CHAPTER 3

INTRA-CLAUSAL FACTORS

3.0 Introduction

This chapter contains a discussion of stem determining factors within a clause. The main constructions examined at this level are nominalization, relativization, and valence changes. Stem choice in nominalization constructions are discussed in 3.1. Stem choice in relative clauses and valence changes are discussed in 3.2 and 3.3 respectively.

3.1 Interaction of verb stem and argument types in nominalization

This section looks into stem choice in argument nominalization and action nominalization. In argument nominalization, there is a straightforward correlation between argument type and the stem choice. Subject argument nominalization calls for stem I, while non-subject argument nominalization such as instrument, and location, on the other hand, select stem II. Further, stem II is always used in action nominalization. Now, we will turn to discussion on each type of nominalization.

3.1.1 Subject nominalization and verb stem choice

Subject argument nominalization consists of two main types: one with overt subject argument and another without overt subject argument. In either case, the verb involved in the construction is always stem I.

3.1.1.1 Nominalization with overt subject argument

Normally, intransitive verbs are nominalized along with their subject arguments as shown in (18a)-(21a).

(18)a. *Ng'ai-**k'kài***
crab-k.climb.I
climbing crab

b. **Ng'ai-**kai***
crab-climb.II

(19)a. *ui-**k'shì***
dog-k.die.I
dead dog

b. **ui-**shih***
dog-die.II

(20)a. *gà-**k'kyǜ***
enemy-be.scared.I
coward enemy

b. **gà- **kyüh***
enemy-be.scared.II

(21)a. *Khaan-**k'yòòng** k'khá*
sky-k.fly.I bird
sky-flying bird

b. **Khaan-**yoon** k'khá*
sky-fly.II bird

In (18a)-(21a), the verbs *kài* 'climb', *shi* 'die', and *kyǜ* 'be afraid' collocate with their syntactic subjects. In (21a), the predicate (the verb and location) precedes the subject argument. This kind of construction will be called subject nominalization. Subject nominalization uniformly requires stem I as shown in (18a)-(21a). Stem II form is not acceptable as can be seen by the ungrammaticality of (b) examples.[21]

The verbal elements in these constructions correspond to attributives in English. Jordan (1969: Grammar p.7) calls the verbs in these constructions in *K'Chò* 'attributive verbs'. Lehman (1975:27-35) also calls them 'contracted relative clauses'. They can be indeed paraphrased into relative clauses as in (22).

[21] Verbs in this kind of construction acquire the glottal prefix /k-/ as seen in (18)-(21)a. Their finite stem I forms do not have the prefix /k-/ as in (22). The occurrence of the prefix seems to suggest that the analysis of stem I form in this particular construction as the case of nominalization is correct. Verb with inherent initial glottal /k-/, nasal /m-/, and /ng-/ morphemes do not change. e.g. *Tui-ng'ling* 'hot water'

(22)a. ***Kài**-ci* *ah* *ng'ai*
climb.I-NF REL crab
the crab that climbs/climbed

b. ***Shì**-ci* *ah* *ui*
die.I-NF REL dog
the dog that died

c. ***Kyǜ**-ci* *ah* *gà*
be.scared.I-NF REL enemy
the enemy that is coward

d. *Khaan ah* ***yòòng**-ci* *ah* *k'khá*
sky at fly.I-NF REL bird
bird that flies/flew in the sky.

However, the constructions in (18a)-(21a) are assumed as nominalization constructions in this thesis.

In summary, intransitive subject nominalizations with overt syntactic subject uses stem I[22]. In the following section, we will continue to examine nominalization of verbs without overt subjects.

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[22] There is a group of a few *K'Chò* verbs, which use a form peculiar to them in this type of construction. Nolan (2003) calls them stem III.

a. *Shin* *ah* *k'chààng* ***ni**(k)-ci.*
This PART man be.good.I-F
This man is good.

b. *Shin* *ah* *k'chààng* *a-ni**i*** *ung*
this PART man 3SG.SBJ-be.good.II PART
If this man was/is good,

c. *Shin* *ah* *k'chààng-**k'ní***
this PART man-k-be.good.III
This good man

The stem I form of the verb *ni* 'good' in (a) is an open syllable with short vowel, while its stem II has long vowel *nii* as shown in (b). Both stem I and stem II are high tone. The stem in subject nominalization in (c) differs from both stem I and stem II forms in (a) and (b). It has a rising tone *k'ní*. There exist a few verbs which exhibit three distinct forms as such in *K'Chò*. Further research is necessary to determine the full nature this verb class.

3.1.1.2 Nominalization without overt subject argument

In another type of subject argument nominalization, the subject argument itself is omitted. The verb phrase or the predicate represents its syntactic subject argument. The construction in (21a) can occur without the subject argument *k'khá* 'bird' as in (23a).

(23)a. *Khaan-**k'yòòng***
sky-fly.**I**
sky-flying (one) or sky-flyer

b. **Khaan-**yoon***
sky-fly.**II**

In such subject nominalization in which the subject argument is not overtly present, the predicate represents the subject argument. In (23a), the verb *yòòng* 'fly' and the location word *khaan* 'above or sky' together refer to the entity that flies. The phrase thus means 'someone or something that "verbs" in the given location'. In other words, the phrase refers to the subject argument of the verbal element in the phrase, which is not overtly present in the phrase. Notice that the argument being referred to by such nominalized phrase is an indefinite. The verb form in this specific construction is stem I as shown by (23a), but stem II is ungrammatical as shown by (23b).

Such intransitive subject argument nominalization is common in *K'Chò* and more examples are given below.

(24)a *lam-**k'hteit***
road-k.go.**I**
traveler

b. **lam-**hteih***
road-go.**II**

(25)a *lo-**k'ip***
hill.farm-k.sleep.**I**
one that sleeps in hill farms

b. **lo-**ih***
hill.farm-sleep.**II**

(26) *Mindat-**k'om***
Mindat-k.live.**I**
Mindat dweller

Intransitive subject nominalization without overt subject argument requires stem I morphology as in (24a)-(26). Stem II forms of the verb may not be used as (24b) and (25b) show. The verb in (26) does not exhibit overt stem change, but is interpreted as stem I due to the restricted environment.

Transitive subject nominalization is also formed in the same way. It normally consists of a transitive verb and its direct object as in (27)-(30).

