

Valency in NlIng

1 Introduction

This paper describes the main patterns of valency and valency alternations of NlIng verbs.¹ NlIng is the last living member of the !Ui branch of the Tuu language family (aka “Southern Khoisan”) (cf. Güldemann 2000, Güldemann 2005). Other names that are used are Nluu, Nlhuki, or #Khomani but these only refer to the northwestern-most variety. NlIng is a moribund language, which is currently spoken by less than 10 elderly individuals in the Northern Cape Province of the Republic of South Africa. All speakers use Afrikaans as their language of daily communication, and some also speak Nama or Tswana. Even though the speakers had not been actively using NlIng for decades before intensive linguistic investigation began in the early 2000s, most of them are surprisingly fluent: they are able to narrate stories, have conversations, and translate words and sentences without major problems. Despite its small number of speakers, NlIng displays considerable idiolectal variation in all domains of the language, such as phonology, lexicon, grammar, and discourse. Part of this variation is due to earlier dialectal differentiation; at least three different dialects can be distinguished, of which only the northwestern-most Nluu is represented by more than one speaker. The paper is organized as follows. Section 2 provides an account of the basic clause structure of NlIng. Section 3 gives an overview of the major and minor coding frames. Sections 4 and 5 discuss various types of valency alternations.

¹ The data for this paper was collected between 2003 and 2011 during several field trips, in particular for the language documentation project “A text documentation of Nluu”, which was funded by the Endangered Language Documentation Programme (ELDP) between 2007 and 2011. So far, the project members (Tom Güldemann, Martina Ernszt, Sven Siegmund, and Alena Witzlack-Makarevich) have recorded a corpus of approximately 50 hours of natural spoken discourse, and translated and annotated approximately 100,000 words. The great majority of the collected material is in NlIng, but it includes also some texts which are partly or exclusively in Afrikaans. The focus of the corpus is on naturally produced language, e.g. coherent texts like folk tales, personal stories, and conversations. M. E., T. G and A. W.-M. designed the study and were involved in discussing and interpreting the results. All authors contributed to the writing with M. E. having the leading role. M. E. and A. W.-M. implemented the corpus analysis and data extraction. We thank Sven Siegmund for help in data collection.

Section 6 addresses the fundamental question of whether there are valency classes in NlIng. Finally, Section 7 summarizes the results of the paper.

2 Basic clause structure

NlIng is predominantly isolating with little productive morphology; clause operators for aspect, tense, mood, polarity, etc. are marked by particles. Apart from a couple of suppletive stems for singular and plural subjects, verbs show no agreement marking. NlIng clause structure is characterized by an extremely rigid constituent order, which plays an important role in the expression of argument structure, namely [SBJ V DAT OBJ PREP+OBL]. NlIng allows zero-anaphora for arguments that are recoverable from the context in any grammatical function of the clause, though zero-anaphora is most common for objects.

On the basis of constituent order and argument marking we distinguish in NlIng the following language-specific grammatical relations; the last three relations are marked by different prepositions:

1. subject (SBJ)
2. object (OBJ)
3. dative (DAT)
4. comitative-instrumental (COM/INS)
5. similative (SIM)
6. multi-purpose oblique (OBL)

The grammatical relation of subject includes the sole argument of one-argument verbs (S) and the agent-like argument of two- and three-argument verbs (A). S and A exhibit identical coding in every context: these constituents always precede the verb and are mostly unmarked, such as *a* for 2SG in (1). In addition, in some contexts conditioned by the information structure of the clause, the subject can be marked with the suffix *-a* or followed by the particle *ke* (glossed here as IS), but the distribution of these markers is not relevant for the present discussion (see Güldemann & Siegmund 2009 and Güldemann 2010 for some discussion).

The grammatical relation of object encompasses the patient-like argument of

most two-argument verbs and the theme-like argument of three-argument verbs. This relation is formally identified as the only unmarked noun phrase following the verb, such as *ng ka khiin* (1SG PL leg) ‘my legs’ in (1):

- (1) *a si lhaa ng ka khiin*
2SG IRR break 1SG PL leg
‘You will break my legs.’ (NM081007-02aA.054)

Apart from subject and object, many three-argument verbs take a dative noun phrase. It is marked by the DAT suffix *-a* (relevant for both nouns and pronouns), which sometimes is followed by an additional dative postposition *i*.² The dative noun phrase immediately follows the verb and precedes the object, such as *#huin-a* ‘dogs’ in (2):

- (2) *na aa #huin-a llai-ke*
1SG give dog.PL-DAT bone.PL-PL
‘I give the bones to the dogs.’

Prepositional arguments and adjuncts are always postverbal and follow all other arguments. They are marked by one of the three prepositions: the comitative-instrumental preposition *n/a* ‘with’, the similative preposition *l/aa* ‘like’, and the multi-purpose oblique preposition *ng*.

It is important to note that in NlIng there is no formal or behavioral distinction between prepositional arguments and prepositional adjuncts: Both are marked in exactly the same way, have identical behavior, and neither is obligatory, because arguments can be expressed by zero-anaphora.

As its name suggests, the major function of the comitative-instrumental preposition *n/a* is to mark arguments and adjuncts with comitative and instrumental semantics, as in (3) and (4):

² The use of the dative postposition *i* is partly idiolectal: Some speakers never use it, whereas other speakers use it often, but not always.

Comitative:

- (3) *si lqoqon, lqoqon nla llhailaa*
1PL.EXCL dance dance COM girl
'We dance, (we) dance with the girl.' (NE080825-01_A.069)

Instrumental:

- (4) *ʔoo laa pree nla nʔona*
man cut bread INS knife
'The man cuts the bread with the knife.' (NM091103-01_B-VC_BI.18;
elicited)

The similative preposition *llaa* is used to code the standard of comparison in constructions implying or indicating likeness or resemblance, such as *llaa si* 'like us' in (5). Similative clausal dependents always have the status of adjuncts and will therefore not be discussed any further here.

- (5) *kinn ke llu ʔxoa llaa si*
3PL IS NEG speak SIM 1PL.EXCL
'They don't speak like us.' (NC060710-02dA.008)

The oblique preposition *ng* is the semantically most general and most common preposition in Nllng. For third person pronouns there are portmanteau forms, *nlla* (3SG.OBL) and *nllngke* (3PL.OBL), as in (38a). The oblique preposition can introduce both arguments and adjuncts; it is used to mark dependents with a wide range of semantic roles, such as location (6), goal, source (7), temporals (8), addressee (19), cause (9), etc.

- (6) *ng xa !xoo-a ng Glui*
1SG PST grow-PFV OBL Glui
'I grew up at Glui.' (NM081023.05_E.048)

- (7) *na hoo ng Glari*
1SG come.from OBL Glui

'I come from Uppington.' (ND040929-01aA.&16; elicited)

(8) *#oo saa ng gllaa*

man come OBL night

'The man comes at night.' (NE060715-01cA.094)

(9) *na si kx'uu o'ui'i ng haqa'i-ki*

1SG IRR do be.sick OBL be.hot-NOM

'I will get sick from the heat.' (NF091005-01_B.018; elicited)

3 Coding frames

3.1 Major coding frames

This section presents the major coding frames of Nllng. As the Appendix and the discussion in Section 6 show, many verbs occur regularly in more than one coding frame without any overt marking for valency change. Therefore, it is often not possible to determine a single basic coding frame for a verb.³

3.1.1 The intransitive and transitive frames (SBJ V and SBJ V OBJ)

The simplest and most common coding frames are the intransitive and the transitive frames. Note that the use of intransitive and transitive in our terminology is defined by the presence or absence of an object (see below for zero-anaphora).

The (sole) S argument of the intransitive frame, the A (agent) and P (patient) arguments of the transitive frame as well as all nominal elements in equational sentences have no overt flagging, as (10), (11), and (12) illustrate:

³ Note that this does not mean that all possible coding frames of a verb should be regarded as basic. We regard a coding frame as basic when it is likely to be used in elicitation, for instance, when a speaker is given a certain verb in isolation and is then asked to produce a sentence using this verb. In such situations, some coding frames are definitely much more likely to be used than other possible, but non- or less-basic coding frames. Therefore, some coding frames are more basic than others for a certain verb. But at the same time, there are verbs which are likely to be used in two or more different coding frames in this form of elicitation, and in these cases, more than one coding frame must be regarded as basic. For further discussion of basic coding frames, see Section 6.

