

DISTRIBUTION AND CONTROL PROPERTIES OF THE INFINITIVE IN XITSONGA

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Abbreviations

The Infinitive has received some attention in the recent past, beginning with the Government and Binding Theory with control theory and an Infinitive subject designation as PRO (see i.a. Chomsky 1981, 1982 and Haegeman 1991). Various applications of the Government and Binding theory have been attempted for the South African Bantu languages and also specifically for the Infinitive (see i.a. Motaung 1991, Sadiki 1992, Du Plessis and Visser 1992, Tunzelana 1993, Du Plessis, Nxumalo, Visser 1995, and Visser 1998).

The Minimalist Program has built on the GB model and one of their basic tenets was the question of the theoretical validity of empty categories such as PRO for the Infinitive (see i.a. Chomsky 1995, 2006, Hornstein 2005, Boeckx 2006, 2008, Rizzi 2004, Belletti 2004, and Hornstein 2009).

The Infinitive in Xitsonga and other Bantu languages exemplifies both nominal and verbal properties: see Du Plessis and Visser (1992:88-91) for a discussion of the nominal and verbal properties of the Infinitive. These two types of Infinitives will be referred to as nominal and clausal Infinitives respectively. The Infinitive in Xitsonga is represented by a class prefix of class 15 in Bantu linguistics. The form of this prefix is [ku-] in Xitsonga:

- (1) [ku-tirh-a]
(to-work-fv: working/to work)

NOMINAL INFINITIVE

The nominal Infinitive may appear in the positions of a DP in syntax. In the paragraphs below some of these positions will be given. See also Du Plessis, Nxumalo, Visser (1995:71).

Subject

The Infinitive may appear as an external argument in the subject position of a clause:

- (2) a. [Ku-tirh-a] ku-/swi-lungh-ile]
(To-work-fv agr-be.good-perf: working is in order)
- b. U-fanele ku-swi-tiva leswaku [ku-tirh-a ngopfu] a-swi-fan-i [ni [ku-tirh-a kahle]
(You-ought to-agr-know that to-work very.much neg-agr-equal with to-work well: you ought to know that to work very much is not the same as to work well)

[ku-tirha] (to work) appears in the subject position of the clause in (a) and (b). This is evident through its subjectival agreement which is either [ku-] of class 15 or [swi-] of class 8 in (a). In (b) only the subjectival agreement of class 8 is evident.

Object

- (3) a. [Ndzi-vona [ku-xonga ka yona]
(I-see to-be.beautiful of her: I see her beauty) (Risiba 2000:56)
- b. [Ku-tirh-a] [v-a-ku-rhandz-a]
(to-work they-pres-it-love-fv: working they love it)

The Infinitive [ku-xonga] and [ku-tirha] in (a-b) appear in the object position. In (b) the Infinitive appears in a topic position which necessitate the presence of its objectival agreement [-ku-] on the verb in [va-**ku**-rhandza].

Complement of prepositions

Complement of the preposition [ni]

- (4) Ku-tirha ngopfu [a-swi-fan-i [ni [ku-tirh-a kahle[
(To-work very.much neg-agr-fit-neg with to-work-fv-well: to work very much is not the same as to work well)

The Infinitive [ku-tirha] is a complement of the preposition **ni** above.

Complement of the preposition [hi]

The nominal infinitive is a complement of the preposition [**hi**]. This preposition **hi** may have various meanings (see i.a. Du Plessis and Visser 1992:148-156 for an overview of the meanings of **nga** in isiXhosa which is represented by **hi** in Xitsonga). With a nominal infinitive as complement, the preposition **hi** may either have the meaning of cause or manner.

The preposition hi with the meaning of manner

- (5) Vatswari va-sungur-ile [hi [ku-kamb-er-iw-a]
(Parents agr-begin-perf by to-examine-appl-pass-fv: the parents began by being examined (for)) (Maluleke 1981:52)

The verb **sungula** (begin) is an aspectual verb. The verb **kamb-el-a** (examine) appears with the passive morpheme [iw-].

- (6) Yima ndzi-rhanga [hi [ku-endla leswi ndzi-vula-ka]
(Wait I-begin by to-do rel.det I-say-rem: Wait I begin by doing what I say)
(Ngobeni 2005:49)

The verb **rhanga** (begin, do first) is also an aspectual verb and the verb **endla** is a creation verb which appears with a DP as complement.

- (7) Ku-tlhela ku-rhomba [hi [ku-rhula] k-o-hlamar-is-a
(To-again to-be-subdued by to-be-quiet, agr-just-astonish-caus-fv: to again to be subdued by being quiet, it just astonishes) (Nkondo 1986:100)

Both verb [rhomba] [be subdued} and [rhula] (be quiet) are psych verbs which are intransitive.

- (8) Hi-ta-vona loko a-ta-fuma [hi [ku-khiyela yindlu leyi]
(we-will-see when he-will-be-rich by to-lock house this: we will see when he will be rich by locking this house) (Rikhotso 1984:13)

The verb **fuma** (be rich) is a state verb and **khiyela** (lock) a change of state verb which has a DP as complement.

- (9) a. U-vulavur-ile na Fanifirene [hi [ku-tsope-ta tihlo]
 (he-speak-perf with Fanifirene by to-blink eyes: he spoke to Fanifirene by
 blinking his eyes) (Maluleke 1982:72)
- b. Va-engetela [hi [ku-ndzi-heleketa hi xinkwa xo-basa na machipisi]
 (They-continue with to-me-carry with bread of-to-be-white and chips: they
 keep on carrying to me White bread and chips) (Risiba 2000:58)

The Infinitival clauses in (a) and (b) above both appear as complements of the preposition [hi] with the reference of manner.

The preposition [hi] with the meaning of cause

- (10) V-o-homboloka [hi [ku-pfumel-er-iw-a hi wena]
 (They-just-be-crooked because to-allow-appl-pass-fv by you: they were merely
 crooked because of being allowed by you) (Ngobeni 2003:48).

The verb **homboloka** (be crooked) is a state verb and **pfumel-el-** (allow) with the applicative **-el-** is a communication verb. The preposition **hi** introduces a cause interpretation.

- (11) A-hlakahla nhloko [hi [ku-khunguvanyeka]
 (he-shake head because of-to-be-shocked: he shook his head because of
 being shocked) (Maluleke 1998:33)

The verb **hlakahla** (shake) is a verb relating to the body and **khunguvanyeka** (be shocked) is a psych verb, with **hi** a causal preposition.

Nominal modifiers

See Du Plessis, Nxumalo, Visser (1995), chapters 9 and 10 for the nominal modifiers of Xitsonga. The Infinitive may appear with any modifier as other DPs:

Demonstrative and possessive

- (12) [Ku-tlanga loku [ka [vafana]
 (to-play this of-boys: this playing of the boys)

[loku] above is the demonstrative and [ka vafana] the possessive: both are in agreement with the Infinitive through its prefix [ku-], i.e. [lo-ku] and [ku-a] → [ka]

Locative Infinitive

With locative [e-] and [-ini]:

- (13) [V-aha-ri emasin'wini [e-ku-hlakuleni]
 (They-still-cop.vb in-lands in-to-hoe-loc: they are still in the lands hoeing)
 (Maluleke 1998:51)

The Infinitive [ku-hlakula] (to hoe) has a locative prefix with a locative suffix [-ini]: **e-ku-hlakuleni**

Without locative [e-]:

- (14) Na yena u-ta [ku-tsar-is-eni]
 (even she agr1-comes to-register-loc: even she comes to the registration)
 (Lubisi 2008:1)

The Infinitive is [ku-tsarisa] and in the locative it appears without the locative prefix [e-] after a verb of motion **ta** which requires a locative complement.

