (tci20111107-01 MAK 86)

Table 5 shows the system of demonstratives, which make a threefold division of distance (proximal, medial, distal) and add one dimension that is not related to space (ignorative). The latter is used to form spatial wh-questions, for example *mä* ‘where’ or *moba* ‘from where’.

Table 5. Deictic system

	Pronoun	Adverb	Adverb.ALL	Adverb.ABL	Clitic
proximal	<i>zane</i>	<i>zä</i>	<i>zbo</i>	<i>zba</i>	<i>z=</i>
medial	(<i>bäne</i>)*	<i>bä</i>	<i>bobo</i>	<i>boba</i>	<i>b=</i>
distal	(<i>ane</i>)	<i>fä</i>	<i>fobo</i>	<i>foba</i>	<i>f=</i>
ignorative	<i>mane</i>	<i>mä</i>	<i>mobo</i>	<i>moba</i>	<i>m=</i>

* Two of the demonstrative pronouns are shown in brackets in Table 5, because they have lost their spatial meaning: *ane* is used anaphorically, while *bäne* is used as a recognitional (‘watchamacallit’).

The deictic proclitics shown in Table 5 can be attached to any verb inflection. Most often it is found attached to the copula, as in (10) above. If this occurs at the end of a clause, often following the main verb, this serves a presentational function with a deictic function. This construction is relevant for the expression of directed CAM events because the presentational construction may express the goal argument, or add directedness to the event. This can be seen below in Example (11), where the speaker talks about how her mother used to carry her to school. The CARRY verb

in (11) does not include directional marking and it is only the copula that adds directedness by hosting the medial proclitic in the presentational construction.

- (11) *nä kayé toku=me ku\zä/nzrm e*
 INDF one.day.away neck=INS [SG>1SG:PST:DUR/carry]_{TRANS} until
b=wo\rä/ ... skul
 MED=[1SG:NPST:IPFV/be]_{PREF} (.) school
 ‘On some days she was carrying me there ... to school.’ (lit. until I am there at school)
 (tci20150919-05 LNA 246–247)

Komnzo verbs can be inflected for directionality. Verbs can be unmarked, in which case they are neutral, or they may take a venitive (‘hither’) or an andative (‘thither’). The two directional values are marked in different slots on the verb. The venitive is encoded by the prefix *n-*, while the andative is encoded by the suffix *-o*. In Example (12), the speaker talks about the exchange of food during a feast. The two tokens of *zrin* (*zä-|thor-*) ‘carry’ differ in the indexed agent (‘they’ vs. ‘we’) and also in their directional marking (‘thither’ vs. ‘hither’). In the first token *sräthoroth* the andative *-o* suffix follows the stem of the verb (*thor*), whereas in the second token *sränthore* the venitive *n-* prefix precedes the stem. Note that the source arguments in (12) are marked by flagging the possessive pronouns with the characteristic case.

- (12) *we nafa nzenme=ma srä\thor/oth*
 also 3NSG.ERG 1NSG.POSS=CHAR [2|3PL>3SG.MASC:IRR:PFV:AND/carry]_{TRANS}
ni nafaneme=ma fof srän\thor/e
 1NSG 3NSG.POSS=CHAR EMPH [1PL>3SG.MASC:IRR:PFV:VENT/carry]_{TRANS}
 ‘They would take from ours and we would take from theirs.’
 (tci20120929-02 SIK 97–98)

Directional marking occurs more often with motion verbs, including those used to express CAM events. However, sometimes it is the directional affix that forces a dynamic meaning on an otherwise stative verb. This can be seen in (13) below, where the stative verb *fathasi* (*fath-|faf-*) ‘hold’ is used to mean ‘bring’, because it is marked with a venitive. In the example, the speaker describes how the apical ancestor of his clan brought a magic rain stone.

- (13) *wm mane \yé/*
 stone which [3SG.MASC:NPST:IPFV/be]_{PREF}
yn\fath/wa fof no nzigfu
 [SG>3SG.MASC:PST:IPFV:VENT/hold]_{TRANS} EMPH rain magic.stone
 ‘As for the stone, he brought the magic rain stone here.’
 (tci20131013-01 ABB 244–245)

4. CAM events

CAM events in Komnzo are not expressed by a dedicated construction, but by lexemes in a transitive template, or sometimes in a ditransitive template. That being said, there are some general characteristics found more commonly in CAM events, such as the use of deictic and directional marking. In this section, I will go through a description of the most common lexemes by semantic criteria.

The section is divided into basic CAM events (§ 4.1), accompaniment CAM events (§ 4.2), CAM events with a specific path of motion (§ 4.3) and CAM events with a specific manner of motion (§ 4.4). I include frequency analyses from the text corpus on template choice. These are summarized in Table 6 in § 4.6.

The reader should keep in mind that statements on the frequency of template choice of a particular lexeme do not satisfy the defining components of directed CAM events. In other words, the fact that a certain percentage of tokens of a given lexeme occurs in the transitive template may mean that those tokens express a caused motion event (CM), but the statement is agnostic as to the directedness component and also to the accompaniment component. Therefore, I offer a fine-grained frequency analysis of the most important verbs in the conclusion (§ 6).