(10) *a si l'aa*
2SG IRR die
'You will die.' (NC091007-01_B.054)

(11) *a si gloe gaake llhaike*
then 1PL.EXCL also steal milk
'Then we also steal milk.' (NM080903-01bE.164)

(12) *ng llu ng gllain*
1SG NEG COP brown.hyena
'I am not the hyena.' (NB041016-08_A.075)

The vast majority of two-argument verbs are transitive. The only exception is the verb *hoo(-ke)* 'come from', whose second argument is always marked by the oblique preposition (cf. Section 3.1.2). Other verbs can occur in a SBJ V OBL construction, too, but for these verbs, this is either an alternative frame to a more basic transitive or intransitive frame, or the construction can be alternatively analyzed as the intransitive frame with an additional prepositional adjunct.

3.1.2 The oblique frame (SBJ V OBL)

While the major two-argument pattern involves two unmarked arguments (SBJ and OBJ), the non-subject argument of some verbs can be alternatively marked with the oblique preposition *ng*. The only verb found so far which has the oblique frame as its sole basic coding frame is *hoo(-ke)* 'come from', illustrated in (20).

(20) *ng hooke ng nlng laeki*
1SG come.from OBL 1SG woman
'I come from my wife.' (NB041016-01_A.038)

All other verbs that can occur in the oblique frame also occur regularly in one or more other frames, e.g. the oblique frame alternates with the transitive frame (e.g. with *!ai* 'take'), the intransitive frame (e.g. with *ʃ'unn* 'get full', cf. 28b), or with both of them (e.g. with *!auka* 'be afraid (of), fear'). As already stated above, in those cases where the verb can also occur in the intransitive frame, it is often difficult to decide whether the oblique noun phrase should be regarded as an argument or as an adjunct (for further discussion on the oblique frame see Sections 4.1.2 and 4.2.1).

3.1.3 The transitive+dative and transitive+oblique frames (SBJ V DAT OBJ and SBJ V OBJ OBL)

Three-argument constructions distinguish two major patterns. Some transfer verbs, such as *aa* 'give' and *kadyama* 'show', take two unmarked arguments (SBJ and OBJ, with the OBJ being the theme-like argument) and a recipient-like argument in the dative, as (13) and (14) show. These constructions are canonical ditransitive constructions with indirective alignment.

(13) *ku aa !'huunsi-a ʃxani-si*
 3H.SG give Boer-DAT letter-SG
 'He gives the letter to the Boer.' (NE060715-02aA.041)

(14) *kua kadyama na lluruke*
 3H.SG show 1SG.DAT road
 'He shows me the way.' (NF081128-01_B_ditrans.004a; elicited)

The second major three-argument pattern has two unmarked arguments (SBJ and OBJ) and an argument marked by the oblique preposition *ng*. This pattern occurs with the verbs of putting, as in (15) and (16), and some verbs of transfer of message, such as *!'hoe'in* 'ask for' as in (17). In this construction the OBJ is the more theme-like argument, whereas the OBL argument often is a location-like argument in the broadest sense of the term (e.g. a goal or source argument, including both animate and inanimate referents, cf. (17)).

(15) *ki llhoo ki nlaa ng ki ka #aun-ke*
 3NH.SG put 3NH.SG head OBL 3NH.SG PL buttock-PL
 'It (the ostrich) puts its head onto its buttocks.' (NG060718-02cA.162)

(16) *#oo n!ao #au ng kuni-si*
 man load tsamma OBL cart-SG
 'The man loads tsamma melons onto the cart.' (NC091127-01_B-VC.03; elicited)

(17) *#oo ke !'hoe'in mari ng #oo a ko*
 man IS ask.for money OBL man this other
 'The man asks the other man for money.' (NF091018-01_B-VC_F.29; elicited)

3.1.4 The clause frames (SBJ V CLAUSE and SBJ V OBL CLAUSE)

Apart from verbs taking noun phrases as their arguments, some Nllng verbs most frequently occur with a full clause following the verb. These clauses do not differ from independent clauses of the language and show no traces of syntactic embedding into the verbal matrix, so we do not consider them verbal objects (cf. Güldemann (2008) for some discussion).

Two subtypes of this pattern can be distinguished. In one type, the verb only occurs in a construction with nothing but the subject and the clause. This applies, for instance, to verbs of thinking, such as *#'ain(-ke)* 'think', illustrated in (18):

(18) *ng #'ain u si xuu ki-ke ...*
 1SG think 2PL IRR leave 3-PL
 'I think you must leave them ...' (NM071022-01aA.339b)

Other verbs, namely some verbs of speaking, such as *ku* 'say', can take an additional addressee argument marked by the oblique preposition *ng*. In this case, the utterance clause follows the oblique argument, as in (19):

(19) *ng si ku ng l'huun-si a xa ll'ae l'kx'abe-si*
 1SG IRR say OBL white.person-SG 2SG PST go.to cream-SG
 'I will say to the Boer (that) you went to [steal] the cream.' (NB041016-01_A.033)

3.1.5 Summary of major coding frames

The seven major coding frames of Nllng discussed above are schematically summarized in Table 1.

Schematic representation						Label	Example verbs
SBJ	V					intransitive frame	<i>dyaqnn</i> 'walk' <i>aan l ain</i> 'eat'
SBJ	V		OBJ			transitive frame	<i>lai</i> 'take' <i>aan l ain</i> 'eat'
SBJ	V			OBL		oblique frame	<i>hoo(-ke)</i> 'come from'
SBJ	V	DAT	OBJ			transitive+dative frame	<i>aa</i> 'give' <i>kadyama</i> 'show'
SBJ	V		OBJ	OBL		transitive+oblique frame	<i>llhoo</i> 'put down' <i>!hoe'a / !hoe'in</i> 'ask for'
SBJ	V				CLAUSE	clause frame	<i>#ain</i> 'think' <i>ku</i> 'say'
SBJ	V			OBL	CLAUSE	oblique+clause frame	<i>ku</i> 'say'

Table 1: Templatic structure of major coding frames

3.2 Minor coding frames

Apart from the major coding frames illustrated in Section 3.1, Nllng has some minor coding frames, which only occur as alternative patterns of verbs that have some major coding frame as the basic one. Some of the more common minor frames are the dative frame (SBJ V DAT), the comitative-instrumental frame (SBJ V COM/INS), and the transitive+comitative-instrumental frame

(SBJ V OBJ COM/INS). Table 2 gives an overview of the templatic structure of these minor coding frames. These coding frames will be exemplified in the following sections.

Schematic representation				Label	Example verbs
SBJ	V	DAT		dative frame	<i>lkx'ae</i> 'tell', <i>qann</i> 'show',
SBJ	V		COM/INS	comitative-instrumental frame	<i>#anu</i> 'cover with'
SBJ	V		OBJ	transitive+comitative-instrumental frame	<i>hui</i> 'help', <i>laa</i> 'cut'

Table 2: Templatic structure of minor coding frames

4 Valency alternations without coding on the predicate

In Nilng, most valency alternations are not coded on the verb or nuclear predicate,⁴ instead, with many verb lexemes, one and the same morphological form regularly occurs in more than one coding frame.

Most valency alternations that are not coded on the predicate consist of a change of the number of arguments only, i.e. an argument is simply added or removed while the verb and the morphosyntactic properties of all other arguments remain unchanged. The most frequent variants of this type of alternation are presented in Section 4.1.

Another type of alternation that is not coded on the predicate affects the morphological encoding of one argument. Again, all other arguments remain unaffected. These alternations are discussed in Section 4.2.

One alternation, the S=O ambitransitive alternation, affects the number of arguments as well as the assignment of grammatical relations to them. It is described in Section 4.3.

⁴ The term “uncoded alternations”, which has been proposed by the editors of this volume for alternations which do not show any coding for valency alternation on the verb or in the predicate, will be avoided here, because it might cause confusion when it comes to alternations which are “uncoded” in the predicate, but which involve a change in the coding behavior of arguments.

4.1 Valency alternations only affecting the number of arguments

The facts that Nilng allows zero-anaphora for all grammatical relations and that some arguments cannot be differentiated from adjuncts on a formal basis can make it sometimes difficult to decide in individual cases whether the variation in the number of overtly expressed dependents is the effect of a valency alternation, or whether we are dealing with zero-anaphora, or with the addition of an adjunct to a clause. However, if one takes the context into account, it is often unproblematic to identify instances of zero-anaphora, and semantic criteria can be used to differentiate between arguments and adjuncts. Although some problematic cases remain, it is, in general, possible to establish different types of valency alternations that affect the number of arguments only.