With a copulative verb:

- (15) [U-[le-ku-chayeleni [ka movha]
 (he-cop.vb loc-to-drive-loc of car: he is in driving the car) (Maluleke 1998:51)

Locatives with copulative verbs require the prefix **le-** instead of **e-**, together with the suffix **-ini**: [le-ku-chayeleni]

With a future tense in the Infinitive:

- (16) Tiko ri-ta-tshik-is-a vatswari va yena [e-ku-ta-kum-a swakudya laha xikolweni]
 (people agr-fut-leave-caus-fv parents of her loc-to-fut-find-fv food here at-
 school: the people will make his parents to leave in coming to find food here at
 school) (Maluleke 1981:53)

The Infinitive (e-ku-ta-kuma] has a locative prefix with a future tense morpheme **ta**, but no locative suffix [-ini].

With objectival agreement in the Infinitive:

- (17) Ndzi-ya [e-ku-n'wi-pfux-el-eni]
 (I-go loc-to-him-wake-up-appl-loc: I am going to wake him up) (Ngobeni
 2003:89)

The AgrO morpheme [n'wi] appears as a prefix in the locative Infinitive.

Descriptive possessives

The construction known as the descriptive possessive makes use of a possessive [-a]

- (18) [lapi [r-a [ku-rhunga hembe]
 (material agr-of to-make shirt: material to make a shirt)

The construction above is a DP with the noun **lapi** as head. Together with **lapi** a descriptive is use [ra [ku-rhunga hembe]. The head is the possessive **ra** which has an agreement morpheme **ri** of **lapi** together with the possessive [-a]. Its complement is the Infinitive [ku-rhunga hembe]. The possessive [-a] has no possessive meaning but it is used to bind the Infinitive to the head noun **lapi** to effect a description of **lapi**.

The possessive **ra** above mostly coalesces with the Infinitive morpheme **ku-** to give **ro**: [ra-ku → ro]:

- (19) lapi ro-rhunga hembe

Some features of the Infinitive complement above will be highlighted below.

The Infinitive has a descriptive verb:

- (20) a. A-vula hi [rito [r-o-khwaxa]
(he-said with voice agr-of.to-be.rough: he said with a rough voice)
(Maluleke 1998:31)
- b. A-vuyela hi [rito [r-o-hola]
[he-return with voice agr-of.to-be.cool: he returned with a cool voice)
(Maluleke 1998:74)
- c. [vanghana [v-o-homboloka]
(friends agr-of.to-be.crooked: crooked friends) (Ngobeni 2003:48)
- d. [xitulu [x-o-tlakuka]
(chair agr-of.to-be.high: a high chair) (Maluleke 1998:75)

The verbs in the Infinitive above are mostly state verbs and they are used extensively in describing constructions as above where other languages may use adjectives.

The Infinitive has the structure of any CP without an overt subject.

- (21) a. [rikari [r-o-khutula malepfu]
(razor agr-of.to-shave beard: a razor to shave a beard)
- b. A-ndzi-t-is-el-a [mapapila [y-o-huma eka vatswari]
(past-I-come-caus-appl.fv letters agr-of.to-come from-parents: I brought letters from the parents) (Ngobeni 2003:81)
- c. Ku-sala ntsena [miehleketo [y-o-lava [ndhawu [y-o-etlela] na ku-endla
[pulani [y-o-hlota swakudya]
(There-remain merely thoughts agr-of.to-want place agr-of.to-sleep and to-make plan agr-of.to-hunt food: there merely remains thoughts of wanting a place to sleep and to make a plan to hunt for food) (Risiba 2000:60)

Any CP may appear as an Infinitive as above with a descriptive function with regard to a head e.g. [-khutula malepfu] (shave beard): a verb **khutula** with an internal argument **malepfu** in the object position. Such CPs without overt subjects may even include deficient verbs:

- (22) A-vula a-khubumet-ile mahlo onge i [munhu [w-o-ka [a-nga-von-i kahle]
(He-speak he-cover-perf eyes as.if it.is person agr-of.to-certainly he-neg-see-neg well: he said and covered his eyes as if he is a person who certainly does not see well) (Maluleke 1998:50)

The deficient verb **ka** appears in the Infinitive above and it is followed by a clause in the dependent mood. A condition for all Infinitives to appear in these constructions with a possessive [-a-] is that they must contribute to the adjectival descriptive reference given to their heads.

Control of the Nominal Infinitive

Subject and object of Infinitive

The nominal Infinitive which appears in the subject or object position in (2) and (3) above has arbitrary control unless the Infinitive appears with a possessive construction as in (3a):

[Ku-xonga [ka [yona]
(to-be.beautiful of her)

The possessive pronoun which appears after the possessive **ka** will be the prepositional controller of the Infinitive **ku-xonga**. The Infinitives in no. (2) and (3b) which have arbitrary control may also have prepositional control if a possessive construction appears with them, e.g. as in (2a):

[Ku-tirha [ka [mina] ku-lunghile
(to-work of.me it-is-in-order)

The pronoun **mina** as complement of **ka** will be the prepositional controller of the Infinitive.

Complement of a preposition

With the preposition [**ni**]:

See no. (4): only arbitrary control. Prepositional control of the Infinitive is possible if the Infinitive with **ni** appears with a prepositional phrase. The complement of the possessive **a** will be the prepositional controller as above. Compare (4) with the sentence below:

Ku-tirha ngopfu a-swi-fan-i [ni [ku-tirha [ka [mina]
(To work very much is not the same as working of me)

The possessive pronoun **mina** above is the controller of the Infinitive.

With the preposition [**hi**]:

In sentences (5, 6, 8, 9) there are subject control of the Infinitive clause, e.g. no. (5):

Vatswari va-sungurile [hi [ku-kamberiwa]
(Parent began by being examined)

The DP **vatswari** is the controller of the Infinitive. In sentence (7) there is arbitrary control of the Infinitive because of the presence of an expletive **ku** with pro in the subject position of the matrix clause.

In sentences (10) and (11) the controller of the Infinitive is also the subject of the matrix clause, i.e. pro with agreement of class 2 (**va-**) in (10) and pro with agreement of class 1 (**a-**) in (11).

Nominal modifiers:

There is no control of the Infinitive.

Locative Infinitives:

Locative Infinitives denote generalized locations in which many people may be present with some event or action e.g. [ku-tsaris] (registration) in (14). The process of registration of people is a general activity of a community and no specific controller can be recognized as the controller of such an Infinitive.

Descriptive possessives

This Infinitive denotes a description of the head noun of the DP and as such no controller is evident as in e.g. no. (20):

[rito [r-o-khwaxa] (rough voice)

CLAUSAL INFINITIVES

See i.a. Du Plessis, Visser (1992:93) for a list of the properties of clausal infinitives which distinguish them from nominal Infinitives. The control theory will also be invoked more systematically to establish the antecedent of the Infinitive (see Du Plessis, Visser 1992:97-98).

The clausal Infinitive with Intransitive verbs

Intransitive motion verbs

Intransitive motion verbs may appear with Infinitival clauses. In such cases the following conditions may apply:

- a. The locative phrase which appears with motion verbs may be implied or it may be present.
- b. The Infinitive clause usually has a future temporal morpheme such as [ya] or [ta].
- c. The motion verb may appear with an applicative suffix to indicate purpose:

[Motion verb + Locative phrase] + [Infinitive clause with temporal morpheme [ta] or [ya]:

- (1) a. [Ndz-aha-ya [hala ka N'wa-Xilorana] [ku-ya-kombela mugayo]
(I-still-go there to N'wa-Xilorana to-go-ask mealie-meal: I am still going there to N'wa-Xilorana to go and ask for mealie-meal) (Rikhotso 1984:7)
- b. [A-va-y-ile [ebangi] [ku-ya-teka mali]
(Past-they-go-perf to-bank to-go-draw money: they went to the bank to draw money) (Rikhotso 1984:7)

In both the (a) and (b) sentences above the motion verb is [ya] (go) and it appears with a locative phrase such as [ebangi] (to-bank) in (b). The Infinitive clause with the morpheme [ku-] has a temporal morpheme [ya] in both (a) and (b). The controller of the Infinitive above is the subject of the matrix clause, i.e. **ndzi** with pro in (a) and **va** with pro in (b).