4.1 Basic expressions of directed CAM events

There is no general TAKE or BRING verb in Komnzo, but there are four verbs with a general meaning that are found in directed CAM events: *zrin*³ (*zä-|thor-*) ‘carry’, *miyanzsi* (*miya-|miyar-*) ‘fetch’, *mezsi* (*mez-|mes-*) ‘fetch’ and *zknsi* (*zkn-*) ‘move’. What unites these four verbs is the fact that they cover a general meaning of caused accompanied motion, and that they occur almost exclusively in the transitive template. Of these four verbs, *zknsi* ‘move’ is the most general. However, for *zknsi* the accompaniment component is often only implied by context. *Zrin* entails some information about the manner, namely to move something by carrying it. The other two – *miyanzsi* and *mezsi* – are synonyms, and they are specific with respect to the theme argument they can take. All occurrences in the corpus and also in elicitation show that they can only occur with animate themes, i.e. they mean ‘bring/fetch someone’.

The most frequent of these is *zrin*. In the corpus *zrin* occurs almost exclusively in the transitive template (93 tokens), and only four times in the ditransitive template. See Table 6 in § 4.6 for comparison. In Example (14), the speaker talks about poison root fishing and how the big fish are carried back to the house, while the small fish are eaten right away. The goal (‘house’) is marked by the allative case.

3. Note that unlike most verbs, *zrin* it does not form a nominalization by adding the suffix *-si*. Instead the word *zrin* is used, which is polysemous and can mean ‘burden’, ‘heavy’ or ‘to carry’.

- (14) *nä ane kafar we mane e\rä/* *kwa*
 INDF DEM big also which [2|3PL:NPST:IPFV/be]_{PREF} FUT
e\zä/nzre *mnz=fo*
 [1PL>2|3PL:NPST:IPFV/carry]_{TRANS} house=ALL
 ‘As for some of the big ones, we will bring them to the house.’
 (tci20110813 DAK 56)

Zrin can also encode the beneficiary, if it is placed in the ditransitive template, as in Example (15). The example comes from the same text as the previous example. In this template, only the beneficiary (‘for them’) is indexed on the verb. The theme argument (‘fish’) is implied by the context.

- (15) *kwa ä\zä/nzrth* *nars fobo*
 FUT [2|3PL>2|3PL:IO:NPST:IPFV/carry]_{DITRANS} river DIST:ALL
 ‘They will carry (the fish) for them to the river there.’ (tci20110813 DAS 44)

Zrin is often marked by one of the directional affixes. In Example (16), the speaker explains how she held a feast for her clan, when her first child was born, and how she gave a large amount of yam tubers to her family. The reason for the gift (‘as a payment’) is flagged with the characteristic case =*ma*.

- (16) *nge faw=ma* ... *nafa ane*
 child payment=CHAR (.) 3NSG.ERG DEM
e\zä/nzrakoth
 [PL>2|3PL:PST:IPFV:AND/carry]_{TRANS}
 ‘As a payment for the child ... they carried them (i.e. the yam tubers) off.’
 (tci20130823-08 WAM 45)

The meaning of *zrin* can be further specified as to its manner. A nominal element, usually flagged with the instrumental case =*me*, can be added: *zaza=me* ‘with a carrying stick’, *nzaranzara=me* ‘with a stretcher’. We saw one such example above in (11), where the nominal *toku* ‘neck’ was added. However, *toku* is not a body part, but only ever occurs in the context of carrying. Through the same strategy, one can extend the meaning of *zrin* metaphorically, for example by adding *yawiyawi* ‘money’ to express the notion of ‘buy/sell’ (lit. ‘carry with money’). In (17), *waniwani* ‘shadow, image’ is added to express the notion of ‘make a video recording’ (lit. ‘carry with images’).

- (17) *Ane rokar kwa bäne=me* ... *waniwani=me*
 DEM thing FUT RECOG=INS (.) picture=INS
thra\thor/
 [2|3SG>2|3PL:IRR:PFV/carry]_{TRANS}
 ‘He will take whatchamacallit ... pictures of these things.’
 (tci200905-02 MKW 85)

The two FETCH verbs, *miyanzsi* and *mezsi*, can be translated as ‘fetch someone’, ‘pick up s.o.’ or ‘bring s.o.’. They always occur in the transitive template. Example (18) comes from a story about a man who fell from a coconut palm. Another man finds him in a bad state and rushes to the village to alert and fetch the villagers. Note that the meaning of ‘come to fetch you’ results from the venitive marker on *miyanzsi*.

- (18) *b=ya\nor/* *’awe! bä*
 MED=[3SG.MASC:NPST:IPFV/shout]_{PREF} come 2.ABS
en\miya/nzé *rouku kar zrin=r!’*
 [1SG>2|3PL:NPST:IPFV:VENT/fetch]_{TRANS} Rouku village carry=PURP
 ‘He shouted: “Come here! I come to fetch you to carry him, Rouku people!”’
 (tci20120904-01 MAB 106)

The verb with the most general meaning is *zknsi* ‘move’. There are only 8 tokens in the corpus. One token occurs in the middle template (‘move self’) and, thus, does not express a CAM event. The remaining 7 tokens occurs in the transitive template and express caused motion events, but most of them lack the accompaniment component, as can be seen in (19). This example is taken from a stimulus task, in which the participants arrange picture cards. It follows that the agent does not move along with the theme. There is one example in the corpus, where it is clear from the context that the agent moves along with the theme. In (20), the speaker talks about moving the stem of a sago palm, which is too heavy for the agent not to move along with it. It follows that accompaniment is not part of the meaning of *zknsi*, which results from its very broad meaning ‘move’.