(27)a *ngá-**k'shùi***
fish-k.search.**I**
fisherman

b. **ngá-**shui***
fish-k.search.**II**

(28)a *ei-**k'shòòng***
food-k.cook.**I**
cook

b. **ei-**shoon***
food-k.cook.**II**

(29)a *k'am-**k'yòi***
pot-k.sell.**I**
pot-seller

*b. *k'am-**yoih***
pot-k.sell.**II**

(30)a *m'guk-**k'èi***
stolen.thing-k.eat.**I**
thief (stolen thing eater)

*b. *m'guk-**ei***
stolen.thing-k.eat.**II**

In (27a)-(30a), each phrase consists of a transitive verb and its direct object argument. The phrase refers to the subject argument of the verbal element in the phrase, meaning 'someone who does the action conveyed by the verb to the collocating noun'. In other words, the phrase refers to the subject argument of the nominalized predicate. This type of phrase will be called transitive subject argument nominalization. Such transitive subject nominalization also calls for stem I as in (27a)-(30a). Stem II may not be used for subject argument nominalization as in (27b)-(30b).

As shown above, both intransitive and transitive subject nominalization choose Stem I. However, they cannot be marked for tense as (31) shows.

(31)a. **Ng'ai-**k'kài**-ci*
crab-k.climb.I-NF
climbing crab (cf. 13a)

b. **ui-**k'shì**-ci*
dog-k.die.I-NF
dead dog (cf. 14a)

c. **lam-**k'hteit**-ci*
road-k.go.I-NF
traveler (cf. 20a)

d. **lo-**k'ip**-ci*
hill.farm-k.sleep.I-NF
one that sleeps in hill farms (cf. 21a)

d. **ngá-**k'shùi**-ci*
fish-k.search.I-NF
fisherman (cf. 24a)

e. **ei-**k'shòòng**-ci*
food-k.cook.I -NF
cook (cf. 25a)

Phrases of both intransitive and transitive subject nominalization can function as non-subject argument of a clause as (32) shows.

(32)a. *Tam noh **ng'ai-k'kài** ghà pha(k)-ci.*
Tam ERG climbing-crab ten catch.I.NF
Tam caught ten climbing-crabs.

b. ***Ei-k'shòòng** am ài-meh ka-peit.*
cook to chicken-meat 1SG.SBJ-give.II
I gave the chicken to the cook.

Phrases of intransitive and transitive subject nominalization are direct object and indirect object of the sentences respectively in (32a) and (32b).

It has been clearly evidenced that both intransitive and transitive subject nominalization selects stem I in *K'Chò*. It will be shown in the following section that non-subject nominalization chooses stem II.

3.1.2 Non-subject nominalization and verb stem choice

Non-subject nominalization includes direct object, instrument, location, and action nominalization. All types of non-subject nominalization, unlike in subject nominalization, use stem II morphology.

3.1.2.1 Direct Object argument nominalization

In *K'Chò*, a bare stem II form of a transitive verb can play the role of its own direct object argument as in (33a) and (34a).

(33)a *phuih*
carry.with.strap.from head.**II**
thing that is carried

b. **phùi*
carry.with.strap.from.head.**I**

c. **phùi-ci*
carry.with.strap.from.head.**I**-NF

(34)a *ei*
eat.**II**
food (thing eaten)

b. **èi*
eat.**I**

c. **èi-ci*
eat.**I**-NF

The stem II forms in the above examples mean 'something that is being "verbed"', which means they refer to the direct object argument of the verbal element in question. Such stem II forms of a verb in the role of its own direct object will be called direct object nominalization. Stem I form of a transitive verb, with or without tense marking, may not stand for its own direct object argument as shown in (33b&c) and (34b&c).

In (35a) and (36a), the stem II form of the verbs *shòòng* 'cook' and *pha* 'catch' occur in noun phrases.

(35)a [*ka* ***shoon***] *èi* *tu* *düt* *ä!*
1POSS cook.**II** eat.I also AUX IMP
Just eat what I cooked/my cooking.[23]

b. * *ka-**shòòng*** *èi* *tu* *düt* *ä!*
1SG.SBJ-cook.**I** eat.I also AUX IMP

c. **ka-**shòòng**-ci* *èi* *tu* *düt* *ä!*
1SG.SBJ-cook.**I**-NF eat.I also AUX IMP

[23] The morpheme *ka* before stem II in (35a) is taken as possessive pronoun. It can be paraphrased into a genitive phrase: *kei ah shoon* '1SG GEN cook.II'. The same morpheme *ka* before stem I in (35b&c), on the other hand, is treated as verbal indexation.

(36)a [*khò ah* ***phaa***] *goi ah mòòng ung lèng neh*
spirit GEN catch.**II** DL GEN story at begin.I CONJ
Beginning from the story of the two (men) possessed by the spirit/(the two men of the spirit's catching)

b. **kho ah* ***pha*** *goi ah mòòng ung lèng neh*
spirit GEN catch.**I** DL GEN story at begin.I CONJ

c. **kho ah* ***pha-ci*** *goi ah moong ung leng neh*
spirit GEN catch.**I**-NF DL GEN story at begin.I CONJ

The stem II forms in the noun phrases within square brackets in (35a) and (36a) refer to 'something cooked' and 'someone/something caught' respectively. The stem II form in (35a) is modified by a possessive pronoun and the one in (36a) is modified by a genitive phrase and a numeral. This indicates that the stem II forms in the examples are grammatically nominal. Both non-finite and finite stem I may not occur in such position as the ungrammaticality of (35b,c) and (36b,c) show.

3.1.2.2 Instrument, location, and temporal nominalization

Nominalization of other categories such as instrument, location, and time also select stem II as (37a) - (41a) show.

Instrument

(37)a. *ka meh* ***ah-nák*** *kah ghát-ci.*
1S meat cut.**II**-nak NEG be.sharp.I-NF
my meat-cutting thing/instrument is not sharp.

b. **ka meh* ***át-nák*** *kah ghát-ci.*
1S meat cut.**I**-nak NEG be.sharp.I-NF

(38)a. *a* ***ngoh-nák*** *hnget-ci.*
3S sit.**II**-nak break.I-NF
chair/thing of his/her sitting-on broke.

b. **a* ***ngò-nák*** *hnget-ci.*
3S sit.**I**-nak break.I-NF

Location

(39)a. *meh* ***ah****-nák* *ah* *k'pí* *dá-ci.*
meat cut.II-nak at fly be.many.I-NF
There are a lot of flies where meat was cut/at the meat-cutting place.

b. **meh* ***át****-nák* *ah* *k'pí* *dá -ci.*
meat cut.I-nak at fly be.many.I-NF

(40)a. *ka* ***ngoh****-nák* *ah* *ló (lo ä)!*
1S sit.II-nak to come.I (come IMP)
Come to where I sit/my sitting place.

b. **ka* ***ngò****-nák* *ah* *ló.*
1S sit.I-nak to come.I

Time

(41)a *a* ***hteih****-nák* *hmű́p* *thùm* *lo* *chütah*
3S go.II-nak day three come.I CONJ
After the time of his going had become three days

b. *a ***hteit****-nak* *hmű́p* *thùm* *lo* *chütah*
3S go.I-nak day three come.I CONJ

In nominalization of instrument, location, and time, the generic nominalizer suffix *–nák* is used. The stem II form with the nominalizer *–nák* refers to the instrument or location or time of the action denoted by the nominalized verb. The nominalizer suffix *–nák* may not co-occur with stem I form of a verb as in (37b)-(41b). The stem II form in this type of nominalization can also be modified by possessive pronoun as in (37a), (38a), (40a), and (41a).