[Motion verb without locative phrase] + [Infinitive clause with a temporal morpheme]

- (2) a. [A-ndzi-y-ile] [ku-ya-n'wi-lela]
(past-I-go-perf to-go-him-say.goodbye: I went to go and say goodbye to him)
- b. [A-va-t-ile] [ku-ta-phalala]
(past-they-come-perf to-come-assemble: they came to come and assemble)

The motion verb in (a) above is [ya] (go) and it is [ta] (come) in (b). No locative phrase appears with these motion verbs. The Infinitive clause with the morpheme [ku-] has a temporal morpheme **ya** in (a) to coincide with the motion verb [ya] in (a), but in (b) the temporal morpheme is [ta] to coincide with the motion verb [ta]. The controller of the Infinitive is also an empty pro with agreement of 1ps in (a) (ndzi) and class 2 (va) in (b).

The motion verb may occur with various other phrases together with the Infinitive:

- (3) [A-a-suk-ile-nyana [na vaongori vambirhi] ku-ya-ti-pfuna endzhaku ka magungu y-o-tlhumu]
 (Past-agr 1-go.away-perf-dimin with nurses two to-go-refl-help behind of bushes agr-of.to-be.dense: she went a little way away with two nurses to go and relieve herself in dense bushes)

The motion verb above is **suka** (go away) which appears with a suffix **-ile** of the perfect tense and **-nyana** which is a diminutive suffix. There is a PP with **na** as head after the verb followed by an Infinitive clause with a temporal morpheme **ya**. The controller of the Infinitive is the subject of the verb **suka** which is a pronoun in agreement with **a** of class 1.

Motion verb with an applicative morpheme:

- (4) a. [Va-t-el-e [ku-ndzi-byela leswaku ndzi-teka nsati wun'wana]
 (They-come-appl-perf to-me-tell that I-marry woman other: they came to tell me that I am marrying another woman)
- b. [Va-swi-kot-ile [ku-tsutsum-el-a [ku-ya-foyinela Black Maria]
 (They-it-able-perf to-run-appl-fv to-go-phone-appl Black Maria: They were able to run to go and phone for a Black Maria) (Risiba 2000:3)

The motion verb in (a) above is **ta** (come) and in (b) it is **tsutsuma** (run). In both cases they appear with an applicative morpheme, i.e. [-t-el-] in (a) and [-tsutsumel-] in (b).

The applicative morpheme refers to the purpose of the motion verbs. No locative phrase appears above and the temporal morpheme **ya** or **ta** is optional, i.e. it is absent in (a) but present in (b) in [ku-**ya**-foyi-nela]. The controller of the Infinitive is pro with agreement of class 1 (**va-**) in both (a) and (b).

Intransitive psych verbs

Infinitival clauses may appear with intransitive psych verbs. The experiencer and also the controller of the Infinitive clause is usually the subject of the clause with these verbs. These psych verbs may alternatively appear with an applicative suffix [-el-] with an Infinitival clause as complement. In such cases the applicative suffix refers to purpose.

Psych verbs without an applicative suffix

- (5) a. Ndz-a-vilela [ku-twa leswi]
 (I-pres-sad to-hear this: I am sad to hear this)

- b. Ndz-a-nyama [ku-vulavula la]
(I-pres-shy to-speak here: I am shy to speak here)
- c. Ndz-a-hlamala [ku-hlangana na yena]
(I-pres-surprised to-meet with her: I am surprised to meet her)

In the sentences above, the psych verb appears with a present tense morpheme [-a]. This morpheme usually appears to indicate focus on the verb. The psych verb may however appear in any tense e.g. the perfect tense in the sentence below:

- (6) Ndzi-tsak-ile [ku-twa mahungu]
(I-glad-perf to-hear news: I am glad to hear the news)

The perfect tense morpheme [-ile] above does not indicate a past tense. It refers to a perfective aspect which indicates a state.

In the sentences below the psych verbs appear with a past tense morpheme [a-]:

- (7) a. A-a-chava [ku-ala loko hosi ya yena yi-n'wi-vitana]
(past-agr1-fear to-refuse when chief of him he-him-call: he was afraid to refuse when his chief calls him) (Maluleke 1998:70)
- b. A-a-ntlokola [ku-ko [ku-tlhambuka ni marhi]
(past-agr1-express.annoyance to-def.vb to-be.splashed with saliva: he expressed annoyance to be splashed ultimately with saliva) (Maluleke 1998:33)

The controller of the Infinitive in (5, 6, 7) is the subject of the matrix clause, e.g. pro with agreement of 1ps (ndzi-) in (5a-c).

Psych verbs with an applicative suffix

- (8) a. Ndzi-nyam-el-a [ku-vulavula la]
(I-shy-appl-fv to-speak here: I am shy to speak here)
- b. Ndzi-tsak-er-ile [ku-twa mahungu]
(I-glad-appl-perf to-hear news: I am glad to hear the news)
- c. *Ndzi-hlamal-el-a [ku-hlangana na yena]
(I-surprised-appl-fv to-meet with her)

The applicative suffix may not appear with all psych verbs followed by an Infinitive clause as (c) above shows. In (a) and (b) the psych verbs do allow the applicative in order to emphasize the meaning of purpose conveyed by the Infinitive clause. The controller of the Infinitive is again pro with agreement of 1ps (ndzi-) in (8a-b).

Intransitive change of state verbs

- (9) Lori a-ri-hlwel-anga [ku-ta-teka ntsumbu wa tatana]
(Lorry neg-agr-be.late-neg to-come-take corpse of my-father: the lorry is not late to come and take the corpse of my-father)

The controller of the Infinitive is [lori] above. The change of state verb [-hlwel-a] (be late, delay) above appears in the negative of the perfect tense. In the positive the perfect tense will have the suffix [-ile]:

- (10) Ndzi-hlwer-ile [ku-pfuka]
(I-late-perf to-get-up: I am late to get up)

In both sentences above the verb has undergone a change of state so that one is left with a state from a process.

Intransitive existence verbs

- (11) a. Vavasati va-sala emutini [ku-sweka vuswa]
(Women agr-remain in-village to-cook porridge: the women remain in the village to cook the porridge)
- b. Ndzi-aha-hanya [ku-hava loyi a-nga-ku-kanganyisa-ka]
(I-still-live to-lack who agr-pot-you-deceive-RM: I am still alive to lack one who can deceive you)

The existence verb in (a) is [sala] (remain) with a locative phrase (emutini) and in (b) the verb is **hanya**, both followed by an Infinitive clause. The controller in (a) is [vavasati] and in (b) it is pro in agreement with 1ps (ndzi-).

Intransitive state verbs

There are various state verbs which may appear with Infinitival clauses. Such verbs may have as subject an empty pronominal with an agreement morpheme of class 8 (swi) which usually refers to some previous discourse. In such cases the Infinitive has no obvious controller:

- (12) a. Sw-a-nonohwa [ku-twisisa leswi]
(agr-pres-difficult to-understand this: It is difficult to understand this)
(Ngobeni 2003:47)
- b. Sw-a-antswa [ku-ya-tshama la]
(agr-pres-better to-go-live here: It is better to go and live here)

The [-a-] morpheme above is a present tense morpheme with added focus on the verb.