4.1.1 The S=A ambitransitive alternation

A number of verbs in Nilng occur in both the intransitive and the transitive coding frames. In case of the S=A ambitransitive alternation, the subject of the transitive coding frame corresponds to the subject of the intransitive coding frame, and the object of the transitive coding frame is absent in the intransitive coding frame. On the level of grammatical relations, no alternation needs to be assumed, because S and A both constitute a single SBJ category. As we show in detail in Section 6, some verbs that allow the S=A alternation show a clear preference for either the intransitive or transitive use, whereas other verbs do not show any preference and are frequently used in both coding frames. Some examples of verbs which regularly occur in both coding frames are *ain* 'eat' (26a–b), *soo* 'sit (at/on)', or *kx'ain'a* 'laugh (at)'.

(26a) *a ng ain*
then 1SG eat
'Then I eat.' (NC080903-01_A.113)

(26b) *i xa ain #aullaa*
1PL.INCL PST eat seed.PL
'We ate seeds.' (NM071107-01_A.0258)

4.1.2 OBL addition or deletion

In this type of alternation, an oblique argument can be present or absent. The alternation has two subtypes: In the first subtype, the transitive frame alternates with the transitive+oblique frame, as in (27):

(27a) *ng ll'ama !xoo-si*
1SG buy pipe-SG
'I buy a pipe.' (NC080903-01_A.011)

(27b) *na ll'ama loaxu ng ku*
1SG buy sheep OBL 3H.SG
'I buy sheep from him.' (NC081204-01_B_ditrans.008c; elicited)

In the second subtype, the intransitive frame alternates with the oblique frame. This type of alternation occurs only with few verbs, the alternation can be illustrated with the verb *ʃ'unn-a* 'be full (of)':

(28a) *ʃqoa ke ʃ'unn-a*
pot IS be.full-PFV
'The pot is full.' (NE080104-01_B.018; elicited)

(28b) *oœ ke ʃ'unn-a ng sunn*
meat IS be.full-PFV OBL fat
'The meat is full of fat.' (NM091006-01_B.005; elicited)

Other verbs that allow this alternation are e.g. *suin* 'sit down (at/on X)' and *!auka* 'be afraid (of X)'. Note that both these verbs can also encode the second participant as an object instead of an oblique phrase, without any change in meaning (this means they also allow the OBJ↔OBL alternation, cf. Sections 4.2.1 and 7).

The semantic role of the oblique argument depends on the verb. In general, the oblique object can encode a wide range of different semantic roles. It can mark material or substance (e.g. 'make X out of OBL', 'fill X with OBL', 'be full

of OBL', as in (28b)), an addressee (e.g., 'say X to OBL'), a location, goal, or source (e.g., 'sit down on/at OBL', 'tie X to OBL', 'put X into OBL', 'remove X from OBL', 'buy X from OBL', as in (27b)), or something that you help someone with ('help X with Y').

4.1.3 COM/INS addition or deletion

A comitative-instrumental noun phrase can be added to basically every coding frame with a predicate that involves an action that is or can be carried out with an instrument (e.g. 'cut', 'hit', or 'eat') or a companion (e.g. 'walk', 'play'). Once again, in these cases there is often no clear boundary between COM/INS arguments and adjuncts.

COM/INS noun phrases can also be added to some verbs of communication, as in (29), where the COM/INS encodes the addressee:

- (29) *maar llaa'a llaqla'a nla !uu*
but PROH speak COM/INS person
'But don't speak with anybody!' (NB041016-05_A.048)

In some cases, a COM/INS noun phrase can be used to encode a substance or material-like entity (e.g. 'fill X with Y', 'be full of X', 'make X out of Y' and 'load X with Y').

- (30) *#oo ke n!ao kunisi nla lhee*
man IS load cart-SG INS grass
'The man loads the cart with grass.' (NE091126-02_B-VC_E.03b)

- (31) *#oo ke kx'uu nllng nla lhee*
man IS make house INS grass
'The man builds a house out of grass.' (NE091126-02_B-VC_E.24, elicited)

Note that all these verbs can also be used in the transitive coding frame (without the COM/INS), and that all these verbs can alternatively encode the

substance or material-like entity as an oblique. Examples such as (30) and (31) can therefore either be regarded as instances of COM/INS addition, an alternation that affects the number of arguments, or as instances of the OBL ⇔ COM/INS alternation (cf. Section 4.2.2 below), an alternation that allows encoding the same arguments in different ways. The same is true for the verb *hui* ‘help (X with Y)’, where the person helped or the thing helped with can either remain unexpressed, or, when expressed, it can be encoded in the comitative-instrumental or in the oblique.

4.1.4 OBJ deletion from the transitive+dative frame

The dative frame can occur as an alternative frame with some verbs that take the basic frame transitive+DAT, e.g. with *lkx’ae* ‘tell’, as in (32), and *qann-a* ‘show’, as in (33).

(32) *ku lkx’ae ku xainki-a i*
 3H.SG tell 3H.SG mother-DAT DAT
 ‘He tells his mother.’ (NF060715-02_E.108)

(33) ... *nla ng qann-a a*
 ... PURP 1SG show-BEN 2SG.DAT
 ‘... so that I can show you!’ (NB041016-08_A.071)

One might argue that the examples above are in fact not examples of a valency alternation, but that we are dealing with instances of a transitive+dative frame where the object is expressed by zero-anaphora. While this is undoubtedly a very likely interpretation for many examples of clauses with the pattern SBJ V DAT, the cases presented in examples (32) and (33) are nevertheless regarded as examples of a valency alternation, because there is no clear contextually recoverable referent for an object expressed by zero-anaphora.⁵

⁵ One might further argue that in the example clauses there is zero-anaphora of a rather vague object, such as ‘He tells his mother what has happened earlier’, or ‘... that I can show you something, what I want to show you’. But then the same argumentation could also

4.1.5 DAT addition or deletion

In this alternation, the transitive frame alternates with the transitive+dative frame, as in (34), or the intransitive frame alternates with the dative frame, as in (35):

(34a) *ng lqx'ae kx'am*

1SG tell truth

'I tell the truth.' (NM091103-01_B.032; elicited)

(34b) *a si lqx'ae na #xoa*

2SG IRR tell 1SG.DAT matter

'You must tell me a story.' (NM081103-01_B_ditrans_BI.006c; elicited)

(35a) *a gluu*

2SG lie

'You lie!' (NG060718-02aA.169)

(35b) *... want ng llu gluu ba*

... because 1SG NEG lie 2PL.DAT

'... because I don't lie to you.' (NG071114-03_A.165)

There are, however, only very few clear examples for this alternation. With the verbs *lqx'ae* 'tell' and *gluu* 'lie', most speakers prefer to use the coded benefactive alternation (cf. Section 5.1) when a dative is present. Apart from these two verbs, all other verbs that have a basic coding frame transitive+dative end in the vowel *a*. Since the marker of the benefactive alternation is a verb suffix *-a*, it is impossible to decide whether these verbs in fact take part in the benefactive alternation, too, or whether they can take part in a valency alternation that is uncoded on the predicate and simply adds or removes the dative argument.

be applied almost without limits to many other alternations that affect the number of participants only (i.e. in examples where an S=A ambitransitive verb is used in an intransitive coding frame).

4.2 Argument-coding alternations

In this type of alternation, an argument can receive varying morphological coding without changing its semantic role. All other dependents remain unaffected by the alternation.

4.2.1 The OBJ⇔OBL alternation

The OBJ⇔OBL alternation is a productive mechanism to express partitive meaning with verbs that have a transitive basic coding frame, such as *hoo(-ke)* 'get' in (36):

(36a) *sa hoo-a mari*
1PL.EXCL get-PFV money
'We got money.' (NM080903-01bE.200)

(36b) *nllng#ee huniki hoo ng ki*
people all get OBL 3NH.SG
'Everybody gets some of it.' (here: '... a piece of cake') (NM071107-01_A.0802a)

A formally identical, but semantically different pattern is found with a small number of other verbs. These verbs normally take locational arguments (both proper and common nouns) as an object, but occasionally they are alternatively encoded in the oblique. Verbs for which this pattern is attested so far are *nllaa* 'stay, live', *l'hoa* 'settle, live', *soo* 'sit', and *suin / !'haun* 'sit down (SG/PL)'. All these verbs are also attested in the intransitive coding frame and thus also allow the S=A ambitransitive alternation (*soo* 'sit' and *suin / !'haun* 'sit down' regularly, *nllaa* 'stay, live' and marginally *l'hoa* 'settle, live'). It is thus again difficult to decide whether examples such as (37a–b) should be regarded as instances of the OBJ⇔OBL alternation, or whether we are dealing here with instances of the intransitive coding frame, which is extended by a locational adjunct.