3.1.2.3 Action nominalization

Stem II form of a verb may be used as an argument of a verb.

(42)a ***Thah*** *na-gah-khai.*
beat.II 2SG.SBJ-get.I-F
You will get beating.

b. ****That*** *na-gah-khai.*
beat.I 2SG.SBJ-get.I-F

c. ****That-ci*** *na-gah-khai.*
beat.I-NF 2SG.SBJ-get.I-F

(43)a *loo-**bii*** *kà(k)-ci.*
field-work.II be.hard.I-NF
Working-the-field (farming) is hard.

b. **loo-**bi*** *kà(k)-ci.*
field-work.I be.hard.I-NF

c. **loo-**bi(k)-ci*** *kà(k)-ci.*
field-work.I-NF be.hard.I-NF

(44)a *ka lam-**hteih** noh na-m'goi-ci.*
1POSS road-go.II ERG 1SG.OBJ-CAUS.sick.I-NF
My road-traveling made me sick (I'm sick from my travel).

b. **ka lam-**hteit** noh na-m'goi-ci.*
1POSS road-go.I ERG 1SG.OBJ-CAUS.sick.I-NF

c. **ka lam-**hteit**-ci noh na-m'goi-ci.*
1POSS road-go.I-NF ERG 1SG.OBJ-CAUS.sick.I-NF

The highlighted stem II elements in the phrases of the above examples generally correspond to English abstract nouns of 'verb-ing' such as 'beating', 'working the field', and 'road-traveling'. Such stem II form of a verb, denoting an activity, will be called action nominalization. Such stem II forms function as arguments of the matrix verb: subject arguments of intransitive and transitive verbs in (43a) and (44a); and object argument of a transitive verb in (42a). A nominalized transitive verb may retain its object argument as in (43a), and nominalized intransitive verbs also may retain location as in (44a). Stem I is unacceptable in such action nominalization as the (b) and (c) examples show.

3.1.3 Summary

It has been well evidenced that stem choice in various types of nominalization is primarily determined by the argument types. Subject argument nominalization selects stem I, while other types of nominalization require stem II. The discussion in section 3.1 is summarized in Table 8.

Stem I	Stem II
Subject nominalization	Non-subject nominalization

Table 8: Interaction of verb stem with argument type in nominalization

Now, we will look at stem choice in valence changing operations in the subsequent section.

3.2 Relativization and stem choice

Relative clauses further demonstrate that subject correlates with stem I, and non-subject with stem II. Relativizing the subject argument selects stem I, whiie non-subject argument relativization is associated with Stem II. A detailed account of relative clauses in *K'Chò* is presented in Bedell and Mang (2006).

3.2.1 Subject relativizing clause

In a clause in which the subject argument is relativized, the verb is always Stem I. A relative clause in *K'Chò* is normally marked by the particle */ah/*.

(45)a. Jordan (1969: grammar p.39)

***K'chǜ**-ci ah k'chààng*
speak.**I**-NF REL man
The man who spoke

b. * ***k'chü/a-k'chü*** *ah k'chààng*
speak.**II**/3SG.SBJ-speak.**II** REL man

(46)a *Vok* ***htui**-khai ah ui*
Pig bite.**I**-F REL dog
The dog that will bite the pig

b. **Vok* ***htuih/a-htuih*** *ah ui*
Pig bite.**II**/ 3SG.SBJ-bite.**II** REL dog

Stem I is used when both intransitive and transitive subject arguments are relativized as in (45a) and (46a). Notice also that the Stem I forms are marked with tense/aspect *ci* 'Non-Future' in (45a) and *khai* 'Future' in (46a). Stem II is unacceptable as (45b) and (46b) show.

3.2.2 Non-subject relativizing clause

As opposed to the subject argument relativization, non-subject argument relativization requires stem II.

When a direct object is relativized, stem II is used as in (47a) and (48a). Stem I cannot be used as shown in (47b) and (48b).

(47)a *Ami-**hnguh**-te ah àihli*
3PL.SBJ-see.**II**-ASP REL star
The star which they saw

b. **Ami-**hngu**-te-ci ah àihli*
3PL.SBJ-see.I-ASP-NF REL star

(48)a. *na-**tüih** ah k'chààng*
2SG.SBJ-send.**II** REL man
The man you sent

b. **na-**tüì**-ci ah k'chààng*
2SG.SBJ-send.I-NF REL man

Indirect object relativization also uses stem II as in (49a). Stem I cannot be used as (49b) shows.

(49)a Jordan (1969: grammar p.39)[24]

ca	***ka-péit***	*ah*	*k'chààng-gui*	*cuh*
letter	1SG.SBJ-give.**II**	REL	man-PL	DEM

The people to whom I gave the letter

b. **ca ka-pe ah k'chààng-gui cuh*
letter 1SG.SBJ-give.I REL man-PL DEM

When the location and instrument are relativized, stem II is used as in (50a) and (51a), but stem I cannot be used as (50b) and (51b) show.

(50)a *A-hteih-**nák** ah im*
3SG.SBJ-go.**II**-na.**II** REL house
The house that s/he went (visited)

b. **A-hteih-**na** ah im*
3SG.SBJ-go.**II**.na.I REL house

(51)a *meh shoon-**nák** ah k'am*
meat cook.II.na.**II** REL port
The pot in which meat is cooked

b. **meh shoon-**na** ah k'am*
meat cook.II.na.**I** REL port

In (50a) and (51a), the applicative *–na* takes the stem II form of the verbs *hteit* 'go' and *shòòng* 'cook' (see 3.3.2.2). The applicative *–na* itself shows stem variation. The stem I form *–na* being high tone and open syllable, the stem II form *–nák* is with rising tone and velar stop final. Location and instrument relativization in (50a) and (51a) require the applicative *-na* in stem II. Stem I is unacceptable as (50b) and (51b) show.

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[24] Jordan did not seem to understand the distinction between stem I and II forms of a verb. He gave two *K'Chò* sentences as the equivalent of the English sentence 'I know what you said': '*Na piein ci cuh ka hmat ci*' and '*Na piein cuh ka hmat ci*'. In fact, the two *K'Chò* sentences are different. The latter is equivalent to the English sentence, but the former is not. The verb at issue is *piein* 'say'. In the former sentence, the verb is marked by tense/aspect *ci* 'Non-Future, but it is not in the latter. He did notice the presence/absence of the tense/aspect morphemes. But, he did not explain the reason.