The applicative suffix [-el-] may appear with state verbs as above, but the applicative has no influence on the Infinitive clause as in (a, b) above, but it is necessary to introduce a new object:

- (13) U-von-e leswaku [swi-ta-n'wi-nono] n'hw-el-a [ku-kuma ntirho kun'wana]
(He-see-perf that it-will-him-be.difficult-appl to-find work another-place: he saw that it will be difficult for him to find work in another place)

The applicative [-el-] is necessary for the pronoun represented by the agreement morpheme [-n'wi-] above. However, the applicative also makes it possible for the Infinitive to have a specific controller, i.e. the pronoun with [-n'wi-] above. In this instance we then have object control.

THE CLAUSAL INFINITIVE WITH TRANSITIVE VERBS

Transitive verbs readily appear with Infinitival clauses under certain conditions of which the following is the most specific:

- a. Transitive verbs without their objects frequently may appear with an Infinitive clause.
- b. There is no real exclusion of such transitive verbs without their objects.
- c. Two classes of verbs are frequently encountered with Infinitives, i.e. psych verbs and aspectual verbs.
- d. The subject of these transitive verbs without their objects will be the controller of the Infinitive.
- e. Some transitive verbs may appear with their objects followed by an Infinitive clause although this is not frequently attested.
- f. Such objects of transitive verbs may appear with a descriptive possessive, i.e. a possessive morpheme [-a-] with an infinitive morpheme [-ku-] which usually coalesce to [-o-].

Transitive verbs without their objects

1. Psych verbs

[-lava] (want)

- (1) a. Ndzi-lava [ku-ku-rhuma evhengeleni]
(I-want to-you-send to-shop: I want to send you to the shop)
- b. A-ndzi-lav-i [ku-kamber-iw-a]
(Neg-I-want-neg to-examine-pass-fv: I do not want to be examined)
(Maluleke 81:52)

The subject of **lava** above, i.e. the pronoun with the morpheme (**ndzi**) is the controller of the Infinitive.

[-rhandza] (like)

- (2) Ndzi-rhandza [ku-suka [ndzi-tw-ile ntiyiso eka wena]
(I-like to-merely I-hear-perf truth from you: I like to have merely heard the truth from you)

The controller of the Infinitive is again the pronoun with **ndzi**. The Infinitive **ku-** appears with a deficient verb [-suka] which has as complement a clause within the dependent mood (ndzi-twile).

[-navela] (wish)

- (3) [a-a-avel-a [ku-ku-vona]
(Past-agr1-wish-fv to-you-see: he wished to see you)

The controller is the pronoun coindexed with the morpheme [-a]- of class 1 above.

- (4) **[-ringeta]** (try)
- a. A-ringeta [ku-huma]
(She-tried to-go-out)
 - b. A-a-ringeta hi matimba [ku-va-dyondzisa hi ta vutomi endzhaku ka rifu]
(Past-agr1-try with strength to-them-teach about of life after of death: She tried with strength to teach them about life after death)

The pronoun with agreement **a** of class 1 in both (a) and (b) above is the controller of the Infinitive.

- (5) **[-kota]** (be able)
- a. Ndzi-ta-kota [ku-tsala laha ka khadi ya wena ku-nyika vumbhoni loko u-rhum-er-ile]
(I-will-be.able to-write here in card of you to give evidence when you-send-appl-perf: I will be able to write here in your card to give evidence when you have sent for it) (Rikhotso 1984:9)
 - b. A-a-nga-swi-kot-i [ku-hlaya]
(past-agr1-neg-agr8-be.able-neg to-read: she was not able to read) (Maluleke 1998:33)

The controller of the Infinitive in (a) is the pronoun with **ndzi** and in (b) the pronoun with [a] of class 1. An objectival agreement morpheme **swi** of class 9 appears in (b): this agreement morpheme is frequently used to refer to an Infinitival clause as above.

- (6) **[-kanakana]** (hesitate, doubt)
[A-ndzi-kanakan-anga [ku-va-byela]
(neg-I-hesitate-neg to-them-tell: I did not hesitate to tell them) (Risiba 2000:60)
- (7) **[-rivala]** (forget)
[Ndzi-lo-rivala [ku-mi-byela]
(I-simply-forget to-them-tell: I simply forgot to tell them) (Lubisi 2008:1)

In both (6) and (7) the controller is pro with agreement of 1ps (**ndzi**-).

Aspectual verbs

- (8) **[-heta]** (finish)
- a. A-wu-swi-tiv-i leswaku [a-va-si-het-a [ku-hlamusela]
(Neg-you-agr8-know-neg that neg-agr2-al-ready-finish-fv to-explain: Don't you know that they have not as yet finished to explain?) (Maluleke 1998:33)
 - b. Loko [a-heta [ku-hlaya] w-o-huma a-famba
(When agr1-finish to-read, agr1-just go-out agr1-walk-away: when she has finished to read, she just went out and walked away)
 - c. Ndz-aha-ku-heta [ku-ya-katinga]
(I-just-finish to-roast (in pot) (I have just finished to roast (in the pot) (Rikhotso, 1984:21)

The controller of the infinitive is a pronoun in (a,b,c), coindexed with agr of class 2 in (a), agr of class 1 in (b) and agr of 1ps in (c). The verb **heta** is the causative counterpart of the verb **hela** (to be finished).

(9) **[-sungula]** (begin)

- a. A-sungula [ku-kwalala hi nhlundzuko]
(agr1-begin to-be-pale with worry: he began to be pale with worry) (Maluleke 1981:10)
- b. Timhaka a-ti-sungur-ile [ku-onheka eka mukhegulu]
(Things past-agr10-begin-perf to-go-wrong for old woman: things began to go wrong for the old woman) (Mbhombi 1975:13)

The controller of the Infinitive is the pronoun with agr of cl. 1 in (a) and the noun **timhaka** in (b). The infinitive verb in (b), i.e. **onheka** has a suffix [-ek-] in [-onh-ek-], a neuter-passive suffix.

(10) **[-kondzelela]** (persevere)

A-ta-kondzelela [ku-fik-el-a kwihi?]
(agr1-fut-persevere to-arrive-appl-fv where: he will persevere to arrive where?)
(Ngobeni 2003:47)

The controller is the pronoun with agr of class 1. The Infinitive verb has an applicative suffix [-el-] because of the presence of the locative interrogative **kwihi**.

(11) **[-tshika]** (cease)

[U-tshika [ku-hlamba]
(agr1-cease to-wash: he ceases to wash) (Risiba 2000:2)

The controller is the pronoun with agr of class 1.

Creation verbs

(12) **[-tirha]** (work)

[H-o-tirh-a [ku-ringeta [ku-dzudza vusiwana]
(We-just-work-fv to-try to-shake poverty: we merely work to try and shake off poverty)

The pronoun with first person plural agr is the controller of the Infinitive.

Communication verbs

(13) **[-kombela]** (ask)

[Hi-ta-rhum-el-a ntsuni eka Shirindzi [ku-ya-kombela [ku-rival-er-iw-a]
(We-fut-send-appl-fv messenger to Shirindzi to-go-ask to-forgive-appl-pass-fv:
We will send a messenger to Shirindzi to go and ask to be forgiven) (Ngobeni 2003:48)

The controller of the Infinitive clause [ku-rivaler-iwa] is the pronoun with agr of the first person plural [hi-].

Transitive verbs with their objects

Communication verbs

(14) [-vitana] (call)

Manana u-vitana [nhwanyana] [ku-ta-ka mati]
 (My.mother agr1-call girl to-come-draw water: my mother calls the girl to come and draw water)

The object of the verb **vitana** is an animate noun **nhwanyana** (girl) and she is the controller of the infinitive clause. If a communication verb accepts an inanimate noun as part of the object, the controller will be the subject of the verb:

(15) Sayina [iphepha] [ku-komba leswaku u-ti-yim-is-er-ile [ku-ta-hakela]
 (Sign paper to-show that you-refl-stand-caus-appl-perf to-come-pay: Sign the paper to show that you have stopped by yourself to pay) (Rikhotso 1984:10).