- (19) *zane tonze thän\zkn/!*
 DEM:PROX close [2SG>2|3PL:IMP:PFV:VENT/move]_{TRANS}
 ‘Move these (pictures) closer!’ (tci20111004 RMA 212)
- (20) *zizi z kwot srä\zkn/e bobo*
 afternoon ALR properly [1PL>3SG.MASC:IRR:PFV/move]_{TRANS} MED:ALL
 ‘In the afternoon, we will properly carry (the sago stem) over there.’
 (tci20120929-02 SIK 61)

4.2 Strategies for expressing accompaniment in CAM events

The verb *yaroksi* (*roko-|rokofth-*) ‘escort, guide’ is used to express accompaniment and causation explicitly. Even though *yaroksi* only occurs in a ditransitive template, the dependent noun phrase is never flagged with a dative, but always with an absolutive. Thus, *yaroksi* belongs to a group of deponent verbs in the sense of Baerman et al. (2006). For these verbs template choice (ditransitive) does not match the argument structure (transitive). There are no corpus examples of *yaroksi* that

include a noun phrase for the theme argument. I refer the reader to the Komnzo grammar for a more detailed description of deponent verbs (Döhler, 2018, p. 187). Example (21) below shows one example of *yaroksi*, in which the speaker describes an upcoming wedding and how the couple will be escorted to the village square.

- (21) *kwa än\roko/nth* *kwot bobomr*
 FUT [2|3PL>2|3DU:NPST:IPFV:VENT/escort]_{DITRANS} properly until
thran\thayf/th *faj zn=fo*
 [2|3PL>2|3DU:IRR:PFV:VENT/bring.out]_{TRANS} clearing place=ALL
 ‘They will escort them properly until they bring them to the village square.’
 (tci20110817-02 ABB 34)

There are 12 tokens of *yaroksi* in the corpus, all of them are in the ditransitive template. Six of them are marked with a venitive directional, while the remaining ones are neutral.

The inclusory construction is another strategy to express accompaniment, even though only partially relevant for the expression of CAM events. The inclusory construction involves the associative case (on the subset) and the verb inflection (expressing the total set). For a full description of the construction, I refer the reader to the Komnzo grammar (Döhler, 2018, p. 276). The inclusory construction can be used for many situation types and its function does not include causation. However, especially with motion verbs the causation component is often implied, as in (22), where the speaker talks about how her mother used to bring her to the village school. In this context, the sentence could equally be translated as ‘she brought me here’.

- (22) *zane ama=r nan\yan/a zbo*
 DEM:PROX mother=ASSOC:DU [1DU:PST:IPFV:VENT/come]_{PREF} DEM:ALL
skul znsä zfrä/rm zbo
 school work [3SG.FEM:PST:DUR/be]_{PREF} DEM:ALL
 ‘I came here with this mother. The school work was here.’
 (tci20130911-03 MBR 3)

4.3 Path of motion specific verbs in CAM events

The Komnzo lexicon includes a number of verb lexemes, which specify the path of motion. These make up the largest group of lexemes with meanings that range from general motion, e.g., *brigsi* (*brig-*|*brim-*) ‘return’, to very specific scenarios, e.g., *frezsi* (*frez-*|*fref-*) ‘come up from river’. Based on the relative frequency of middle versus transitive template, these verbs can be divided into three groups.

The first group is made up of those verbs, which occur almost always in the middle template. One example is *sogsi* (*sog-|söbäth-*) ‘ascend, climb’ with 32 tokens in the corpus. 24 tokens are in the middle template with the meaning ‘climb’. There are only 8 occurrences in the transitive template with the meaning ‘bring up, lift up, carry up’. Examples (23) and (24) show these two patterns. Note that the accompaniment component is entailed in the verb *sogsi*. There are several other verbs in Komnzo where accompaniment is left unexpressed only to be resolved by the context. We will turn to those verbs below.

- (23) *neba=me kwan\sog/wrm nabi=n*
 opposite=INS [SG:PST:DUR:VENT/ascend]_{MID} bamboo=LOC
 ‘With the other (hand) he climbed up on the bamboo.’
 (tci20120904-02 MAB 192)
- (24) *nzä nane=f kwof\sog/wrm*
 1SG.ABS elder.SIB=ERG.SG [SG>1SG:PST:DUR/ascend]_{TRANS}
 ‘Big sister was putting me up.’ (lit. ‘climbing me up’) (tci20150919-05 LNA 85)

The second group consists of those verbs that are somewhat balanced between middle and transitive templates. One example is *mätraksi* (*matrak-|mät-*), which means ‘exit, come out’ in a middle template, but it means ‘bring out’ in a transitive template. Of the 50 tokens of *mätraksi* in the corpus, 20 are in the middle and 30 in the transitive template. Examples (25) and (26) show examples of middle and transitive templates, respectively. Note that in (25) the verb is inflected with an andative, expressing that ‘the deer went out’. Only (26) expresses a directed CAM event, because (25) lacks the causation component.