To return to the two example sentences, both clauses with the verb *piein* 'say' are marked as object arguments of the matrix sentence by the demonstrative *cuh*. First, the verb in question does not exhibit overt stem change. The only difference between the two clauses is the presence of the tense/aspect *ci* 'Non-Future' in the subordinate clause. The presence/absence of the tense/aspect morpheme *ci* marks crucial semantic difference between the two. The clause marked with *ci* 'Non-Future' is a headless subject relative clause. The one without *ci*, on the other hand, is a headless object relative clause. Therefore, the first sentence means 'I know (the one who) is telling tales about me' and the second sentence, 'I know what you said'.

Stem I in subject relativization can be marked with *ci* 'Non-Future' and *khai* 'Future' as shown in (45a) and (46a). In non-subject relativization, tense marking on stem II with *ci* 'Non-Future' and *khai* 'Future' is not allowed as (47b) and (48b). Future time in the relative clause may only be marked with *vai* 'irrealis' as (52a) shows.

(52)a *Ami-**hnguh-vai** ah àihli*
3PL.SBJ-see.II-IRRL REL star
The star which they will see

b. **Ami-**hngu**-khai ah àihli*
3PL.SBJ-see.I-F REL star

3.2.3 Headless relative clauses

In *K'Chò*, a relative clause can be without an overt head (see Bedell and Mang 2006).

(53)a [***Shààng**-ci*] *noh gah-ci;* [***shùi**-ci*] *noh hngu(k)-ci.*
ask.I-NF ERG get.I-NF search.I-NF ERG find.I-NF
(One that) asks gets, (one that) seeks finds.

b. *Shààng-ci ah k'chàng noh gah-ci;*
ask.I-NF REL man ERG get.I-NF

shùi-ci ah k'chàng noh hngu(k)-ci.
search.I-NF REL man ERG find.I-NF
The man that asks gets, the man that seeks finds.

c. *[***Shaan***] *noh gah-ci;* [***shui***] *noh hngu(k)-ci.*
ask.II ERG get.I-NF search.II ERG find.I-NF

The two clauses within square brackets are subject arguments as they are marked with *noh* 'ergative'. But no noun is present in them. The two clauses within square brackets in (53a) are in fact headless relative clauses, which play the role of the head noun they modify, that is, 'one who asks' and 'one who searches' respectively. The head nouns may be provided as in (53b). As the two clauses modify the covert subject arguments of the relative clauses, they are headless subject relativizing clauses. In such headless subject relative clauses the verb is stem I as in (53a). Stem II cannot be used as (53c) shows.

Non-subject relative clauses also can occur without an overt head. The two clauses within brackets in (54a) are headless relative clauses, whose covert head nouns are object arguments of the relative clauses.

(54)a [*Nani-**ng'yák***], [*nani-**hnguh***] *phùng cuh*
2DL.SBJ-hear.II 2DL.SBJ-see.II every DEM
Every (thing that) you heard and saw,

b. *Nani-**ng'yák** ah k'chü, nani-**hnguh*** ah bii *phùng cuh*
2DL.SBJ-hear.II REL word, 2DL.SBJ-see.II REL work every DEM
Every word that you heard and every deed that you saw

c. **Nani-**ng'ya-ci**, *nani-**hngu-ci*** *phùng cuh*
2DL.SBJ-hear.I-NF 2DL.SBJ-see.I-NF every DEM

In such a headless relative clause modifying a covert object argument, the verb is in stem II. Stem I is unacceptable as shown in (54c).

Similarly, indirect object relativizing clauses, location and instrument relativizing clauses can also stand without the overt head noun they modify as in (55a) and (56a). Stem I may not occur in those relative clauses as (55b) and (56b) show.

(55)a *Om noh pàpai **a-péit*** *lo(k)-ci.*
Om ERG flower 3SG.SBJ-give.II come.I-NF
(The one) whom Om gave flower came.

*b. *Om noh pàpai **pe-ci*** *lo(k)-ci.*
Om ERG flower give.I-NF come.I-NF

(56)a *ka-ngoh-**nák*** *dí-ci.*
3SG-sit.II-na.II ruin.I-NF
Thing that I sat on (my chair) ruined.

*b. *ka-ngoh-**na*** *dí-ci.*
3SG-live.II-na.I ruin.I-NF

3.2.4 Summary

We have examined stem choice in relativization in this section. Stem choice in relativization also is determined by the argument that is being relativized. Stem I is used when the subject is relativized. Non-subject relativization, on the other hand, uses stem II.

Stem I	Stem II
Subject relativization	Non-subject relativization

Table 9: Interaction of verb stem with argument type in relativization

3.3 Verb stem choice in valence changes

Correlation between verb stem and argument type is also borne out in valence changes. Stem I is utilized when the syntactic valence of a transitive verb is decreased to only subject argument. Conversely, increasing the number of the existing valence of a verb (normally by increasing the number of non-subject arguments) calls for stem II.

3.3.1 Stem choice in valence decrease

Valence decreasing processes in *K'Chò* include deriving intransitive, reflexive, and reciprocal verbs from transitive verbs. Generally, valence decrease is coded on the verb with the derivational velar nasal prefix *ng-*. Valence decreasing in fact deprives a verb of non-subject argument/s. Therefore, allowing a verb to have only the subject argument conditions the choice of stem I.

3.3.1.1 Stem choice and detransitivizing

In *K'Chò*, intransitive verbs can be derived from transitive verbs with the derivational prefix *ng-*[25]. This prefix codes a decrease in valence. When the verb is prefixed with *ng-*, it may have only the subject argument as in (57b) and (58b).

(57)a *Om noh k'tung ung ng'yá **bat-ci.***
Om ERG post at bag hang.up.**I**-NF
Om hung up a/the bag on the post.

b. *K'tung ung Om **ng'bat-ci.***
post at Om ng-hang.up.**I**-NF
Om hangs (clings) to the post.

c. **K'tung ung Om **ng'bah-ci.***
post at Om **ng**-hang.up.**II**-NF

(58)a *Ui noh vok **na(k)-ci.***
dog ERG pig bark.at.**I**-NF
The dog barks/ed at the pig.

b. *Ui **ng'na(k)-ci.***
dog ng-bark.at.**I**-NF
The dog barks/ed.

c. **Ui **ng'nák-ci.***
dog ng-bark.at.**II**-NF

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[25] In K'Chò, there are some verbs with inherent initial velar nasal morpheme /ng-/. These verbs are mostly intransitive as shown in the sentence (1a) and (2a) below. Causative verbs are derived with the addition of the derivational prefix */m-/* and the use of stem II as shown in (1b) and (2b) In fact, the whole paradigm of derivations in the language is yet to be studied.

(1)a. *Ng'dǘi-ci.*
stand.I-NF
She/he/it stands/stood.