The subject of the imperative **sayina** (2nd pers sing) is the controller of the Infinitive.

State verbs

[-tsandza] (be too difficult for)

(16) a. [K-aha-ri na [xilo xin'we] [x-aha-ndzi-tsandza-ka [ku-xi-tw-is-is-a]
 (Expl-still-cop.vb with thing other agr 7-still-me-too-difficult to-agr 7-understand: there is still another thing which is still too difficult for me to understand) (Maluleke 1998:37)

b. Sindza leri ri-nga-tsandza [vavanuna] [ku-anyula]
 (Bracelet this agr 5-pot-too-difficult men to-open out: This bracelet may be too difficult for the men to open) (Rikhotso 1984:10)

The pronoun with the morpheme **ndzi** (me) in (a) is the controller of the Infinitive, i.e. object control. In (b) the controller is **vavanuna** (men), thus also object control.

The subject of **tsandza** may be a discourse pronoun with agr of class 8 (swi):

(17) Swi-ta-n'wi-tsandza [ku-ti-ondl-el-a n'wana loyi]
 (agr8-fut-agr1-too-difficult to-refl-rear-appl-fv child this: It will be too difficult for him to look after this child himself)

The object controller is the pronoun with agr **n'wi** of class 1.

Verbs of removing

[-teka] (take)

(18) Manana u-teka n'wana [ku-ya-n'wi-etler-is-a]
 (my.mother she-take child to-go-her-sleep-caus-fv: My mother takes the child to make her sleep)

The subject controller of the Infinitive is **manana** (my mother).

The verb "help"

The verb **pfuna** (help) usually has two controllers, i.e. the subject and object of the verb **pfuna**:

- (19) Mi-ta-ndzi-pfuna [ku-hlamula]
 (Your (pl)-fut-me-help to-answer: you will help me to answer) (Rikhotso 1984:10)

The subject pronoun with agr **mi** and the object pronoun with agr **ndzi** are the controllers of the Infinitive. The object may not be present as a DP but it may be semantically interpreted as a reflexive through the reflexive morpheme [-ti-]:

- (20) Vanhu v-o-tala v-o-ta-ti-nyik-et-a [ku pfuna [ku-rhwala nhundzu]
 (People agr2-infin-many agr2-still-fut-refl-give-caus to-help to-carry goods:
 Many people still devote themselves to help to carry the goods)

The issue above is the controller of the Infinitive clause [ku-rhwala nhundzu] (to carry the goods). The verb **pfuna** has a controller **vanhu** (people) who with some unknown people are helping to carry the goods. These controllers will also be in charge of [ku-rhwala nhundzu].

In some cases the controller of the Infinitive may not be present at all, i.e. in cases where the verb **pfuna** appears with a discourse pronoun with agr of class 8:

- (21) A-swi-pfun-i nchumu [ku-vutis-el-a loyi a-endl-e-ke mhaka ya kona]
 (Neg-agr8-help-neg nothing to-ask-appl-fv who agr1-do-perf-rm thing of there: it will not help anything to ask for the one who did the thing of there)

Perception verbs

[-vona] (see)

- (22) U-tshama u-n'wi-vona [wanuna [wo-pindzuka ejele lembe na lembe?]
 (You-often you-him-see man agr1.poss.infin-stay in-jail year and year? Do you often see a man who stays put in jail year after year?)

The phrase [wo-pindzuka] above represents a descriptive possessive phrase in which the agreement morpheme, the possessive [-a-] and the Infinitive morpheme [-ku-] have coalesced to form **wo** from agr of class 1 **u-** plus possessive **-a-** plus Infinitive **-ku-**, i.e. **u-a-ku** → **wo-**. The controller of the infinitive is **wanuna** (man) which is the head of the object phrase (wanuna wo-pindzuka). **Wanuna** then represents the object controller of the Infinitive.

Psych verbs

[-twa] (feel)

- (23) Vana na vona va-ka va-twa timbilu [ku-vava]
 (Children also they agr-certainly they-feel hearts to-be-sore: the children certainly also feel their hearts to be sore)

The object controller of the Infinitive [ku-vava] is **timbilu** (hearts).

Verbs of change of possession

[-xava] (buy)

- (24) U-nga-xav-i [timhaka [to-ka [u-nga-ti-tiv-i]
 (You-neg-buy-neg things agr-poss-infin-certainly you-not-agr10-know-neg: you
 must not buy things which you certainly do not know)

The Infinitive is present in a descriptive possessive phrase in [to-ka], i.e. agr of class 10 **ti** plus possessive **a** plus infinitive **ku**: **ti-a-ku** → **to-**. The controller is the pronoun with agreement **u** of the second person singular, i.e. subject control.

Passive verbs

For an overview of the passive construction in Xitsonga, see i.a. Du Plessis, Nxumalo, Visser (1995:91-99).

The matrix verb has the passive morpheme [-iw-]**1. With the expletive [ku-]**

- (25) [Ku-sungur-iw-a [ku-hlamba mavoko] (expl-begin-pass-fv to-wash hands: there
 is being begun to wash hands) (Risiba 2000:2)

In the sentence above the verb **sungula** (begin) appears with the passive morpheme [-iw-]. The subject position of such passive verbs is always empty in a non-argument position. The missing subject argument is implied. The expletive or existential empty pronoun occurs above. This empty pro is coindexed with expletive agreement which will appear as [ku-], i.e. [pro_i ku_i-]. The Infinitive clause [ku-hlamba mavoko] (to wash the hands) will thus have no controller.

2. With a co-indexed argument

- (26) a. [Ndzi-rhum-iw-ile hi mulanguteri wa doroba leri [ku-ta-khiyela yindlu leyi]
 (I-send-pass-perf by manager of town this to-come-lock house this: I was
 sent by the manager of this town to come and lock up this house)
 (Riihotso 1984:12)
- b. [U-komber-iw-ile [ku-hundzuluxa marito ya Xiphopha-mberha ya-vuya eka
 Xitsonga]
 (he-ask-pass-perf to-change words of Xiphopha-mberha they-return to
 Xitsonga: he was asked to change the words of Xiphopha-mberha to
 Xitsonga) (Maluleke 1998:76)
- c. Nyangwa wun'wanyana a-wu-nghena [endlwini [leyi [a-ndzi-komb-iw-e
 [ku-etlela ka yona]
 (Door certain-one past-agr3-enter in-house rel.det past-I-show-pass-perf
 to-sleep in it: a certain door entered into the house which I was shown to
 sleep in) (Risiba 2000:30)

The empty subject argument above in (a-c) is filled by an empty pronoun coindexed with agreement of the first person singular in (a) and (c), i.e. **ndzi** and with agreement of class 1 in (b) above i.e. [u-]. The basic structure in all the sentences above will be as follows:

[pro_i verb-iw pro_θ [pro_θ verb]

In (a-c) above the Infinitive clause will be controlled by the empty pronoun above which appears with agreement as shown, i.e. 1ps and class 1.