- (25) *rusa nima Krä\mät/r/o ŋatha=nzo we*
 deer like.this [SG:IRR:PFV:AND/exit]_{MID} dog=ONLY also
kran\brim/th
 [2|3PL:IRR:IPFV:VENT/return]_{MID}
 ‘The deer went out (of the forest) and only the dogs came back here.’
 (tci20130903-03 MKW 70)
- (26) *zä\thb/é plastik zan\mät/r/é*
 [1SG:RPST:PFV/enter]_{MID} container [1SG>3SG.FEM:RPST:PFV:VENT/exit]_{TRANS}
yabun plastik
 big container
 ‘I went inside and brought out a plastic container, a big plastic container.’
 (tci20120922-24 MAA 47–48)

The verb *mätraksi* does not entail the accompaniment component. In fact, most of the 30 tokens in the corpus express a situation, in which the agent does not move along with the theme, as in (27). These tokens can be classified as caused motion (CM), but not as caused accompanied motion (CAM).

- (27) *köfä näbi sa\mätr/ dis=fa*
 fish(ABS) one [2|3SG>3SG.MASC:RPST:PFV/exit]_{TRANS} dish=ABL
 ‘He took out one fish from the plate.’ (tci20111107-03 RNA 50–51)

Another example from the second group is *frezsi* (*frez-*/*fref-*), which was first translated to me as ‘to take something out of water’. However, its most frequent meaning is ‘to go/come up from the river’. Daily life in Rouku involves a lot of movement back and forth between the village and the Morehead River, where people go fishing, process sago or just enjoy the light breeze during the heat of the dry season. Directedness is entailed in this motion verb since its meaning includes the source, i.e., the river. There are 17 tokens in the corpus in a middle template, as in (28). If used in a transitive template, accompaniment is also entailed. Thus, the 12 tokens in the transitive template all express CAM events, as in (29).

- (28) *zä zf kra\fref/e moth katan zä*
 PROX IMM [1DU:IRR:PFV/come.up]_{MID} path small PROX
w\thn/o
 [3SG.FEM:NPST:IPFV:AND/lie.down]_{PREF}
 ‘We will come up right here. There is a small path along here.’
 (tci20120922-21 DAK 48)

- (29) *ane karo=r thun\frez/rmth zbo*
 DEM OVEN=PURP [2|3PL>2|3PL:PST:DUR:VENT/bring.up]_{TRANS} PROX:ALL
 ‘They brought those (fish) up from the river to bake them here in the oven.’
 (tci20150906-10 ABB 8)

The third group includes those verbs, which occur almost always in the transitive template. The verbs discussed in § 4.1 all belong to this group. One example of a motion specific verb is *ynaksi* ‘put down’. In the corpus there are 79 tokens of *ynaksi*, 4 in a middle, 67 in a transitive, and 8 in a ditransitive template. Example (30) shows a typical use of *ynaksi* in the transitive template. The speaker describes how the yam tubers are brought from the garden into the storage house.

- (30) *fthé e\nak/wre wawa mnz=fo bobo*
 when [1PL>2|3PL:NPST:IPFV/put.down]_{TRANS} yam house=ALL MED:ALL
keke ŋa\fsi/nzre komnzo
 NEG [1PL:NPST:IPFV/COUNT]_{MID} ONLY
e\nak/wr
 [1PL>2|3PL:NPST:IPFV/put.down]_{TRANS}
 ‘When we put them down there in the yam house, we don’t count them, we just put them down.’ (tci20120805-01 ABB 32–33)

Semantically, the third group comprises event types that can be classified as proto-typical transitive events (*ynaksi* ‘put down’, *rafigsi* ‘put on top’, *mtheksi* ‘lift up’, *wakusi* ‘pick up’). As with *mätraksi* above, most verbs of this group do not

entail accompaniment. Instead accompaniment can only be inferred from the context. For example, most corpus examples of *ynaksi* cannot be classified as caused accompanied motion, but as caused motion only. In (31), two participants were asked to arrange pictures in a narrative order. It is clear from the context in that the agent does not move along with the theme. This is in contrast to examples like (30) above, where the context implies that the yam tubers have to be carried to the storage house first.

- (31) *kwot namä oda=me kwa*
 properly good order=INS FUT
wn\zinak/rne
 [1DU>3SG.FEM:NPST:IPFV:VENT/put.down]_{TRANS}
 ‘We will put it down properly in the right order.’ (tci20111004 TSA 158)

4.4 Manner of motion specific verbs in CAM events

There are three verbs used to express CAM events, which are specified for their manner of motion: *rafisi* (*rafi-|rafinz-*) ‘paddle’, *thärkusi* (*thärku-|thärkuth-*) ‘drag’ and *karksi* (*kark-|kar-*) ‘pull, take’.

The three verbs pattern differently. *Thärkusi* ‘drag, crawl’ is used predominantly in the transitive template (12 tokens). The single occurrence of this verb in the middle template describes the crawling motion of a monitor lizard, while all other occurrences are about dragging away another person, as in (32).

- (32) *fafen frisman=é loks z*
 meanwhile policeman=ERG.NSG handcuff ALR
sf/r/nth z
 [2]3DU>3SG.MASC:RPST:IPFV/do]_{TRANS} ALR
su\wäth/nth zen=me ane
 [2]3DU>3SG.MASC:RPST:IPFV/tie]_{TRANS} chain=INS DEM
y\thärku/noth
 [DU>3SG.MASC:NPST:IPFV:AND/drag]_{TRANS}
 ‘In the meantime, the policemen put handcuffs on him and they tied him with a chain. They are dragging that one away.’ (tci20111004 RMA 121–122)

Karksi on the other hand occurs more often in the middle (15 tokens) than in the transitive template (7 tokens). In the middle template, *karksi* means ‘to pull’ and the patient is never indexed on the verb.⁴ This can be seen in (33), where the speaker describes how a man tries in vain to pull another person out of the deep water.