(1)b. *Om noh Mang **m**'düih-ci.*
Om ERG Mang CAUS.stand.II-NF
Om made Mang stand.

(2)a. *Ui goi **ng**'tu-tu-ci-goi.*
dog DL fight.I-AUX-NF-DL
The two dogs had a fight (fought each other)

(2)b. *Ui goi **m**'tuk-tu-goi-ci.*
dog DL CAUS.fight.II-AUX-DL-NF
S/he made/caused the dogs fight.

The verbs *bat* 'hang up something' and *na* 'bark at' in (57a) and (58a) each have a syntactic valence of two. In (57b) and (58b), the same verbs are marked with the derivational velar nasal prefix *ng-*[26]. The number of arguments of the derived verbs is reduced to one, which is undoubtedly the subject. Only stem I form may be used in deriving a mono-valence verb from a transitive verb. Stem II may not be used as in (57c) and (58c).

3.3.1.2 Deriving reflexive and reciprocal verbs

In *K'Chò,* reflexive and reciprocal verbs are also derived from transitive verbs with the same derivational prefix *ng-*.

(59)a *Tam noh meh k'khìm on* ***át-ci.***
Tam ERG meat knife with cut.**I**-NF
Tam cut meat with a/the knife.

b. *Tam k'khìm on* ***ng'ái-ci.***
Tam knife with ng-cut.**I**-NF
Tam cut himself with a knife.

c. **Tam k'khìm on* ***ng'áh-ci.***
Tam knife with ng-cut.**II**-NF

In (59b), reflexive verb *ng'át* 'cut self' is derived from the prefix *ng-* and the stem I form of the transitive verb *át* 'cut'. Stem II form may not be used to derive reflexive verbs as (59c) shows.

Examples (60) and (61) are instances of deriving reciprocal verbs from transitive verbs.

[26] According to Comrie (1985: 309), the form that lacks an affix is considered to be the base verb form and the one with an affix the derived one. Following this criteria, the verbs *bat* 'hang up' and *na* 'bark at' in (43a) and (44a) are considered to be the base verb. Whereas, the forms with the velar nasal prefix are taken as the derived forms.

(60)a *Om noh Yóng* ***hngu(k)-ci.***
Om ERG Yong see.**I**-NF
Om saw Yong.

b. *Om lah Yóng* ***ng'hngu(k)-ci-goi.***
Om and Yong **ng**-see.**I**-NF-DL
Om and Yong met (saw each other).

c. **Om lah Yóng* ***ng'hnguh-ci-goi.***
Om and Yong **ng**-see.**II**-NF-DL

(61)a. *Ui noh vok* ***htui-ci.***
dog ERG pig bite.**I**-NF
The dog bit the pig.

b. *Ui gui* ***ng'htui-ci-gui.***
Dog PL **ng**-bite.**I**-NF-PL
Dogs were biting (one another).

c. **Ui gui* ***ng'htuih-ci-gui.***
Dog PL ng-bite.**II**-NF-PL

In (60a) and (61a), the verbs *hngu* 'see' and *htui* 'bite' are transitive verbs. The ones with the derivational prefix *ng-* in (60b) and (61b) are reciprocal verbs. Such reciprocal verbs are derived from stem I form of the base verb. Stem II may not be used to derive a reciprocal verb as (60c) and (61c) show.

There are other types of verbs derived from transitive verbs with the same derivational prefix *ng-*.

(62)a. *Om noh Pái am pàpai* ***pe(k)-ci.***
Om ERG Pai to flower give.**I**-NF
Om gave flower to Pai.

b. *M'hú* ***ng'pe(k)-ci.***
flu ng-give.**I**-NF
The flu spreads (the flu is being transmitted).

c. **M'hú* ***ng'peít-ci.***
flu ng-give.**II**-NF

(63)a. *K'am* ***kyäng****-ci.*
pot put.on.hearth-fire.**I**-NF
S/he put the pot on the hearth-fire.

b. *K'am* ***ng'kyäng****-ci.*
pot ng-put.on.hearth-fire.**I**-NF
The pot is on the hearth-fire (it is being put on the hearth-fire).

c. **K'am* ***ng'kyän****-ci.*
pot ng-put.on.hearth-fire.**II**-NF

(64)a *Páihtiim noh a pó* ***pyéin****-ci.*
Paihtiim ERG 3SG.POSS friend tell.**I**-NF
Paihtiim gossiped about her friend.

b. *Pá ithiim* ***ng'pyéin****-ci.*
Paithiim ng-tell.**I**-NF
Paithiim gossips.

The verb in (62a) is a ditransitive verb. Those in (63a) and (64a) are mono-transitive verbs. The verbs in (62b)-(64b) are intransitive verbs derived with the derivational prefix *ng-*. In derivation of such intransitive verbs, stem II may not be used as in (62c) and (63c). The verb *pyein* 'tell/say' in (64a) is stem-invariant.

The semantic aspect of these derived verbs is interesting. Jordan (1969) argues that derived verbs like (62b) and (63b) in *K'Chò* are passive in nature. The flu needs some host or agent to facilitate its transmission and the pot may not get on the hearth-fire by itself but someone must put it there. The derived verb in (64b) is somewhat different from the former two. It implies that the person (or the spirit) is in the habit of doing the action denoted by the verb.

The derived verbs in (62b) and (63b) are not considered as passive forms. Passive construction generally has three main features, namely demotion of syntactic subject, promotion of the object, and morphological change of the verb. The prefix *ng-* is not a passivizer as can be seen from examples (60) and (61) where the object argument is deleted. Therefore, the function of the use of *ng-* is to code the removal of an argument and as a result the remaining argument is the subject.

We have seen that in *K'Chò* valence decreasing operations such as de-transitivizing, deriving reflexive, reciprocal, and other types of intransitive verbs require stem I form of the base verb. In other words, turning a transitive verb into a mono-valence verb, which is allowing it to have only the subject argument, correlates with stem I. Stem II may not be used in valence decreasing derivations. As the derived verb is being used in an atypical valence pattern, *K'Chò* uses stem I to code this feature.

In the following section, we will see the correlation between increasing the valence of a verb, exclusively by the addition of a non-subject argument, and stem choice.

3.3.2 Verb stem choice in valence increase

Valence increase is associated with stem II in *K'Chò*. Valence-increasing includes deriving causative and applicative verbs from intransitive and/or transitive verbs.

3.3.2.1 Causatives

In *K'Chò*, causative verbs are derived from the stem II form of both intransitive and transitive verbs.