(37a) *si l'hoa Ariemagom*

1PL.EXCL settle GN

'We live at Ariemagom.' (NM080903-01bE.003)

(37b) *ki a ke si xng ng l'hoa ng Klapin*

3NH.SG this TF 1PL.EXCL PST so settle OBL GN

'This is how we lived at Klapin.' (NM080903-01bE.146)

4.2.2 The OBL ⇄ COM/INS alternation

With verbs that allow this alternation, one and the same argument can be encoded as an oblique or alternatively as a comitative-instrumental. This alternation is attested for the verbs *kx'uu* 'make (X out of/from Y)' (38a–b), *#unn* 'fill' (X with Y), *n!ao* 'load' (X with Y), *#anu* 'cover (X with Y) / be covered (with X)', which all involve a substance or material-like argument, and for *hui* 'help (X with Y)'.

(38a) *#ia kx'uu !qam 'nllngke*

IP make porridge 3PL.OBL

'One makes porridge out of them (the seeds).' (NM071107-01_A.0239)

(38b) *#oo ke xng kx'uu-a nllng n!a !ao-ke*

man IS PST make-PFV house INS stone-PL

'The man built the house with stones.' (NF091018-01_B-VC_F.24; elicited)

4.3 The S=O ambitransitive alternation

In the S=O ambitransitive alternation, the subject of the intransitive coding frame corresponds to the object of the transitive coding frame, and the subject of the transitive coding frame is absent in the intransitive coding frame. This is attested in the data for only a few verbs, *viz.* *llhaa* 'break', *!xama* 'cook', *#unn(-a)* 'fill / get full', and *#hubi* 'burn', as in (39a–b).

(39a) *gla #hubi ki*

2SG.Q burn 3NH.SG

'Do you burn it (the candle)?' (NM081028-01_B-004c)

(39b) *dyoo #hubi*
skin burn
'The skin burns.' (NM071107-01_A.0391b)

5 Predicate-coded valency alternations

There are three valency alternations in Nllng which are coded in the predicate: the benefactive alternation, the causative alternation, and the directional serial verb alternation. All these alternations add an additional argument to the clause. They are frequently used in natural spoken discourse.

5.1 The benefactive alternation

In the benefactive alternation, a beneficiary is added as an additional argument. The beneficiary is encoded as a dative noun phrase, and the verb is marked with the benefactive suffix *-a*. Other arguments remain unaffected by the alternation. This typically results in a dative frame or a transitive+DAT frame. In our corpus of spoken discourse, the benefactive construction is most often found with the verb *kx'uu* 'make', as in (40), and a number of verbs used in contexts of serving food or drinks, such as *#haun* 'pour', *lluu* 'scoop', or *l'ee* 'put in'. In elicitation, the benefactive alternation can be applied productively to any other verb that does not have a dative argument in its basic coding frame (see e.g. 41).⁶

(40) *hng kx'uu-a l'huun-a nllaen*
3PL make-BEN Boer.PL-DAT blanket.PL
'They make blankets for the Boers.' (NM081007-01_E.075)

(41) *ng tsau-a a n#ona a*

⁶ For the elicitation of the benefactive construction, it was often necessary to construct some kind of context that involved a beneficiary. Frequently, the speakers' first choice to express the given situation was not a benefactive construction, but rather a paraphrase with multiple clauses. However, when the speakers were asked whether the benefactive construction could be used in these contexts, they generally accepted and repeated the benefactive construction without hesitation.

1SG sharpen-BEN 2SG.DAT knife this
 'I sharpen this knife for you.' (NM091102-01_B.015; elicited)

Güldemann (2013) has hypothesized for IXam, the closest attested relative of Nllng, that the cognate verb suffix *-a* derives by way of grammaticalization from a still attested verb *aa* 'give' (cf., e.g., Newman (1996: 211-23) for similar cases in other languages) which was formerly used in a serial verb construction of the root/nuclear serialization type (cf. Foley & Van Valin 1984). This proposal can be extended to Nllng whose Nluu dialect also still has the verb *aa* 'give'.

5.2 The causative alternation

In the causative alternation, a causative marker precedes the main verb of the clause. In the Nluu dialect of Nllng, causatives are expressed periphrastically by using the verb *kx'uu* 'do, make'; the causative construction is thus a transparent serial verb construction. In the other dialects, *kx'uu* 'do, make' can be used as well, but there is also an additional dedicated causative marker, */kx'ui*, which is more frequent than *kx'uu* 'do, make'. In the causative construction, a new participant, the causer, becomes the subject of the clause, whereas the causee, which is the subject of the underlying clause, becomes the object of the causative construction:

(42a) *kua* *o'ui'i*
 3SG.H be.sick
 'He is sick.' (NM080909-01_A.231)

(42b) *ha* *kx'uu* *o'ui'i* *ng*
 3SG make be.sick 1SG
 'It (the old age) makes me sick.' (NA060719-01_A.045)

In our corpus of naturally spoken discourse, the causative alternation is attested almost exclusively with intransitive verbs that express a state or a change of state (e.g. *o'ui'i* 'be sick', *haqa'i* 'be warm', *lxoo* 'grow, become big',

gauke 'become wet'); the causative alternation with verbs of other semantic types (e.g. *aan* 'eat' and *kx'aan* 'drink') is rarely attested. Furthermore, there are no non-elicited examples of the causative alternation based on transitive verbs or verbs with three arguments.

In elicitation, however, the causative alternation was applied productively to all kinds of intransitive verbs (e.g. *dyann* 'go'), whereas causative constructions derived from transitive verbs or verbs with three arguments were more problematic and showed considerable variation. Prompted constructions in which the direct object of a transitive verb was coded as an oblique object in the causative clause were generally accepted by the speakers, but such constructions were only rarely produced by the speakers themselves; an elicited example is given in (43).

- (43) *xainki ke kx'uu aan loba ng aan-ki*
mother IS make eat child OBL eat-NOM
'The mother makes the child eat the food.' (elicited)

In the majority of cases, speakers tended to avoid the causative construction as an alternation for transitive verbs and used a different verb (e.g., 'X give Z to Y' instead of 'X CAUS eat Y OBL+Z') or a construction with a purposive clause ('X make PURP Y eat Z' = 'X makes that Y eats Z') instead.

Alternatively, they used the causative construction with a quite unusual coding frame, notably intransitive+DAT+OBL, as in (44); this coding frame is not attested as a regular coding frame for any verb.

- (44) *kinn xainki ke kx'uu aan kinn-a i ng aan-ki*
3PL mother IS make eat 3PL-DAT DAT OBL eat-NOM
'Their mother feeds them with food.' (NF081128-01_B_ditrans.014e; elicited)

The causative construction was also accepted and could be elicited for verbs with the coding frames intransitive+comitative/instrumental and transitive+comitative/instrumental (45). When present, the oblique argument

precedes the COM/INS argument. Note that the causative constructions with a COM/INS argument can be ambiguous: Depending on the context, the instrument introduced by *n/a* in (46) can be used by either the causer or the causee.

(45) *ku ke kx'uu lhaa ng ng #hunn n/a n#ona*
 3H.SG IS make kill 1SG OBL dog INS knife
 'He makes me kill the dog with a knife.'

(46) *xainki ke kx'uu aan loba n/a glloa*
 mother IS make eat child INS spoon
 'The mother makes the child eat with a spoon.'

or: 'The mother feeds the child with a spoon.' (elicited)

The causative alternation cannot be applied to clauses with the coding frames transitive+dative and transitive+oblique.