4. By semantic extension, *karksi* can also mean ‘smoke tobacco’ in the middle template.

Accompaniment as well as directedness are only implied by context in this example. Most examples of *karksi* in the middle template in the corpus do not express a directed CAM event.

- (33) *zä kma sa\faf/a*
 PROX POT [SG>3SG.MASC:PST:PFV/hold]_{TRANS}
z=\yé/ kma ŋa\kark/wa ... keke
 PROX=[3SG.MASC:NPST:IPFV/be]_{PREF} POT [SG:PST:IPFV/pull]_{MID} (.) NEG
 ‘He tried to hold him here ... he tried to pull him. But no.’
 (tci20120904-02 MAB 178–179)

In the transitive template, *karksi* means to ‘take something away from somebody’. It is implied that this happens against the person’s will or without her knowledge. With this meaning, the argument indexed on the verb is not the theme, but the (animate) source (34). Hence, one could argue that *karksi* in the transitive template always entails directedness, i.e., away from the person indexed on the verb, as well as accompaniment.

- (34) *ane rokar-rokar y\kark/wath ra*
 DEM REDUP-thing(ABS) [2|3PL>3SG.MASC:PST:IPFV/take]_{TRANS} what(ABS)
z en\rifh/a
 ALR [SG>2|3PL:PST:IPFV:VENT/hide]_{TRANS}
 ‘They took those things off him that he had hidden away.’
 (tci20120925-01 MKA 431)

The third verb is *rafisi* ‘paddle’. It occurs predominantly in the middle template. 25 out of 30 tokens are in this template, as in (35). The boat, canoe or raft that is paddled, is often left unexpressed. If an utterance contains a noun phrase that refers to the vehicle, it is encoded as an external argument, i.e., the canoe in (35) is not the theme, but an instrument.

- (35) *garda=me fthé kwa\rafi/nzrmth boba wazi=nzo*
 canoe=INS when [2|3PL:PST:DUR/paddle]_{MID} MED:ABL side=ONLY
th\yak/m b=e\rä/ zä keke
 [2|3PL:PST:DUR/walk]_{PREF} MED=[2|3PL:NPST:IPFV/be]_{PREF} PROX NEG
 ‘When they were paddling with the canoe, they went only on the other side, not here.’
 (tci20120922-19 DAK 8–9)

There are 4 tokens in the corpus of *rafisi* in the transitive template. As we see in (36), the theme indexed on the verb is the person (or object) that is moved by canoe. The use of the transitive template expresses the CAM event ‘bring/take by canoe’.

- (36) *Watik en\rafi/nzath* *e zbo*
 then [2|3PL>2|3PL:PST:IPFV:VENT/paddle]_{TRANS} until PROX:ALL
swäyé kwosi=n
 canoe.place rotten=LOC
 ‘Then they brought them here to the old anchoring place by canoe.’
 (tci20150906-10 ABB 180)

There is one example in the corpus of *rafisi* in a ditransitive template. In (37), a person is ordered to bring the canoe across the river for a man who is calling out on the other side.⁵ It is the beneficiary that is indexed on the verb. The canoe is a theme in this example, because it is flagged for absolutive case. Note that the beneficiary in (37) also implies the goal and, thus, expressed the directedness component of the CAM event.

- (37) *yasi=f karbu sa\kor/a* *“srank*
 Yasi=ERG.SG Karbu(ABS) [SG>3SG.MASC:PST:PFV/speak]_{TRANS} Srank
b=ya\nor/ “garda” garda
 MED=[3SG.MASC:NPST:IPFV/shout]_{IO.PREF} canoe(ABS) canoe(ABS)
sa\rofäth/!”
 [SG>3SG.MASC:IO:PST:PFV/paddle]_{DITRANS}
 ‘Yasi said to Karbu: “Srank is shouting out there “Canoe!” You take the canoe for him!”’
 (tci20111107-01 MAK 68–70)

4.5 Stative verbs in CAM events

Stative verbs like *fathasi* (*fath|faf-*) ‘hold’ can be used to express CAM events. The motion component is added to the otherwise stative verb by a directional affix on the verb form. This can be seen in (38), where the speaker talks about preparing for a hunting trip.

- (38) a. *watik kren\far/e* *ɲatha=karä=sü katakatan kafar*
 then [1PL:IRR:PFV:VENT/set.off]_{mid} dog=PROP=ETC small big
 ‘We will get going with the dogs and all, small and big ...’
 b. *nabi näbun=é thran\fath/wrth*
 bow(ABS) INDF=ERG.NSG [2|3PL>2|3PL:IRR:IPFV:VENT/hold]_{TRANS}
 some (men) will bring their bows.’ (tci20110813-09 DAK 12–13)

5. The example shows a different verb stem of *rafisi*: *rofä-|rofäth-* instead of *rafi-|rafinz-*. This is due to dialectal variation.

Stative verbs in CAM events occur often when the concept of motion is present, either from a preceding motion verb or from context. In (38) above, the motion verb *farksi* ‘set off’ introduces the motion component. In Example (39), the speaker describes a picture card to another person. The context is the scene on the card itself, which makes it clear that someone is moving.