3. With a co-indexed argument and an applicative verb

- (27) a. Mi-nga-rival-i leswaku [na n'wina vatswari [mi-langut-er-iw-ile [ku-tshinya vana va n'wina loko va-ri ni miharihari]
(You-neg-forget-neg that also you parents you-look-appl-pass-perf to-admonish children of you when they-cop.vb with foolish-behaviour: you must not forget that also you the parents are expected to admonish your children when they behave foolishly) (Maluleke 1998:33)
- b. [A-va-rhum-er-iw-a [ku-n'wi-xanisa] [past-they-send-appl-pass-fv to-her-bother: they were sent to bother her)
- c. [Vakresti a-va-pfumel-er-iw-i [ku-teka vasati vambirhi]
(Christians neg-agr2-allow-appl-pass-neg to-marry women two:
Christians are not allowed to marry two wives)

The applicative suffix [-el-] is added to the matrix verb above to allow a purposive reading with the Infinitive clause, e.g. no. (b) above:

(28) [-rhum-er-iw [ku-]

The control of the Infinitive is the same as in par. 2 above, i.e. the subject of the matrix verb which is an empty pronoun in (a) and (b), coindexed with second person plural agreement **mi** in (a) and class 2 agreement **va** in (b):

(29) [pro_i verb-iw pro_i [pro_i verb]

The controller of the Infinitive clause in (c) is **vakresti** (Christians):

(30) [vakresti_i verb vakresti_i [vakresti_i verb]

4. The Infinitive verb has the passive morpheme [-iw-]

- (31) a. [Hi-ta-rhum-el-a ntsumi eka Shirindzi [ku-ya-kombela [ku-rival-er-iw-a]
(We-will-send-appl-fv Messenger to Shirindzi to-go-ask to-forget-appl-pass-fv: we will send a Messenger to Shirindzi to go and ask to be forgiven) (Ngobeni 2003:48)
- b. [A-yim-el-a [ku-komb-iw-a xitulu]
(Agr1-stand-appl-fv to-show-pass-fv chair: he waited to be shown a chair)
(Maluleke 1998:67)
- c. [A-ndzi-lav-i [ku-kamb-er-iw-a]
(Neg-I-want-neg to-examine-appl-pass-fv: I do not want to be examined)
(Maluleke 1981:52)

The controller of the Infinitive clauses is the empty pronoun with agreement of the first person plural (**hi-**) in (a), agreement of class 1 (**a-**) in (b) and agreement of the first person singular (**ndzi-**) in (c). This pronoun will appear in structures such as the following:

(32) [pro_i verb [p̤r̤e_i V-iw p̤r̤e_i]

In (a) above there are two infinitive clauses with the Infinitive morpheme [ku-] but both of them are controlled by the empty pro with agreement of the first person plural [hi-].

5. The matrix clause and the Infinitive have the passive morpheme [-iw] on the verb

(33) [A-ndzi-rhum-iw-angi [ku-ta-hlamuser-iw-a leswi nga-ku-tsandza ku-hakela]
(Neg-I-send-pass-neg to-come-explain-pass-fv rel.det past-you-difficult to-pay: I was not sent to come to be explained that which was too difficult for you to pay)
(Rikhotso 1984:13)

The control of the Infinitive is the empty pronoun with agreement of the first person singular (**ndzi-**) above. The structure of the clause with the two passive verbs is as follows:

(34) [pro_i verb-iw p̤r̤e_i [p̤r̤e_i V-iw p̤r̤e_i]

Neuter-passive verbs

Clauses with neuter-passive verbs with the derivational morpheme [-**ek-**] have the same syntax as clauses with passive verbs with the suffix [-w-]. There are differences however: clauses with neuter-passive verbs have no implicit arguments as in the case of passive verbs. Secondly there are semantic differences: neuter-passive verbs may refer to ability, value, obligation and state which passive verbs do not exhibit.

Neuter-passive verbs may occur with Infinitives in which case there will be subject control of the Infinitive.

[-**tsandz-ek-a**] (be unable) (derived from [-tsandza] (be too difficult for)

- (35) a. [Va-tsandz-ek-ile [ku-ti-khoma]
(they-difficult-ek-perf to-refl-seize: they were unable to control themselves) (Maluleke 1998:34)
- b. [A-a-tsandz-ek-a [ku-yimbelela]
(past-agr1-difficult-ek-fv to-sing: he was unable to sing)
- c. Hikokwalaho ntirho wa mina wu-tsandz-ek-a-ka ku-ya emahlweni
(It-is-because-of work of me agr-difficult-ek-fv-rm to-go forward: it is because of my work which is unable to go forward)

In (a) the subject controller is the pronoun coindexed with agr of class 2 (**va**) and in (b) it is the pronoun with the agreement of class 1 (**a**). In (c) the controller is [ntirho wa mina] (my work).

[-**hlul-ek-a**] (unable) (derived from **hlula** (overcome, surpass))

- (36) a. [Ndzi-hlul-ek-a [ku-ku-kuma]
(I-overcome-ek-fv to-you-find: I am unable to find you) (Rikhotso 1984:22)

- b. Va-tshika va-hlul-ek-a [ku-hundz-el-a eka ntangha mbirhi mi-nga-hlamali]
 (They-cease they-overcome-ek-fv to-pass-appl-fv to friends two you-neg-astonished-neg: They ceased to be overcome (to be unable) to pass to two friends while you were not astonished) (Maluleke 1998:34)

In both (a) and (b) the subject controller is the pronoun with agreement of first person singular in (a): **ndzi**, and agreement of class 2 (**va**) in (b).

[-boh-ek-a] (be bound) (derived from **boha** (bind))

- (37) Va-ta-boh-ek-a [ku-thola vahirhi]
 (Agr2-fut-bind-ek-fv to-hire workers: they will be bound to hire workers)
 (Rikhotso 1984:9)

The subject controller is the pronoun with agreement of class 2, i.e. **va**.

[-endl-ek-a] (be done) (derived from **endla** (do))

- (38) [Swi-nga-ka [swi-nga-endl-ek-i [ku-landzula]
 (Agr8-pot-certainly agr8-neg-do-ek-neg to-deny-guilt: it can certainly not be done to deny guilt) (Ngobeni 2003:48)

The subject above is the discourse pronoun with agreement of class 8 (**swi**) and thus there is no control of the Infinitive.

[-khumb-ek-a] (be touched) (derived from **-khumba** (touch))

- (39) [U-khumb-ek-ile [ku-thumba leswaku Nwa-Khwidyana u-vulavula tani-hi mufambiri]
 (agr1-touch-ek-perf to-find that n'wa-Khwidyana agr1-speak like leader: he was touched to find that N'wa-Khwidyana speaks like a leader) (Maluleke 1998:68)

The controller is the empty pronoun with agreement of class 1 (**u-**)

[-karhat-ek-a] (be worried) (derived from **-karhata** (worry))

- (40) [Va-karhat-ek=-ile [ku-vona mihlovohlovo ya mabyalwa kun'we ni mabodhlela]
 (agr2-worry-ek-perf to-see types of beers together with bottles: they were worried to see types of beers together with the bottles) (Maluleke 1998:78)

The controller is the empty pronoun with agreement of class 1 (**va-**).

[-susumet-ek-a] (be pushed) (derived from **-susumeta** (push))

- (41) [U-susumet-ek-ile [ku-cukumeta n'wana a-n'wi-celela]
 (Agr1-push-ek-perf to-get-rid-of child she-her-bury: she was pushed to get rid of the child and bury her) (Ngobeni 2003:86)

The controller is the empty pronoun with agreement of class 1 (**u-**).

Causative verbs

See i.a. Du Plessis, Nxumalo, Visser (1995:46) for the causative suffix [-is-] in Xitsonga. The effect of this suffix on a predicate is twofold:

- a new external subject argument;
- the real external subject argument becomes an internal argument of the causative predicate:

(42) [Vana] va-tsak-is-a [vatswari]
 (Children agr2-be.happy-caus-fv parents: the children make the parents happy)

[vana] is the new external argument and [vatswari] the old one.