5.3 *The directional serial verb alternation*

Serial verb constructions are a salient feature of Nilng. They are generally asymmetrical and contiguous (as defined in Aikhenvald 2006). These constructions do not necessarily change valency, that is, they can have the same coding frame as their major verb. Nevertheless, they can be – and often are – used to introduce additional participants. The minor verb of such a serial verb construction is frequently a directional motion verb (e.g. *saa* 'come', *l'aa* 'go away, go to', *l'ee* 'go in') or a verb of physical transfer (e.g. *llhau* 'remove', *l'ee* 'put in'), therefore we name it this alternation *directional serial verb alternation*. The additional argument is generally a goal or source in a broad sense of the terms; this includes for example animate sources and goals, such as recipients, beneficiaries, and maleficiaries in actions of physical transfer.

Directional serial verb constructions that change valency can be classified into two subtypes. In the first one, the intransitive coding frame of the major verb

alternates with the transitive coding frame in the corresponding serial verb pattern, as in (47): SBJ V => SBJ V V_{directional} OBJ.

(47a) *kinn #qaan*

3PL move

'They move (from one location to another).' (NE060715-01cA.011)

(47b) *gloe #qaan ll'ae Ou Naan Bekker*

again move go.to old PN

'(He) moves again to old Naan Bekker.' (NM080903-01bE.159)

(47c) *hng #qaan xuu Aremagam*

3PL move leave GN

'They move away from Ariemagam.' (NM080903-01bE.008a)

Second, the transitive coding frame of the major verb alone alternates with the transitive+oblique coding frame in the corresponding serial verb pattern, as in (48): SBJ V OBJ => SBJ V V_{directional} OBJ OBL.

(48a) *a #ae !khaa*

2SG pull water

'You pull water (e.g. out of a borehole).' (NM071213-01_A.0338b)

(48b) *#ae l'ee tya kuni-si ng wanis*

pull put.in that cart-SG OBLcart.shed

'(They) pull the cart into the cart shed.' (NC080903-01_A.164)

6 Are there basic valency classes in NlIng?

As can be expected of a predominantly isolating language, NlIng is poor in dedicated valency changing morphology. The most important overt mechanisms to change valency are analytic constructions, in particular serial verb constructions, which are very productive and, with only few exceptions, semantically transparent. Only two dedicated valency changing grams have been found so far: The causative marker *!kx'ui* in the eastern dialects, which is structurally analogous to and often interchangeable with a serial verb

construction based on *kx'uu* 'do, make', and the benefactive suffix *-a*, which might also be derived historically from a serial verb construction and is often optional.

Apart from these overt valency changing mechanisms, many verbs can occur in more than one coding frame without any overt marking of valency change. This raises the question whether verbs in NlIng have something like a basic coding frame at all, or whether a coding frame is simply assigned by the context in which a verb is used. In particular, if one looks at verbs which alternate between taking one or two arguments, there are in principle three logical possibilities in terms of grammaticalized valency classes: (1) the verb is basically intransitive but can be used transitively under certain conditions, (2) it is basically transitive but can be used intransitively under certain conditions, and (3) it is genuinely S=A ambitransitive. Alternatively, one abandons the idea of strict valency classes and assumes that all such verbs are labile or ambitransitive.

To explore this alternative, we carried out an analysis of the available spoken discourse corpus. To start with, we compiled a list of relatively frequent verbs which we regarded as good candidates for being a member of any of the above three possible verb classes. This yielded 34 verbs which are given in Figure 1. We then determined the coding frame for all tokens of each verb in the corpus.

If a coding frame was neither intransitive nor transitive, the token was excluded from the analysis, but such tokens were relatively rare with the verbs that we had chosen. To differentiate between tokens with intransitive coding frames and clauses with zero-anaphora, we considered the linguistic and non-linguistic context of each clause. If a clause had no overt object, but a possible referent for an object was clearly identifiable from the context, the token was regarded as having a transitive coding frame.

Figure 1 shows the proportion of transitive coding frames for each verb type. Unfortunately, the number of tokens for ten out of the 34 verbs used in the study (including 'die' and 'be.dry') was lower than ten (light gray bars indicate verbs with ≤ 5 tokens, mid grey bars indicate verbs with ≤ 10 tokens, dark grey bars indicate verbs with > 10 tokens).

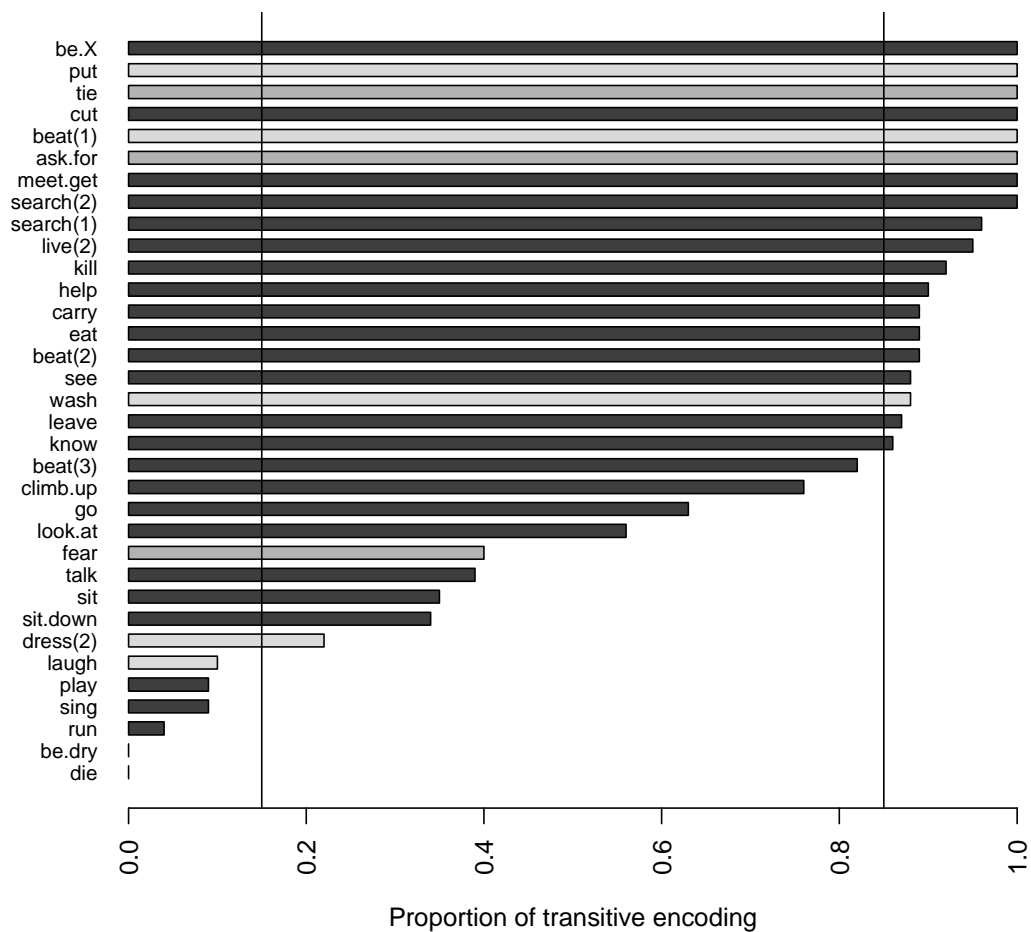


Figure 1: Ratios of transitive tokens for 34 verbs used in the corpus study

As can be expected, verbs display considerable differences in their transitive-intransitive ratio. Only two verbs are exclusively attested in the intransitive coding frame, viz. *'aa* 'die', and *lloo(-a)* 'be dry'. Eight verbs are exclusively attested in the transitive coding frame, viz. *l_{aa}'a / l_{aa}'in* 'search (2)', *hoo* 'get, meet', *!'hoe'a / !'hoe'in* 'ask for', *#au* 'beat (1)', *laa* 'cut', *l'ngke* 'tie', *lhoo* 'put (down, aside)', and the copula *ng* 'be X'. The remaining 24 verbs occurred in both frames.

Nevertheless, the overall profile of individual transitive-intransitive token ratios is not entirely random. We assume that the verbs can indeed be grouped into three clusters. There are two clusters with verbs which have at least 85% of all their tokens in either the intransitive or the transitive coding frame. These two clusters can be labeled as 'predominantly intransitive verbs' (*!'aa* 'die',

lloo(-a) 'be dry', *!ae* 'run', *#eeke* 'sing', *(ka) !kx'ora* 'play', and *kx'ain'a / kx'ain'in* 'laugh'), and 'predominantly transitive verbs' (*llxae(-a)* 'know', *xuu* 'leave', *llkx'am* 'wash', *nlaa / nlai* 'see', *lkx'ai(-ke)* 'beat (2)', *aan / ain* 'eat', *!xau* 'carry', *hui* 'help', *lhaa / lhai* 'kill', *!'hoa* 'live, settle (2)', *#xaqake* 'search (1), want', *llaa'a / llaa'in* 'search (2)', *hoo* 'meet, get', *!'hoe'a / !'hoe'in* 'ask for', *#au* 'beat (1)', *laa* 'cut', *ll'ngke* 'tie', *llhoo* 'put (down, aside)', *ng* 'be X').