- (39) *nafa-ŋama=f* *wn\fath/wr* *o*
 3.POSS-mother=ERG.SG [2|3SG>3SG.FEM:NPST:IPFV:VENT/hold]_{TRANS} OR
yn\fath/wr
 [2|3SG>3SG.MASC:NPST:IPFV:VENT/hold]_{TRANS}
 ‘The mother carries a girl or a boy?’ (tci20111004 RMA 324)

4.6 Template choice and causation

As we have seen in the previous section, the transitive and ditransitive templates are the preferred strategy to derive causatives from intransitive motion verbs. This was shown for verbs like *sogsi* ‘ascend’ (23–24), *mätraksi* ‘exit’ (25–26), *frezsi* ‘go/come up from river’ (28–29) or *brigsi* ‘return’ (4a–4b). In this section, I offer a frequency analysis of the relevant motion verbs in the corpus.

We saw that template choice is somewhat fluid. As shown in Table 6, lexemes can be assigned to one of three groups based on the occurrence of middle versus transitive/ditransitive templates in the corpus. Groups I (middle) and III (transitive) contains those lexemes for which more than 50% of tokens occur in either one of the templates. Lexemes, for which template choice is not skewed beyond 50%, were assigned to group II (balanced). Note that the two prefixing templates do not play a role for the expression of CAM events.

One observation is that it is more common for verbs in group I (middle) to be used in the transitive template than for verbs in group III (transitive) to be used in the middle template. In other words, the transitive template is commonly used as a strategy for causativization in Komnzo. The reverse is not true and the few attested tokens in the corpus encode a reflexive/reciprocal or passive alternation. See (40) below as an example. The basic verbs used to express CAM events (§ 4.1) all fall into group III and, more importantly, they rarely occur in the middle template.

Template fluidity is important for the expression of CAM events, but it has to be seen as a wider phenomenon within Komnzo that applies to a large part of the verb lexicon. However, template fluidity is not fully productive and template choice is determined for many lexemes. An example not discussed here, because the verb is not involved in CAM events, is the intransitive motion verb *farksi* (*fark-* |*far-*) ‘set off, get going’. It is plausible to assume that this lexeme could be placed

Table 6. Motion verbs and template choice

Group	Lexeme	English	Middle	Transitive/ ditransitive
I	<i>brigsi</i>	‘return’	137	42
	<i>fothaksi</i>	‘take off’	3	1
	<i>karksi</i>	‘pull, take’	15	7
	<i>rafisi</i>	‘paddle’	24	6
	<i>ritaksi</i>	‘cross over’	40	6
	<i>rsörsi</i>	‘descend’	21	2
	<i>sogsi</i>	‘ascend’	24	8
	total		264	72
II	<i>firaksi</i>	‘take off’	3	4
	<i>frezsi</i>	‘come up’	19	12
	<i>mättraksi</i>	‘exit’	32	23
	<i>tharufaksi</i>	‘enter’	11	8
	<i>thorsi</i>	‘enter’	36	41
	total		101	88
III	<i>fathasi</i>	‘hold’	30	182
	<i>fethaksi</i>	‘dip into’	–	1
	<i>fithwogsi</i>	‘take out from underneath’	–	3
	<i>mezsi</i>	‘fetch’	–	21
	<i>miyanzsi</i>	‘fetch’	–	10
	<i>mtheksi</i>	‘lift up’	2	9
	<i>rafigsi</i>	‘put on top’	5	16
	<i>rakthksi</i>	‘put on top’	–	5
	<i>thärkusi</i>	‘drag, crawl’	1	12
	<i>wakusi</i>	‘pick up’	–	5
	<i>yaroksi</i>	‘escort’	–	13
	<i>ynaksi</i>	‘put down’	4	75
	<i>zknsi</i>	‘move’	1	7
	<i>zrin</i>	‘carry’	4	101
	total		47	460

in a transitive template after what we have seen so far. One would predict that the causative alternation has the meaning of ‘take something away’. However, this is neither attested in the corpus, nor is it grammatical. Out of the 177 tokens in the corpus not a single one occurs in the transitive template. Thus, we have to conclude that the template choice for *farksi* is lexically determined.

5. Information distribution in CAM events

Information is often distributed over several verbs or several clauses in Papuan languages. This has been pointed out by many authors, for example by Pawley (1993) or by de Vries (2005). Komnzo is no exception in this respect. As for CAM events, I show here how this simple fact causes analytic problems in recognizing and coding directed CAM events in the corpus. I argue that one has to take a longer stretch of speech into account, i.e., more than a single clause.

There are only few examples in the corpus, where most or all elements are expressed overtly. There are even fewer examples, where these are expressed in a single clause. Consider Example (40) below. In the recording, the speaker shows off the content of his yam-house and explains which of the stored tubers will be eaten at what time. In (40b), all of the elements come together: the source (*Fsanma* ‘from Fsan’) and goal (*zböwä* ‘hither, right here’) are expressed overtly and the verb is marked with a venitive (*n-* ‘hither’). Note that the copula in (40a) is also marked with a venitive. Directional marking on the copula is a common strategy in Komnzo to express the meanings of ‘come’ and ‘go’. What is unusual in (40b), is the use of the middle template for the verb *zrin*. This is the only token of *zrin* in the middle template, and it encodes a passive alternation here.