The following issues need to be considered when Infinitive clauses appear with causative predicates:

New and old external argument:

- (43) a. U-tlaku-s-ile swandla a-ringeta [ku-n'wi-yim-is-a [ku-vulavula]
 (Agr1-lift-trans-perf hands agr1-try to-him-stand-caus-fv to-speak: he raised his hands and tried to stop him to talk) (Maluleke 1998:33)
- b. Marito lawa a-ndzi-hamba ndzi-ringeta ku-aka n'wana hi wona [u-n'wi-ar-is-ile [ku-ya-yingisa]
 (Words rel.det past-I-always I-try to-build child with them you-him-refuse-cause-perf to-go-listen: the words with which I always tried to build a child, you prevented him to go and listen) (Ngobeni 2003:48)

In (a) above the causative predicate is in an Infinitive clause [ku-n'wi-yim-is-a] (to stop him). This Infinitive is controlled by the subject of the two previous clauses which is an empty pronoun with agreement of class 1 i.e. [u-] and [a-]. The old external argument now appears as an empty pronoun, with agreement of class 1, i.e. [-n'wi-], which is an internal argument. This new internal argument is the controller of the Infinitive clause [ku-vulavula] (to speak) i.e. this is an instance of object control.

In (b) the new external argument of the causative is an empty pronoun with agreement of the second person singular [u-]. The new internal argument of the causative [-ar-is-] is the empty pronoun with agreement of class 1 [-n'wi] and this internal argument is the controller of the Infinitive clause [ku-ya-yingisa] (to go and listen), i.e. an instance of object control.

Expletive as new external argument with a new internal argument as object:

- (44) a. [Sw-a-ndzi-chav-is-a [ku-tirha laha]
 (expl-pres-1ps-fear-caus-fv to-work here: it is fearful to me to work here)
- b. [Sw-a-ndzi-loloh-is-a [ku-yima laha]
 (expl-pres-1ps-lazy-caus-fv to-wait here: it is discouraging for me to wait here)

In both (a) and (b) above the new external argument is represented by an empty expletive pronoun with agreement of class 8 (swi-). The new internal argument in both sentences is an empty pronoun with agreement of the first person singular (-ndzi-). This internal argument is the controller of the Infinitive clause, i.e. **ku-tirha** in (a) and **ku-yima** in (b). In both cases it is an instance of object control as above.

Expletive as new external argument with a locative phrase as the new internal argument:

- (45) a. [Sw-a-khorw-is-a [eka mina] [ku-ku-yingisa]
(expl-pres-be.convinced-caus-fv to me to-you-listen: it is convincing to me to listen to you)
- b. [Sw-a-viler-is-a [eka mina] ku-twa leswi]
(expl-pres-be sad-caus-fv to me to-hear this: it is sad to me to hear this)

All the sentences above with the expletive with [swi-] have psych verbs i.e. **chava** (fear), **lolo** (be discouraged) **kholwa** (be convinced) and **vilela** (be sad). The internal argument in (a) and (b) above is the locative phrase [eka mina] (to me) and this locative phrase is the controller of the Infinitive i.e. [ku-ku-yingisa] (to listen to you) and [ku-twa leswi] [to hear this). This locative controller is also dependent on psych verbs.

The internal argument of the causative predicate and the Infinitive is the same:

- (46) [Va-va-tshemb-is-a [ku-va-hol-el-a switsongo]
(They-them-hope-caus-fv to-them-pay-appl-fv small-things: they promise them to pay them something small)

The shared internal argument above is the empty pronoun with agreement of class 2, i.e. [-va-] (them). The controller of the Infinitive is the new external argument of the causative predicate **tshembisa**, i.e. an empty pronoun with agreement of class 2 [va-] (they) which is an instance of subject control.

Interrogative **yini** with causative predicates:

- (47) N'wana u-swi-kot-is-a ku yini [ku-famba a-nwa mabyalwa ni ku-dzaha mafole mi-ri kona n'wina vadyondzisi?]
(child agr1-agr8-be.able-caus-fv to what to-walk agr1-drink beers and to-smoke tobacco you-cop.vb present you teachers: how is it possible for the child to go about and drink beers and smoke tobacco while you are here, you the teachers?) (Maluleke 1998:33).

The new external argument **n'wana** (child) is the controller of the Infinitive with [ku-famba...], i.e. subject control. The interrogative above with **yini** (what) is highly idiosyncratic and may only appear with the meaning above with causative predicates.

The agreement with **swi** of class 8 above refers to the Infinitive clause.

Expletive external argument:

- (48) Mi-hleketa leswaku [a-swi-nyum-is-i [ku-famba ndzi-kombela migayo lomu mitini?]
[you-think that neg-expl-be.ashamed-caus-neg to-walk I-ask maize.meal here in-villages: do you think that it is not shameful to go about for me asking maize meal here in the villages?] (Rikhotso 1984:8).

The expletive empty pronoun with agreement of class 8 **swi** is also dependent here on psych verbs which appear as **nyuma** (be ashamed) above.

The control of the Infinitive with [ku-famba ...] is arbitrary but a controller with **ndzi** may be added to the causative verb as with the other psych verbs above.

Nominal Infinitives:

Nominal Infinitives are DPs and they may appear with causatives predicates like any other DP:

- (49) [U-sasek-is-a [ku-biha ka mbilu ya-kwe]
 (you-be.beautiful-caus-fv to-be.ugly of heart of-her: you make beautiful the ugliness of her heart)

[mbilu yakwe] (her heart) appears with the possessive **ka**. This possessive phrase occurs with the Infinitive [ku-biha] (to be ugly). The whole phrase is the new internal argument of the causative predicate [sasek-is-a] (make beautiful). The Infinitive [ku-biha] is controlled by the complement of the possessive **ka** i.e. [mbilu yakwe].

Reciprocal verbs

See Du Plessis, Nxumalo, Visser (1995:49) for an overview of reciprocal verbs in Xitsonga, and specifically the issue of argument binding in lexical items, and the complement of such verbs with the suffix [-**an-**], i.e. a PP with the prefix [**ni**] as head:

- (50) [Nhwana loyi] u-rhandz-an-a [ni [mufana loyi]
 (girl this agr-love-recipr-fv with boy this: this girl she-love-each other with this boy: this girl and this boy love each other)

Infinitive clauses may appear as complements of the preposition **ni** after reciprocal verbs. Such Infinitive clauses are interpreted as nominal Infinitives:

- (51) a. [U na [miri [lowu [a-wu-fan-el-an-a [ni [ku-leha ka yena]
 (Agr1 with body rel.det past agr3-resemble-appl-recipr-fv with to-be-long of him: he has a body which agree with his length)
- b. [Tata wa-kwe] a-nga-lav-an-i [na [ku-ya-tirha emadorobeni]
 (Father of-him agr1-neg-want-recipr-neg with to-go-work in-towns: his father and going to work in towns do not want each other)

In (a) above the nominal Infinitive [ku-leha ka yena] is controlled by the pronoun **yena**. In (b) the Infinitive [ku-ya-tirha] has no obvious controller because the subject [tata wakwe] and the Infinitive are reciprocally connected in argument binding with the verb [-lav-an-].

Infinitive clauses may also occur with reciprocal verbs as clausal Infinitives, i.e. without the preposition **ni** as above:

- (52) Va-endla mitlawa [va-tw-anan-a [ku-sweka] [hi [ku-siy-er-is-an-a]
 (Agr2-make groups agr2-hear-recipr-fv to-cook with to-leave.behind-appl-caus-recipr-fv: they make group and they agree to cook by making to leave over some for each other)

The controller of the Infinitive [ku-sweka] is the subject which is an empty pronoun with the agreement of class 2, i.e. [va-]. Monosyllabic verbs like **twa** above takes a reduplicated form of the reciprocal suffix, i.e. [-an-an-]. The reciprocal verb [-twanana]

has no influence on the presence of the Infinitive as in the case of Nominal Infinitives above.