(65)a. *A-k'hmó* ***ip**-ci.*
child sleep.**I**-NF
The child sleeps/slept.

b. *Yóng noh a-k'hmó* ***m'ih**-ci.*
Yong ERG child **CAUS**-sleep.**II**-NF
Yong put the child to sleep.

c. **Yóng noh a-k'hmó* ***m'ip**-ci.*
Yong ERG child **CAUS**-sleep.**I**-NF

d. *Yóng noh a-k'hmó* ***ih-hlak**-ci.*
Yong ERG child sleep.**II-CAUS**-NF
Yong asked/made the child sleep.

e. **Yóng noh a-k'hmó* ***ip-hlak**-ci.*
Yong ERG child sleep.**I-CAUS**-NF

In (65a), the verb *ip* 'sleep' is intransitive. The causative verb in (65b) is derived by prefixing the causative morpheme *m-* to the stem II form of the verb *ip* 'sleep'. The causative verb derived with the prefix *m-* signals direct causation. A causative verb derived by suffixing *-hlak* to the stem II, on the other hand, conveys indirect causation as shown in (65d). Stem I form of the verb is unacceptable to form both direct and indirect causative verbs as (65c) and (65e) show.

In (66a), a double causative verb is derived from the intransitive verb *ip* 'sleep'. The stem II form of the base verb is consistently used, and stem I is unacceptable as shown in (66b).

(66)a. *Nú* *noh* *Yóng* am *a-k'hmó* ***m'ih-hlak-ci.***
Mother ERG *Yóng* DAT child CAUS-sleep.**II**-CAUS-NF
Mother asked/made *Yóng* to put the child to sleep.

b. **Nú* *noh* *Yóng* am *a-k'hmó* ***m'ip-hlak-ci.***
Mother ERG *Yóng* DAT child CAUS-sleep.**I**-CAUS-NF

Some direct causative verbs are derived with the causative prefix *k-*.

(67)a *Tam* ***pang-ci.***
Tam be.deaf.**I**-NF
Tam is/was deaf.

b. *Ng'äi* *noh* *Tam* ***k'pan-ci.***
song ERG Tam CAUS-be.deaf.**II**-NF
The song deafened Tam.

c. **Ng'äi* *noh* *Tam* ***k'pang-ci.***
song ERG Tam CAUS-be.deaf.**I**-NF

The verb *pang* 'be deaf' in (67a) is an intransitive verb. The causative verb in (67b) is derived with the prefix *k-* from the stem II form of the verb *pang* 'be deaf'. Stem I may not be used in this derivation as shown in (67c).

The following two sets of data provide evidence for verb stem alternation when causative verbs are derived from a transitive and ditransitive verb.

(68a) is a transitive sentence with mono-transitive verb *èi* 'eat' and (69a) is a transitive sentence with ditransitive verb *pe* 'give'.

(68)a. *Yòòng noh panshì **èi-ci.***
monkey ERG banana eat.I-NF
The monkey ate banana.

b. *Tam noh yòòng am panshì **m'bei-ci.***[27]
Tam ERG monkey DAT banana CAUS-eat.II-NF
Tam fed (gave) banana to the monkey.

c. **Tam noh yòòng am panshì **m'èi-ci.***
Tam ERG monkey DAT banana CAUS-eat.I-NF

d. *Nú noh Tam am yòòng panshì **m'bei-hlak-ci.***
mother ERG Tam DAT monkey banana CAUS-eat.II -CAUS-NF
Mother made/asked Tam to feed the monkey banana.

e. **Nú noh Tam am yòòng panshì **m'èi-hlak-ci.***
mother ERG Tam DAT monkey banana CAUS-eat.I-CAUS-NF

(69)a. *Tam noh Yah am pàpai **pe(k)-ci.***
Tam ERG Yah to flower give.I-NF
Tam gave Yah flowers.

b. *Om noh Tam am Yah cuh pàpai **péit-hlak-ci.***
Om ERG Tam DAT Yah DEM flower give.II-CAUS-NF
Om asked/made Tam to give Yah flowers.

c. **Om noh Tam am Yah cuh pàpai **pe-hlak-ci.***
Om ERG Tam DAT Yah DEM flower give.I-CAUS-NF

d. *Om noh Tam cuh Yah am pàpai **péit-hlak-ci.***
Om ERG Tam DEM Yah DAT flower give.II-CAUS-NF
Om asked/made Tam to give Yah flowers.

e. **Om noh Tam cuh Yah am pàpai **pe-hlak-ci.***
Om ERG Tam DEM Yah DAT flower give.I-CAUS-NF

The causative verbs in (68b) and (69b) are causative verbs derived from the two transitive verbs. (68d) is a double causative verb. In all the causative derivations,

[27] Stem II of the verb èi 'eat' acquires the sound /b/ when the causative prefix /m-/ comes before it.

stem II of the base verb is used. Stem I is not acceptable as shown in (68c&e), and (69c&e).

Arguments of non-causative verbs and derived causative verbs are shown in Table 10. S is intransitive subject. A, P, and R are agent, patient, and recipient respectively. C1 and C2 are causer 1 and causer 2.

Example sentence	Verb	SBJ	**DO**	**IO**
(65a), (67a)	Intransitive	S		
(65b), (67b)	Causative (m-/k-/-hlak)	C1	**S**	
(66a)	Double-causative (m-/k-)+-hlak	C2	**S**	**C1**
(68a)	Mono-transitive	A	**P**	
(68b)	Causative (m-, k-, -hlak)	C1	**P**	**A**
(68d)	Double causative (m-/k-) + -hlak	C2	**A, P**	**C1**
(69a)	Di-transitive	A	**P**	**R**
(69b)	Causative (-hlak)	C1	**P, R**	**A**
(69d)	Causative (-hlak)	C1	**P, A**	**R**

Table 10: Table of argument rearrangement of causatives verbs

From the above, it can be seen that S and A of non-causative verbs are being demoted to non-subject status when a causer is introduced. Therefore, valence increasing by causative derivation is in fact addition or increasing the existing number of non-subject arguments by demotion of S and A. In the case of double causative sentences, the C1 also is demoted to indirect object status, increasing the number of non-subject arguments further.

This process of addition or increasing the number of non-subject arguments through demotion of S, A, and C1 is coded on the verb by the use of stem II. This is further evidence of correlation between stem II and non-subject arguments discussion in 3.2.1.

We want to continue to examine the stem choice related to deriving various applicative verbs.

3.3.2.2 Applicatives

In *K'Chò*, derivation of applicative verbs from non-applicative verbs is associated with stem II morphology. There are two principal ways of deriving applicative verbs in *K'Chò*: (1) by using applicative suffixes and (2) using a bare stem II form as an applicative verb.

Jordan (1969: Grammar p.63-64) listed the following as applicative morphemes: *–na*, *–pe*, *-püi*, *–shì*, and *–tá* along with many other various types of other verbal affixes, which he called 'Augmentative Verbal Affixes'. We will examine each case of deriving applicative verbs with these suffixes.