- (40) a. *bäne=ma b=en\rä/*
 RECOG=CHAR MED=[2|3PL:NPST:IPFV:VENT/be]_{PREF}
 ‘They will come from whatchamacallit ...’
- b. *fsan=ma nä kwa ŋan\zä/nzrth*
 Fsan=CHAR INDF FUT [2|3PL:NPST:IPFV:VENT/carry]_{MID}
zbö=wä zf
 PROX:ALL=EMPH IMM
 from Fsan ... they will be carried right here ...
- c. *tagon fthé e\thkär/wr*
 food(ABS) when [1PL>2|3PL:NPST:IPFV/start]_{trans}
 when we will start eating them.’ (tci20121001-08 ABB 44–46)

Example (40) above shows that it is possible to express (almost) all elements overtly in a single clause, or rather in a single intonation unit. This is the exception rather than the norm in Komnzo. In Example (41), the speaker describes how an injured man was placed on a stretcher and then carried to the village. The example starts with the instrument, with which the man was carried (‘stretcher’) in (41a). However, the CARRY verb *zrin* only follows in the last utterance in (41d). In the intervening clauses (41b–c), the speaker elaborates on the stretcher and how the

man was placed on it. Note that the venitive marking on the PUT verb *rafigsi* in (41c) relates to the directedness of the whole CAM event, not to the placement of the man on the stretcher. It does not mean ‘they put him on top of the shoulder here’, but ‘they put him on top of the shoulder hither (or while coming)’. The CAM event is only concluded in (41d), where the CARRY verb is marked also with a venitive and there is an adverbial demonstrative in the clause. Therefore, I suggest to analyse the entire series of clauses (41a–d) as one directed CAM event, not only the last clause (41d).

- (41) a. *zaza=me* *nzaranzara=me*
 carrying.stick=INS stretcher=IN
 ‘With a carrying stick ... with a stretcher ...’
- b. *neba eda thf\yan/m* *neba eda*
 opposite two [2|3DU:PST:DUR/walk]_{PREF} opposite two
 two (people) were walking on one side and two on the other ...
- c. *thwak=fo san\rafinz/th*
 shoulder=ALL [2|3PL>3SG.MASC:PST:PFV:VENT/put.on.top]_{TRANS}
 they put him on the shoulders ...
- d. *yn\zä/nzath* *zbo*
 [2|3PL>3SG.MASC:PST:IPFV:VENT/carry]_{TRANS} PROX:ALL
 and carried him here? (tci20120904-01 MAB 100–113)

A second example comes from a *nzürna* story (42). In these stories, the unfortunate protagonist is usually caught by a malevolent spirit called *nzürna*. In this particular story, the *nzürna* character pretends to help a man in butchering and cleaning the animals that he has hunted. In (42), he orders her to bring the intestines to the water and wash them. The narrator of the story expresses this command in two intonation units. The CARRY verb *zrin* in the first intonation unit lacks directedness (42a). This definitional component of directed CAM events is only added in the second intonation unit with a venitive prefix and an allative marked noun phrase (42b). However, the venitive occurs on the verb *maiksi* ‘wash’. Hence, the second clause is marked for directedness, even though the man does not order her to perform the process of washing in a direction. Instead, the directional marker on the WASH verb relates to the whole event, i.e., the CAM event, and not the subevent, i.e., the WASH event. It follows that we have to analyse the two intonation units together. For a full analysis of CAM events in Komnzo, we have to take into account longer stretches of discourse, and not only the clause or verb level.

- (42) a. *za\kor/a* “*wth* *ane*
 SG>3SG.FEM:PST:PFV/speak intestines(ABS) DEM
thä\thor!
 [2SG>2|3PL:IMP:PFV/carry]_{TRANS}
 ‘He said to her “You bring those intestines ...
- b. *thän\mayuf/* *no=fo!*
 [2SG>2|3PL:IMP:PFV:VENT/wash]_{TRANS} water=ALL
 and wash them in the water!’” (tci20120827-03 KUT 53–54)

6. Conclusion

Komnzo does not have a specific construction for the expression of directed CAM events, and instead employs its verb lexicon. As a consequence, this chapter took a lexical perspective on the expression of CAM events. In this concluding section, I analyse the frequency of the four components in the corpus. Moreover, I take a closer look at the attested CAM events with respect to the overt expression of directional marking, goal and source.

In Table 7, we see the frequency of the four definitional components of CAM events for a subset of the lexemes. Since the four components are to some extent independent, Table 7 does not list directed CAM events. Instead Table 8 below, shows those occurrences, where all four definitional components come together. Note that I counted the presence/absence of a component for each token regardless how it was expressed. For example, accompaniment can be encoded by template choice, it can be entailed in the meaning of the verb, or it can be implied by the context.

Table 7. Lexemes tokens and the four definitional components in the corpus

Lexeme	English	Tokens	Directedness	Causation	Accompaniment	Motion
<i>brigs</i>	‘return’	180	180	43	33	180
<i>fathasi</i>	‘hold’	212	23	212	212	23
<i>frezsi</i>	‘come up from river’	31	31	12	8	31
<i>mezsi</i>	‘fetch’	21	19	21	21	21
<i>miyanzsi</i>	‘fetch’	10	6	10	10	10
<i>mätraksi</i>	‘exit’	55	55	23	10	55
<i>rafisi</i>	‘paddle’	30	19	6	6	30
<i>yaroksi</i>	‘escort’	13	10	13	13	13
<i>zrin</i>	‘carry’	105	71	105	105	105
total		657	414	445	418	468

The data suggests a few interesting patterns. The four components (directedness, causation, accompaniment, motion) are co-lexicalized for some verbs, while they

are independent for others. The first point might be trivial: all lexemes are motion verbs, i.e., the motion component is entailed in their meaning. The only exception is *fathasi* ‘hold’, for which motion is derived via the directional affixes (§ 4.5).