Another cluster is formed by verbs that occur equally frequently in both coding frames: There are six verbs (*suin* (SG), *!'haun* (PL) 'sit down', *soo* 'sit', *#xoa* 'talk', *!auka* 'fear', *#aqe* 'look at', *ll'aa / ll'ae* 'go') with only two thirds or less of their tokens in the more frequent coding frame, whereas at least one third of the tokens occurs in the less frequent coding frame. This cluster can be labeled as 'S=A ambitransitive verbs'.

Only three out of the 34 verbs (*nllaa* 'dress (2)', *llain* 'climb up', *#am'a / #am'in* 'beat (3)') investigated in our study do not clearly fall in any of these three clusters or verb classes. Two of these verbs (*nllaa* 'dress (2)', and *#am'a / #am'in* 'beat (3)') are among the group with a low token number; with more data available, these might well turn out to fall into one of the three classes proposed here.

In general, a large majority of verbs clearly falls into one of the three proposed verb classes; at the same time, it is not the case that members of the two verb classes 'predominantly transitive' and 'predominantly intransitive' occur exclusively in either of the two coding frames, despite clear semantically based expectations.

It should be noted that the aim of our study was not to ultimately assign every single verb to a given verb class, or to establish rigid verb classes defined by a somewhat randomly chosen percentage of intransitive or transitive tokens. The main purpose of the token analysis based on the spoken discourse corpus was a more general one, namely to find out if the concept of verb classes based on valency patterns is at all useful in Nilng. We conclude that this concept is indeed useful despite the considerable variation across the verb lexicon.

The observation that most verbs which semantically are expected to be transitive or intransitive nevertheless display tokens in the opposite frame is

particularly interesting and throws light on how the assignment of a verb to a particular valency class could be conceptualized, namely as the cognitively internalized relative frequency of a lexeme in different constructions that can change over time. That is, as soon as linguistic and non-linguistic factors favor a different coding frame, a semantically salient pattern and its coding frame can be abandoned. If such contexts increase in frequency, even a shift in class assignment is possible. Thus, one should even expect the existence of verb lexemes which at a certain point in time are on their way to being transferred in language use from one class to another.

The conditions under which such verbs are used in a non-canonical coding frame merits more detailed investigation in the future. Some tentative observations can, however, be made already.

One pattern is, for example, that predominantly intransitive verbs like *!ae* 'run' (49), *#eeke* 'sing' (50), or *!kx'ora* 'play' (51) can take an object which is generally or contextually inherent:

(49) *si !ae reisies*
1PL.EXCL run race
'We run a race.' (NM071214-01bA.236)

(50) *na #heeke !'ui*
1SG sing traditional.song
'I sing the *!'ui* (a traditional song).' (NE091126-02_B-VC_E.58c;
elicited)

(51) *sau !kx'ora koro*
1PL.EXCL play jackal
'We play (at being a) jackal.' (NM071214-01bA.274)

A second, partly inverse pattern is shown by such predominantly transitive verbs as *!haa / !hai* 'kill' and *#aqake* 'search' which occur in the intransitive coding frame in contexts where there is no clearly identifiable object, so that zero-anaphora cannot be invoked. Nevertheless, the recognition of the

cultural background of NlIng speakers, namely their earlier foraging subsistence, offers a plausible explanation why particularly these two verbs show this behavior. Customary world knowledge provides inherent objects which, when non-referential, need not be expressed verbally: hunted animals (for 'kill') and gathered wild plants (for 'search') were both essential in the traditional economy as food and raw material.

Finally, another group of predominantly transitive verbs, as *nlaa* / *nlai* 'see' in (52) and (53), *xuu* 'leave' in (54), and *llxaea* 'know' in (55), are used in the intransitive coding frame in fixed conversational routines – often commands or questions – which are frequently used in face-to-face interaction:

(52) *gla nlai?*

2SG.Q see

'Do you see?' (NM071109-01aA.197)

(53) *nlaa!*

see.2SG.IMP

'Look/Pay attention!' (NM071022-01aA.247)

(54) *xuu-a!*

leave-2SG.IMP

'Leave (me, it etc.) alone!'; 'leave it'; 'don't do that!' (NA081008-01_A.045)

(55) *ng llu llxaea*

1SG NEG know

'I don't know.' (NM071022-01aA.331a)

It can, of course, be entertained here that zero-anaphora is involved in so far as contextually recoverable information available at least to the speaker represents the missing argument. This is, however, not obvious in a number of contexts: thus, *xuu* 'leave X' in (54) is ambiguous with respect to the implied object, as seen in the alternative translations; a phrase like 'I don't

know' in (55) might just convey 'I am not sure' without referring to any specific object; etc. In any case, the frequent use of the verbs in such contexts might well become a triggering factor for routinely associating the verb with a new coding frame and thus blurring its exclusive association with its original one. To sum up, with the above analysis, we tried to show that, even though most Nllng verbs can be used in more than one coding frame without any overt marking of valency change, many verbs indeed have a basic coding frame, but alternative coding frames are generally possible under certain conditions. The exact factors under which a deviation from the basic coding frame is possible still have to be investigated in more detail, but it is obvious that both the linguistic and the extra-linguistic context, as well as pragmatic factors, must be taken into account. It is thus almost impossible, at least with a corpus the size of ours, to determine all possible valency patterns for any given verb, or all contexts under which a verb can be used in other than its basic coding frame(s).

There is evidence for verb classes based on valency in Nllng, at least for verbs which take generally one or two arguments, and thus most likely also for verbs with three arguments. Nevertheless, the assignment of a verb to a certain verb class does not mean that no other coding frame is possible. It only says that some verbs have a clear tendency to occur in one coding frame, whereas other verbs have no single basic coding frame, but occur in different coding frames regularly.

7 Grammatical relations, coding frames, valency alternations and semantics

Case marking, like other types of flagging, is generally regarded as having two functions: the discriminating function (i.e. to distinguish between the core arguments), and the indexing function (i.e. to encode semantic roles) (Comrie 1989: 124-127). In Nllng, this generalization can be extended to the marking of all dependents, regardless of whether they are arguments or adjuncts.

There are, of course, cases of differing coding frames for superficially similar verbs that are not obviously predicted by semantics. For example, depending

on the verb that is used, the addressee in an act of speaking can be encoded as OBL (*ku* 'say (to)'), as DAT (*/kx'ae(-a)* 'tell'), or COM/INS (*#xoa* 'speak (with)'). Cases like this do not necessarily challenge the fact that coding frames and valency alternations in general have a strong semantic basis. In Nilng, the three morphologically unmarked grammatical relations interact and produce the following semantic profiles: the SBJ is the most agent-like participant, the OBJ is the most patient- or theme-like argument, and the OBL is a participant which is neither agent nor patient/theme-like. Beyond this, the semantic roles of SBJ, OBJ and OBL are not further specified and can only be inferred from the lexical specifications of the verb they are used with. The three coding frames involving these grammatical relations (viz. intransitive, transitive, and transitive+oblique) can therefore be seen as the most general, default coding frames of Nilng.

On the other hand, Nilng has two dependent markers with a strong semantic basis: DAT is used to encode beneficiaries or recipients (which are in general human, or at least animate), and COM/INS is typically used to encode companions and instruments. Whenever clausal dependents with these semantic roles are involved, they tend to be encoded by these dedicated markers.⁷

Both DAT- and COM/INS-marked dependents can be quite freely added to almost any clause, provided that the semantics of the event allows it.

However, while COM/INS-dependents can be added without any marking of valency alternation on the predicate, the addition of a DAT-dependent often requires additional marking (the BEN marker) on the predicate.

The Nilng dependent marking system as described above allows one to predict the possible coding frames and valency alternations for most verbs.