Applicative *–na*

Jordan (1969: 157-158) generally treats the post-verbal morpheme *-na* as an auxiliary except for one which he deemed to be a finite verb meaning 'to own/possess'. Bedell and Mang (forthcoming) argue that synchronically it is not an independent verb, but an applicative morpheme in *K'Chò* although it exhibits stem alternation like an independent verb.

(70)a. *M'vät* ***shì(k)-ci.***
leech die.I-NF
The leech died.

b. *M'vät noh m'shi* ***shih-na(k)-ci.***
leech ERG salt die.II-APPL-NF
The leech died from salt.

c. **M'vät noh m'shi* ***shì-na(k)-ci.***
leech ERG salt die.I-APPL-NF

In (70a), the verb is intransitive with a valence of one. In (70b), the stem II form of the verb *shì* 'die' with the suffix *-na* takes an object argument in addition to the subject argument. The presence of the applicative morpheme *-na* requires the

object argument 'salt', which is also called 'applied object'. Applicative suffix *-na*, however, may not be used with stem I as (70c) shows.

When the applicative verb is derived from a transitive verb, non-subject arguments are readjusted.

(71)a *Om noh k'khìm on meh* ***át-ci.***
Om ERG knife with meat cut.**I**-NF
Om cut meat with the knife.

b. *Om noh k'khìm meh* ***ah-na****(k)-ci.*
Om ERG knife meat cut.**II**-APPL-NF
Om used the knife for cutting meat.

c. **Om noh k'khìm meh* ***át-na****(k)-ci.*
Om ERG knife meat cut.**I**-APPL-NF

In (71a), the transitive verb *át* 'cut' has two core arguments: '*Om*' and *meh* 'meat', and one oblique argument *k'khìm* 'knife', which is marked by the instrument postposition *on*. The valence of the derived applicative verb with the suffix *-na* in (71b) increases to three core arguments: *Om, khìm* 'knife', and *meh* 'meat'. The argument *khìm* 'knife', unlike in (71a), is marked as a direct object argument. This is the case of raising an oblique or peripheral argument of the base verb to a core argument or direct object of the derived applicative verb (Croft 1991:232, Payne 1997:186, Van Valin 2001:62, Kroeger 2004:65). Stem I of a transitive verb may not be used with the applicative *-na* as (71c) shows.

Applicative *-pe*

The applicative suffix *-pe* is identical in form with the verb *pe* 'give'. Jordan (1969: grammar p.63) gives the meaning of this applicative as 'in the place of/on behalf of'. Applicative verbs derived with the suffix *-pe* also increase the valence of the base verb by one. More detailed treatment of *-pe* is offered in 'Benefactives in *K'Chò*' by Bedell and Mang (forthcoming).

(72)a. *Om nòh k'htù **la(k)-ci.***
Om ERG shirt take.**I**-NF
Om took the shirt.

b. *Om nòh Tam k'htù **lák-pe(k)-ci.***
Om ERG Tam shirt take.**II**-APPL-NF
Om took Tam's shirt.

c. **Om nòh Tam k'htù **la-pe(k)-ci.***
Om ERG Tam shirt take.**I**-APPL-NF

(73)a *Meh **èi-yop-ci.***
Meat eat.**I**-complete.ASP-NF
He ate up the meat.

b. (Jordan 1969: Grammar p. 63)
*Meh cuh à-nà-**ei-péit-yop.***
Meat DEM 3SG.SBJ-1SG.OBJ-eat.**II**-APPL-complete.ASP.
He ate up my meat.

c. **Meh cuh à-nà-**èi-péit-yop.***
Meat DEM 3SG.SBJ-1SG.OBJ-eat.**I**-APPL-completely.

In (72a) and (73a), transitive verbs *la* 'take' and *èi* 'eat' take two arguments each. In (73a), the 3rd person singular subject is inferred from the verb as it is unmarked for person and number. In (72b) and (73b), stem II form of the two verbs with suffix *-pe* have three arguments: additional argument *Tam* (recipient) in (72b) and *na* (agreement with the recipient argument) in (73b). In (73b), the subject argument and recipient are not overtly present. They are inferred from the agreement marking on the verb. Stem I may not be used in deriving applicative verbs with *-pe* as in (72c) and (73c).

Applicative *-püi*

Jordan (1969: grammar p.63) gives the meaning of the applicative *-püi* as 'to help someone doing something or to initiate/engage someone in doing something'.

(74)a *Kaap* ***yòòng****-ci.*
crow fly.**I**-NF
The crow flew.

b. *Kaap noh ài-htá yoon-**püi**-ci.*
crow ERG chicken fly.**II**-APPL-NF
The crow flew away with the chicken (carrying it).

c. **Kaap noh ài-htá yòòng-**püi**-ci.*
crow ERG chicken fly.**I**-APPL-NF

(75)a *Nú bii* ***bi****(k)-ci.*
mother work do.I-NF
Mother did work (mother worked).

b. *Pá noh nú bii bii-**püi**-ci.*
father ERG mother work do.**II**-APPL-NF
Father helped mother (in/with) her work.

c. **Pá noh nu bii bi-**püi**-ci.*
father ERG mother work do.I-APPL-NF

In (74), the verb *yòòng* 'fly' is intransitive. The derived applicative verb in (74b) is a transitive verb. The verb *bi* 'do' in (75a) is a mono-transitive verb, but the one derived with the suffix *-püi* in (75b) is a ditransitive verb. The applicative suffix *-püi* may be attached to only stem II form of a verb. It may not be derived from the stem I form of a verb as in (74c) and (75c).

Applicative *-shi*

Jordan (1969: grammar p.64) labeled this applicative as 'marking assault'. It conveys the meaning that the action signified by the base stem is done upon the added argument.

(76)a. *Khò-k'nget* ***lo(k)-ci.***
spirit-evil come.I-NF
The devil came.

b. *Khò-k'nget noh Jeisu loo-**shi**-ci.*
spirit-evil ERG Jesus come.II-APPL-NF
The devil came to Jesus.

c. **Khò-k'nget noh Jeisu lo-**shi**-ci.*
spirit-evil ERG Jesus come.I-APPL-NF

(77)a *Nu noh shàmpài **dèèng**-ci.*
mother ERG soya-bean pound.I-NF
Mother pounded the soya-beans.

b. *Nu noh shàmpài m'shíp on deen-**shi**-ci.*
mother ERG soya-bean chili together.with pound.II-APPL-NF
Mother pounded the soya-beans with chili.

c. * *Nu noh shàmpài m'shíp on dèèng-**shi**-ci.*
mother ERG soya-bean chili together.with pound.I-APPL-NF

The verb *lo* 'come' in (76a) is intransitive. The verb derived with the applicative *-shi* from its stem II, on the other hand, has direct object argument 'Jesus' as in (76b). The verb *dèèng* 'pound' in (77a) is a mono-transitive verb. Whereas, the derived verb with the applicative suffix *-shi* in (77b) is a ditransitive verb taking an additional object argument. In both cases, stem I may not be used in deriving applicative verbs with the suffix *-shi* as in (76c) and (77c).