A second observation is that directedness is entailed in some lexemes (*brigsi*, *frezsi* or *mätraksi*), but not in all. For other lexemes (*zrin*, *rafisi*), directedness is expressed morphologically (directional affixes) or at the clause level (adverbial demonstratives, NPs flagged for case).

Thirdly, causation is derived for some lexemes via template choice (*brigsi*, *frezsi*, *mätraksi*), but for other lexemes it is entailed in their meaning (*zrin*, *mezsi*).

Fourthly, the two components of causation and accompaniment are somewhat independent. The two components fall together in the meaning of some lexemes (*zrin*, *yaroksi*), while this is not the case for other lexemes (*brigsi*, *frezsi*, *mätraksi*). Let us take a closer look at *mätraksi*. There are 55 tokens in the corpus. Causation (‘bring/take someone or something out’) is part of only 23 tokens. The other 32 tokens are intransitive (‘come/go out’). Only 10 tokens include the accompaniment component, which means that for 13 tokens there is causation without accompaniment. We saw one such example in (27) above. The difference between accompaniment and the other components is that its absence versus presence can only be inferred from the context, unless it is entailed in the meaning already (e.g., *yaroksi*).

We may conclude that some lexemes are more manner-oriented, while other lexemes are more path-oriented. For path-oriented lexemes (*brigsi*, *frezsi*, *mätraksi*), the directedness and the causation components fall together, i.e., all caused motion events are also directed caused motion events. For manner-oriented lexemes (*zrin*, *rafisi*, *yaroksi*), the accompaniment and the causation components fall together, i.e., all caused motion events are also caused accompanied motion events.

In the last part, I turn to directed CAM events and their frequency in the corpus. Table 8 shows the subset of verbs again.

Table 8. Directed CAM events

Lexeme	English	Tokens	Dir. affix	Goal	Source	Both
<i>brigsi</i>	‘return’	33	20	21	4	2
<i>fathasi</i>	‘hold’	23	23	3	2	–
<i>frezsi</i>	‘come up from river’	8	2	5	8	2
<i>mezsi</i>	‘fetch’	19	15	10	3	2
<i>miyanzsi</i>	‘fetch’	6	2	5	1	1
<i>mätraksi</i>	‘exit’	10	7	4	5	2
<i>rafisi</i>	‘paddle’	4	2	2	0	0
<i>yaroksi</i>	‘escort’	10	7	6	2	0
<i>zrin</i>	‘carry’	71	38	45	15	5
total		184	116	101	40	14

The table shows that the directional affixes carry a heavy functional load in the expression of CAM events. Almost two-thirds of all directed CAM events in the corpus employ one of the directional affixes. For some lexemes (*mezsi*, *mättraksi*, *yaroksi*) this figure is much higher. Moreover, the table shows that the goal argument is expressed overtly more often than the source argument. The only lexeme for which this relationship is reversed is *mättraksi* ‘exit’, where the source is more salient. As a last point, note that source and goal are rarely overtly expressed together. This observation ties in with the general preference to distribute information across several clauses (§ 5).

This chapter placed a focus on the role of verb morphology and its interaction with lexical semantics. As I have shown, the expression of CAM events revolves around a handful of very frequent lexical items (CARRY, FETCH, RETURN verbs). The system of verb templates, and the fluidity therein, provides a productive mechanism to derive causative alternations of intransitive motion verbs. Finally, the chapter showed how the system of adverbial demonstratives and case markers interact with lexical semantics and verb morphology in the expression of CAM events.

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Abbreviations

\.../	verb stem (e.g. y\fath/wr)	ALL	allative case
(.)	speech pause	ALR	iamitive (‘already’)
.	multi-item gloss (e.g. old.man)	AND	andative
	used in cases of syncretism (e.g. 2 3 person)	ANIM	animate
1	first person	ASSOC	associative case
2	second person	CHAR	characteristic case
3	third person	DEM	demonstrative
ABS	absolute case	DIA	diathetic prefix
ABL	ablative case	DIST	distal (deictic)
		DITRANS	ditransitive template

DU	dual	MID	middle template
DUR	durative	NPST	non-past
EMPH	emphatic	NSG	non-singular
ERG	ergative case	ONLY	exclusive marker ('only' 'just')
ETC	et cetera	PFV	perfective
FEM	feminine	PL	plural
FUT	future	POSS	possessive
IMM	immediate ('right here')	PREF	prefixing template
IMP	imperative	PROX	proximal (deictic)
INDF	indefinite	PST	past
INS	instrumental case	PURP	purposive case
IO	indirect object	RECOG	recognitional
IPFV	imperfective	REDUP	reduplication
IRR	irrealis	RPST	recent past
LOC	locative case	SG	singular
M	middle	TRANS	transitive template
MASC	masculine	VENT	venitive
MED	medial (deictic)		

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