There are, however, some deviations from this basic system, and the reasons for these deviations can often be found in the fact that the semantic properties of a dependent are less prototypical, and/or that a dependent has semantic

⁷ Indeed, across the Tuu family one can identify an implicational hierarchy of semantically dedicated flagging. All languages possess a multi-purpose OBL marker. As soon as a language has more overt encoding of dependents, this is first a COM/INS and then a DAT.

properties typical for another type of dependent. This is often associated with a different conceptualization of the event. In the following we will show that this is the reason for some valency alternations in Nllng, especially those that involve different marking options for a participant.

As stated above, two-argument constructions are generally encoded in the transitive coding frame (unless the second argument is a semantically more restricted COM/INS or a DAT argument). There are, however, two-argument constructions that have the oblique coding frame. With only one exception, this coding frame is only an alternative coding frame of a (mostly more basic) intransitive or transitive frame; in the latter case we are dealing with an OBJ \leftrightarrow OBL alternation.

As proposed above, deviations from the default marking can be explained by less prototypical semantic features of a dependent. This holds, for example, for verbs that allow the OBJ \leftrightarrow OBL alternation involving a partitive meaning. The encoding of partitive objects (or patients) with an oblique case is well known from other languages, and this is in general explained by a lower transitivity of the event, caused by the lower affectedness and therefore less prototypical semantic nature of the patient (which is generally described as prototypically fully or strongly affected).

With other verbs allowing the OBJ \leftrightarrow OBL alternation without inducing a partitive meaning, the second argument also has less prototypical patient properties as well as properties typical for non-patient arguments. For example, some verbs like 'sit (on)', 'sit down (on)', 'settle (at)', 'stay (at)' have a non-subject argument which can be seen as an affected, and therefore patient-like argument, or as a location (or sometimes also as a goal). While the more patient-like argument of a two-argument construction is by default encoded as an OBJ, locations are typically adjuncts, which can be freely added to any clause and are by default encoded as the OBL.

The second argument of some other verbs such as 'fear, be afraid (of)' and 'laugh' can be regarded as either a stimulus (patient-like, and therefore OBJ) or a cause/source (adjunct-like, and therefore OBL). This different conceptualization might explain why such verbs also allow the OBJ \leftrightarrow OBL alternation.

Similarly, cases of OBL ↔ COM/INS alternations can also be partly explained by less prototypical or conflicting semantics of an argument. Verbs that allow this alternation often involve a material or substance-like argument. As mentioned above, companions (accompaniment) and instruments are encoded in the COM/INS, whereas the OBL is used to encode all other non-agent and non-patient-like arguments and adjuncts (except beneficiaries and recipients which are in the DAT). On the one hand, material or substance participants can be regarded as not falling semantically under the meaning of the COM/INS, and they must thus be encoded in the default, semantically unspecified OBL. On the other hand, materials and substances have semantic properties similar to those of instruments: For example, events involving instruments and events involving materials or substances can often be expressed by “use X to do Y”. Therefore, the function of the COM/INS is likely to be extended to include materials and substances, and this is what happens in Nllng.

Similar phenomena can be encountered with three-argument clause patterns. One case is the well known spray/load-alternation. Examples (56c–e) could all be seen as alternations deriving from an increase in the number of syntactically realized arguments by adding an OBL or COM/INS argument to the transitive frame, as given in (56a–b). Alternatively, the pattern can be viewed as having three arguments in which the postverbal constituents can be exchanged depending on their semantic profile. In fact, since Anderson (1971) and Fillmore (1971: 386) it has been argued that the alternative patterns involve partly different conceptualizations of the event. In (56c), ‘the tamma melons’ is regarded as the fully affected, hence more patient-like argument (=OBJ), and ‘the cart’ as a location- or goal-like argument (=OBL). In (56d–e), ‘the cart’ can be imagined to be completely filled, hence a better patient-like OBJ, and ‘the tamma melons’/‘the grass’ as substance in the mould of an OBL or COM/INS.

(56a) *ku* *n!ao* *ka* *peer-ke-si*
 3H.SG load PL pear-PL-LN

‘He loads (his) pears (e.g. onto a cart).’ (NA060622-01_A.040)

- (56b) *ha n!ao kuni-si*
 3SG load cart-SG
 ‘He loads the cart (e.g. with pears).’ (NC090930-01_A.020)
- (56c) *#oo n!ao #au ng kuni-si*
 man load tsamma.melon OBL cart-SG
 ‘The man loads (the) tsamma melons onto a/the cart.’ (NC091127-01_B-VC.03; elicited)
- (56d) *#oo n!ao kuni-si ng #au*
 man load cart-SG OBL tsamma.melon
 ‘The man loads a/the cart with (the) tsamma melons.’ (NC091127-01_B-VC.03; elicited)
- (56e) *#oo ke n!ao kunisi nla lhee*
 man IS load cart-SG INS grass
 ‘The man loads the cart with grass.’ (NE091126-02_B-VC_E.03b)

Another case of alternations with three arguments concerns verbs like *lae* ‘send’. Depending on whether the third, goal-like participant is regarded as beneficiary (or recipient) or location (or goal), it can be encoded as DAT or OBL, respectively. In the first case with DAT, the predicate can be unmarked, as in (57a) - this is an addition of an argument only; but more often it is marked with the BEN marker, as in (57b), thus involving the benefactive alternation.⁸

- (57a) *si lae ba #xani-si*
 1PL.E send 2PL.DAT letter-SG
 ‘The man will send the child a letter.’ (NM081103-01_B_ditrans_BI.009a; elicited)
- (57b) *na si lae-a ma i #xani-si*
 1SG IRR send-BEN 2PL.DAT DAT letter-SG

⁸ The use or non-use of the benefactive marker depends strongly on the verb. For most verbs (e.g. ‘throw’), it is generally used, but with some verbs (e.g. ‘send’) is often absent. These are, however, only preferences, and one and the same speaker can vary between using the benefactive marker with a certain verb or not.

'I will send you a letter.' (NF081128-01_B_ditrans.009b; elicited)

In the second case (with OBL), a directional serial verb construction is often used to add the goal-like participant (directional serial verb alternation), as in (58a), but again, there are cases where the goal like participant is just added without any coding in the predicate, as in (58b).⁹

(58a) *na lae ll'ae u ng glari*

1SG send go.to 2PL OBL town

'I send you to town.' (NC081204-01_B_ditrans.009b; elicited)

(58b) *na lae u ng glari*

1SG send 2PL OBL town

'I send you to town.' (NC081204-01_B_ditrans.009a; elicited)

Note that the DAT encoding is only possible with animate arguments, but not with (inanimate) locations. However, an animate argument does not have to be encoded in the DAT, as (59) shows.

(59) *loba ke lae ll'aa boek-si ng #oo*

child IS send go.to book-SG OBL man

'The child sends the book to the man.' (NE091126-02_B-VC_E.10; elicited)

Overall, locative dependents which include the expression of location, goal, source and path are probably the most diverse semantic roles with regard to dependent marking and valency alternations in Nilng. As already mentioned, locations are very often adjuncts (and thus encoded in the OBL), but there are also cases where locations can be regarded as patient-like arguments, which often allows them to be encoded either as OBJ or as OBL (cf. Section 7.2 on the OBJ⇔OBL alternation). However, locations as OBJ are only possible

⁹ The use or non-use of the directional serial verb alternation shows exactly the same preferences as described in the preceding footnote.

when there is no other patient-like argument involved.

Goal-like arguments have a greater tendency to be encoded as OBJ than locations. Only a few verbs can take a goal argument. The directional motion verb *//'aa / //'ae* 'go away (intrans.), go to (trans.)' always takes its goal argument as an OBJ, and its counterpart *see / sii / saa* 'come (to)' has a very strong preference to encode its goal as OBJ, too, though there are a few examples with OBL goals. The verb */'ee* 'go in/put in' always takes its goal argument as OBJ when used as a verb of directed motion ('go in'), but when used as a verb of transfer ('put in'), it takes a theme argument which is encoded as OBJ, and therefore the goal must be in the OBL. Other verbs like *//hoo* 'put down' always involve a more theme-like argument as OBJ so that the goal is invariably encoded as OBL.