Applicative *-tá*

Jordan (1969: Grammar p.64) states that the morpheme *-tá* indicates what is left behind upon leaving.

(78)a *K'pámi* ***shì****(k)-ci.*
man die.I-NF
The man died.

b. *K'pámi noh a-k'chú shih-**tá**-ci.*
man ERG 3SG.POSS-wife die.II-APPL-NF
He died leaving his wife behind.

*c. *K'pámi noh a-k'chú shì-**tá**-ci.*
man ERG 3SG.POSS-wife die.I-APPL-NF

(79)a *Tam noh buh **èi**-ci.*
Tam ERG meal eat.I-NF
Tam ate meal.

b. *Tam noh a-pó buh ei-**tá**-ci.*
Tam ERG 3SG.POSS-friend meal eat.II-APPL-NF
Tam ate the meal ahead of his friend.

c. **Tam noh a-pó buh èi-**tá**-ci.*
Tam ERG 3SG.POSS-friend meal eat.I-APPL-NF

In (78a), the base verb is an intransitive. The derived applicative verb with suffix *-tá* in (78b) adds an object argument. Similarly, the base verb in (79a) is mono-transitive. The derived verb with applicative suffix *-tá* in (79b) is a ditransitive. An applicative verb with the suffix *-tá* may not be derived from stem I of a verb as (78c) and (79c) show.

Applicative stem II

In *K'Chò*, stem II form of some verbs function as applicative verbs.

(80)a *Yóng* ***kyǜ(k)-ci.***
Yong be.afraid.**I**-NF
Yong is scared.

b. *Yóng noh kong* ***kyüh-ci/khai.***
Yong ERG tiger fear.**II**-NF/F
Yong feared/will fear tiger.

c. **Yóng noh kong* ***kyǜ(k)-ci/khai.***
Yong ERG tiger fear.**I**-NF/F

(81)a *Yóng noh pàpai* ***ghot-ci.***
Yong ERG flower throw.away.**I**-NF
Yong threw away the flower.

b. *Yóng noh Om àm pàpai* ***ghoh-ci/khai.***
Yong ERG Om DAT flower throw.**II**-NF/F
Yong threw/will throw the flower to Om.

c. **Yóng noh Om àm pàpai* ***ghot-ci/khai.***
Yong ERG Om DAT flower throw.**I**-NF/F

The verb in (80a) is an intransitive verb. Its stem II form is used as a transitive finite verb taking an object in (80b). Similarly, stem II form of transitive verb *ghot* 'throw something way' in (81a) is used as a finite transitive verb with direct and indirect object in (81b). The stem II verbs in (80b) and (81b) being finite verbs, they can be marked with tense/aspect *ci* 'Non-Future' and *khai* 'Future'. The stem II finite verbs retain the basic meaning of their base verbs in (80a) and (81a).

As the stem II finite verbs add an object argument and indirect argument repectively, they are applicative verbs. Stem I form of a verb may not be used as an applicative verb as (80c) and (81c) show.[28]

[28] Henderson (1965:84ff) reports for *Tiddim* that stem II may be used in sentences in the sense of 'doing something for someone'. (continued over)

In summary, deriving applicative verbs is a case of valence increasing by adding an object argument to the valence of the non-applicative base verb or raising a peripheral argument of a non-applicative verb to a core argument of a derived applicative verb. Addition of an object argument or raising of an argument from peripheral to core status correlates with the use of stem II. This is further evidence of correlation between non-subject arguments and stem II. Interaction of valence changes and stem alternation is summarized in the following table.

Stem I	Stem II
Valence decrease -detransitivization -Reflexive and reciprocal	Valence increase -causative -applicative

Table 11: Interaction of verb stems and argument types in valence changes

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(a) Henderson (1965:84)
*Sa a **go** hi* 'He killed an animal. vs. *Sa a **ngawh** hi.* 'He killed an animal for me.'
*Kei a ding **lup**[1] hi.* 'He prepared beer on my behalf.' vs. *Zu hong **lup**[2] hi.* 'He prepared beer for me.'

It appears that stem II can be used as applicative verb in both *Falam* (Laizo) and *Lai* as well. (b) and (c) are *Falam* and *Lai* transitive sentences in which stem II form of the verb *that* 'kill' is used in the canonical sense. The verb has two arguments in both languages. The subject argument is marked with particle *in* in *Falam* and *nih* in *Lai*.

(b) Falam (Khar Thuan pc)
*Bawithang in vok **a-thah**.*
Bawithang ERG pig 3SG.SBJ-kill.II
Bawithang killed a/the pig.

(c) Lai (Khar Thuan pc)
*Mangkio nih vok **a-thah**.*
Mangkio ERG. pig 3SG.SBJ-kill.II
Mangkio killed a/the pig.

In (d) and (e), the same verb takes three arguments in both languages. Another noticeable change is the agreement marking on the verb. In *Falam*, 3rd person subject agreement is dropped, but the verb agrees with the added object argument *i* '1SG.OBJ'. In *Lai*, the verb agrees with the added object argument in addition to the subject argument.

(d) Falam
*Bawithang in keimah vok **i-thah**.*
Bawithang ERG 1SG pig 1SG.OBJ-kill.II
Bawithang killed me a/the pig.

(e) Lai
*Mangkio nih keimah vok **a-ka-thah**.*
Mangkio ERG 1SG pig 3SG.SBJ-1SG.OBJ-kill.II
Mangkio killed me a/the pig.

3.4 Summary

In summary, we have examined the stem choice within a clause, with respect to nominalization, relative clauses, and valence changing. Regarding nominalization, the choice of verb stem depends on the type of nominalizaiton. Nominalization of subject argument requires the use of stem I, while non-subject argument nominalization and action nominalization require stem II.

In relativization, the stem choice is determined by the argument being relativized. Subject relativization uses stem I, while non-subject relativization uses stem II.

Valence decreasing whether by deletion of object or by making the subject/s be Actor and Undergoer simultaneously requires stem I. Valency increase, either by demotion of S or A to a non-subject slot in causative derivations or addition of an object argument and promotion of an argument from peripheral to core argument status in derived applicative verbs, requires stem II.

The discussion in chapter 3 is summarised in Table 12.

Environment	**Stem I**	**Stem II**
Nominalization (3.1)	Subject	Non-subject
Relativization (3.2)	Subject	Non-subject
Valency changing (3.3)	Valence decreasing	Valence increasing

Table 12: Interaction between argument type and verb stem alternation

In the following chapter, we will examine stem choice constraints between clauses.