Source arguments are more likely to be encoded as OBL than as OBJ. It is interesting to note that the verb *hoo(-ke)* 'come from' is the only verb that has the oblique frame as its only possible basic coding frame. Other motion verbs with source-like arguments, e.g. *//hoe* 'climb down, go down, descend' and *//'ng* 'go out, exit' allow the OBJ↔OBL alternation, but they show a strong preference for the goal to be encoded as OBL. Again, examples of a source-like argument encoded as OBL are cases where the source-like argument can alternatively be seen as an (affected) patient (or also as a path-like)¹⁰ argument, or as an unaffected source argument or adjunct (cf. e.g. *//hoe n!oon* (descend dune) 'go down the dune' vs. *//hoe ng #'hii* (descend OBL tree) 'climb down the tree', and therefore both OBJ and OBL encoding is possible. To sum up, goal-like arguments can be regarded as more strongly affected by an action or event than locations and sources. Therefore, goal-like arguments are encoded as OBJ unless some other, more patient or theme-like argument is present. Location and source arguments are most typically unaffected by an action or event and therefore they are generally encoded as OBL. There are, however, cases where location or source-like arguments are encoded as OBJ. It needs to be investigated whether in these cases they can be seen as

¹⁰ The behavior of path participants still needs further investigation. It could, however, be assumed that path participants are more affected by an action or event than source participants.

more affected by the action or event.

It should be noted that only a handful of verbs can take locative arguments without overt marking in the predicate (cf. Section 4.2.1), but clausal dependents specifying location can be added as adjuncts to almost any clause. The expression of goal and source for other verbs usually requires the use of a serial verb construction involving the directional serial verb alternation (see Section 5.3), with a minor verb that comes from this small and closed class of verbs that can take a goal or source argument. In these cases, the coding of the goal or source argument depends on the minor verb and follows the same rules that have been described for these verbs in Section 5.3.

The discussion above has shown that, even though Nlɪŋg has only a very small number of semantically specified dependent types, dependent marking and valency alternations have a strong semantic basis which provides a certain amount of predictive power regarding possible coding frames and valency alternations.

To conclude the discussion, one should, however, not underestimate factors potentially impacting on the coding profile of verbs, which we have not yet investigated, viz. factors beyond semantics (and always possible idiosyncratic lexical collocations). One of them is information structure, particularly in cases where grammatical relations distinguished by their syntactic position overlap with respect to the range of semantic roles they can encode. Obvious candidates would be cases where two postverbal dependents can exchange their coding position, for example, between the OBJ and OBL. Thus, one needs to test the idea that some cases discussed above are not only distinct semantically but also due to the context-specific information-structural import of their relevant constituents (cf., e.g., (56)). Another factor which is parallel in this regard would be a difference of dependents relating to the wider empathy hierarchy, including the feature of animacy (cf., e.g., (57)–(59)).

Another quite different factor presumably influencing the valency behavior of verbs would be language contact. This is particularly relevant for Nlɪŋg in that its current speakers are heavily influenced by Afrikaans for the reasons mentioned in Section 1. Hence it cannot be excluded that some of the

features documented above are patterned according to the behavior of the semantic counterparts in Afrikaans. This possibility might be supported by the admittedly impressionistic observation that genealogically related languages of the Tuu family have a partly different profile regarding grammatical relations and the valency behavior of their verbs. A detailed investigation of this problem remains a topic for future research.

Abbreviations

ADJ - adjunct; BEN – benefactive; COM/INS – comitative/instrumental; DAT – dative; EXCL – exclusive; GN – geographical name; H – human; IMP – imperative; IP – impersonal; INCL – inclusive; IRR – irrealis; IS – information structure; LN – loan noun; NH – non-human; OBL – multi-purpose oblique; OBJ – object; PFV – perfective; PL – plural; PN – personal name; PROH – prohibitive; PURP – purposive; PST – past; Q – question; SBJ – subject; SG – singular; SIM – similitive; TF – term focus

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Appendix: Valency classes in NlIng

Numbers for alternation types: 1 OBL addition or deletion, 2 OBJ⇔OBL alternation, 3 DAT⇔OBL alternation, 4 COM/INS addition or deletion, 5 S=A ambitransitive alternation, 6 S=O ambitransitive alternation, 7 directional serial verb alternation, 8 causative alternation

Verb	Meaning	Basic coding frame	Common alternations
(ka) !qora	play	SBJ V	1, 5
(khinn) l'huu	feel cold	SBJ V OBJ or SBJ V	2
aa	give	SBJ V IO OBJ	2
aan / ain	eat	SBJ V OBJ	5, 2
gaake	steal	SBJ V OBJ	5, 2
hoo	meet	SBJ V OBJ	2
hoo	receive, get	SBJ V OBJ	1, 2
hui	help	SBJ V OBJ	1, 4

kadyama	show	SBJ V IO OBJ	
khinn llqann	be hungry	SBJ V OBJ	
ku	say	SBJ V (OBL) Clause	1
kx'aa	cry	SBJ V	8
kx'ain'a	laugh	SBJ V	8
kx'uu	make	SBJ V OBJ	1, 4
ng	be X	SBJ V OBJ	
nlaa / nlai	see	SBJ V OBJ	8
nllaa (1)	dress (2)	SBJ V OBJ	5
nllaa (2)	live (1)	SBJ V OBJ	2, 5, 8
n!ao	load	SBJ V OBJ OBL	1, 2
qann(-ya)	show	SBJ V IO OBJ	
soo	sit	SBJ V	5
suin (SG), !'haun (PL)	sit down	SBJ V OBJ	2, 5, 8
ttaa	give, bring	SBJ V IO OBJ	7
ts'aan'a	like	SBJ V OBJ	2, 8
tyuu	hear	SBJ V OBJ	2, 5, 8
tyxaa	tear	SBJ V OBJ	7, 8
xuu	leave	SBJ V OBJ	5, 8
laa	cut	SBJ V OBJ	4
lae	send	SBJ V IO OBJ	7
lai	take	SBJ V OBJ	2, 7
lhaa	kill	SBJ V OBJ	
lhunn	follow	SBJ V OBJ	8
lkx'ae	tell	SBJ V IO OBJ	
lkx'aike	beat/hit (2)	SBJ V OBJ	4, 8
luun	boil	SBJ V OBJ	6, 7
l'aa	die	SBJ V	8
l'hoa	live (2)	SBJ V OBJ	2, 8
l'hoo (llhoo), l'oo (kiin)	hide	SBJ V OBJ	8
llaan'a	search for (2)	SBJ V OBJ	5, 8
llain	climb	SBJ V OBJ	2, 5, 8

llhaa	break	SBJ V OBJ	2, 4, 6, 7, 8
llhoo	put	SBJ V OBJ	1, 8
llkx'am	wash	SBJ V OBJ	5, 8
lloo(-a)	be dry	SBJ V OBJ	6, 8
llxae(-a)	know	SBJ V OBJ	
ll'aa	go	SBJ V OBJ	5, 8
ll'au	dig	SBJ V OBJ	5, 7, 8
ll'hoqo	cough	SBJ V	5, 7, 8
ll'ngke	tie	SBJ V OBJ OBL	1, 8
ʈaasinn	dress (1)	SBJ V OBJ	1
ʈam'a	beat/hit (3)	SBJ V OBJ	4, 5, 8
ʈanu	cover	SBJ V OBJ	1, 4, 6, 8
ʈao(-a)	want	SBJ V OBJ	8
ʈaqbeke	throw	SBJ V OBJ OBL	1, 3, 8
ʈaqe	look at	SBJ V OBJ	5, 8
ʈau	beat/hit (1)	SBJ V OBJ	
ʈeeke	sing	SBJ V	5, 8
ʈhau	rain	SBJ V	8
ʈhaun	pour	SBJ V OBJ	1, 7, 8
ʈkhuun	jump	SBJ V	7, 8
ʈqau	fall	SBJ V	1, 5, 8
ʈunn	fill	SBJ V OBJ	1, 4, 6, 8
ʈxaike	grind	SBJ V OBJ	4, 5, 8
ʈxaqake	search for (1), want	SBJ V OBJ	5, 8
ʈ'ainke	think	SBJ V Clause	5, 8
ʈ'aoke	cover	SBJ V OBJ	4, 8
ʈ'haqa (ll'aa)	push	SBJ V OBJ	7, 8
ʈ'hubi	burn	SBJ V	1, 6, 7, 8
!ae	run	SBJ V	5, 7, 8
!auka	fear	SBJ V OBJBL	1, 2, 8
!qhao	smell	SBJ V OBJ	1, 5, 8

!xama	cook	SBJ V OBJ	5, 6, 8
!xau	carry	SBJ V OBJ	7, 8
!'hoe'a	ask for	SBJ V OBJ OBL	1, 8
o'ui'i	be ill	SBJ V	5