Reflexive verbs

The reflexive refers to a construction where the subject and the object of a sentence relate to the same entity. See Du Plessis, Nxumalo, Visser (1995:51) for an overview of the reflexive in Xitsonga. In the case of Xitsonga the reflexive [-ti-] is found as a prefix of the verb:

- (53) Vana va-ti-rhamb-ile
(Children agr2-refl-invite-perf: the children invited themselves)
- (54) a. [Ndz-a-ti-nyunguvis-a [ku-va [ndzi-ri haleno]
(I-pres-refl-haughty to-be I-cop.vb here: I pride myself to be here)
- b. [A-ti-sindziza [ku-ka [a-nga-nyanyuk-i]
(agr1-refl-force to-eventually agr.1-neg-get.excited-neg: he forced himself not to get excited)

In both (a) and (b) the subject of the reflexive verb with [-ti-] is an empty pronoun with agreement of the first person singular (ndzi-) in (a) and agreement of class 1 (a-) in (b). These subjects are the controllers of the Infinitive clauses with [ku-] in (a) and (b).

With intransitive verbs the suffixes such as the causative and/or applicative are necessary for the reflexive because these suffixes make the intransitive verbs to be transitive.

- (55) a. Sayina laha phepheni ku-komba leswaku [u-ti-yim-is-er-ile [ku-ta-hakela]
(Sign here in-paper to-show that you-refl-stand-caus-appl-perf to-come-pay: Sign here in the paper to show that you have stopped yourself to come and pay) (Rikhotso 1984:10)
- b. [Ndzi-ti-lulam-is-el-e [ku-mi-t-is-el-a mundlwana]
(I-refl-be.right-caus-appl-perf to-you-come-caus-appl-fv day-after-tomorrow: I corrected myself to bring for you the day alter tomorrow) (Rikhotso 1984:22).

In both (a) and (b) the causative [-is-] and applicative [-el-] appear on the verb to allow the reflexive [-ti-], i.e. [ti-yim-is-el-] and [-ti-lulam-is-el-]. The subjects of these verbs are also the controllers of the Infinitive, i.e. the empty pronoun with agreement of the second person singular [u-] in (a) and first person singular [ndzi-] in (b).

Deficient verbs

There are various deficient verbs which may only appear with Infinitival clauses:

[-tlhela] (again)

- (56) [ku-tlhela [ku-rhomba] hi ku-rhula ko-hlamar-is-a
(To-again to-be-subdued it-is to-be-quiet agr-of-to-astonish-caus-fv: to again be subdued is to be astonishing quiet) (Nkondo 1986:100)

- (57) a. [-fanele] (must)
[U-fanele [ku-tsaka]
(You-ought to-be-glad)
- b. [Laha [mi-fanele-ke [ku-ettlela kona] [a-ku-fanel-angi [ku-tiv-iw-a hi mina]
(rel.det you-ought-rm to-sleep there neg-expl-ought-neg expl-know-pass-
tv by me: where you ought to sleep, it is not ought to be known by me)
(Rikhotso 1984:13)

[-hatlisa] (quickly)

- (58) [Ndzilo wu-ta-hatlisa [ku-khoma] loko ndzi lumeka]
(Fire agr-fut-quickly to-catch when I-light: The fire will quickly catch when I
light it) (Ngobeni 2003:84)

[-ko] (until)

- (59) [A-ntlokola [ku-ko [ku-tlhambuka ni marhi]
(He-annoy to-until to-be-splashed with saliva: he expressed annoyance
until splashed with saliva) (Maluleke 1998:33)

Coordination

Infinitives may appear in coordinated CPs in two ways:

Two or more Infinitival clauses:

- (60) a. [N'wana u-swi-kot-is-a ku yini [ku-famba a-nwa mabyalwa [ni] ku-dzaha
mafole mi-ri kona n'wina vadyondzisi?]
(child agrs-agro-able-caus-fv in what to-walk agrs-drink beers and to-
smoke tobaccos you-cop.bv present you teachers: how is a child able to
go about drinking beers and smoking tobaccos while you are here, you
teachers?) (Maluleke 1998:33)
- b. Ku-kum-iw-a [hlonga rin'wana [leri [fan-ek-el-a-ka [ku-languta [na] ku-
hlayisa muti]
(Expl-find-pass-fv slave certain rel.det fit-ek-appl-fv-rm to-look and to-
protect village: there is found a certain slave who ought to look after and
protect the village) (Risiba 2000:32)

In (a) the two coordinated Infinitives are [ku-famba a-nwa mabyalwa] and [ku-dzaha mafole]. They appear with the conjunct [ni] between them. In (b) the two Infinitives are [ku-languta] and [ku-hlayisa muti]. A conjunct **na** appears between them. However, the verbs **languta** and **hlayisa** in the two Infinitives share one internal argument, i.e. **muti** (village). In (a) the controller of the Infinitive is the subject **n'wana** and in (b) it is **hlonga**.

The second coordinated clause is an Infinitive:

- (61) a. A-ku-ri hava [munhu [loyi [a-a-va-hlamar-is-a [ni] ku-va-tsak-is-a etikweni
hinkwaro]
(past-expl-cop.vb lack person rel.det past-agrs1-agro2-astonish-caus-fv
and to-agro2-happy-caus-fv in-country whole: there was not a person

who astonished them and who pleased them in the whole country{
(Maluleke 1998:34)

- b. Loko ndz-aha-hanya ku-hava [loyi [a-nga-ku-kanganyis-a-ka [hambi] ku-ku-venga]
(as I-still-live expl-lack rel.det agrs1-can-agro2 ps-deceive or to-agro2 ps-hate: as I am still living, there lacks one who can deceive you or hate you) (Ngobeni 2003:49)
- c. [Va-hlawul-ek-is-a [ni] ku-twar-is-a mfumo wa vona]
(ags2-choose-ek-caus-fv and to-evident-caus-fv authority of them: they cause to be chosen and to make evident their authority) (Maluleke 1998:44)
- d. A-a-languta [ni] ku-navela [leswaku [mufana a-kula hi ndlela leyi]
(past-agrs1-consider and to-desire that boy agrs1-grow with way this: he considered and desired that the boy should grow up in this way)
- e. [Tiyindlu [ti-fuler-iw-ile hi vuntshwa [ni] ku-chuchut-iw-a hi vuntshwa]
(Houses agrs-thatch-pass-pers with newness and to-white.wash-pass-fv with newness: the houses were newly thatched and newly whitewashed{ (Maluleke 1998:57).

In the sentences (a-e) above, the Infinitive with the morpheme [ku-] is the second coordinate CP after a non-Infinitival first CP. With regard to the controller of this Infinitive: in all cases it is subject control through the subjects **munhu** in (a), subjectival agreement with an empty pro, i.e. **a** in (b) and (d), subjectival agreement with an empty pro, i.e. **va** in (c) and **tiyindlu** in (e). The internal arguments of the verbs in (a) and (b) are empty pro's with objectival agreement, i.e. **va** in (a) and **ku** in (b). These agreements with pro are repeated on the two verbs. In (c) the internal argument **mfumo wa vona** is shared by the two CPs but it only appears overtly with the Infinitive. In (d) the complement of the infinitive verb **navela** is a CP with a C **leswaku** as head. It is shared by the first CP with the verb **langula**. In (e) both CPs have passive verbs with the shared subject **tiyindlu**.

The controller of the Infinitive

With Intransitive verbs:

Motion verbs: subject control (1-4)

Psych verbs: subject control (5-8)

Change of state verbs: subject control (9-10)

Existence verbs: subject control (11)

State verbs: a. matrix verb has pro with agreement of class 8 (swi-) as subject: no controller (12)

b. Verbs with applicative has an internal object argument: object control (13)

With Transitive verbs

Transitive verbs without objects

Psych verbs: subject control (1-7)

Aspectual verbs: subject control (8-11)

Creation verbs: subject control (12)

Communication verbs: subject control (13)

Transitive verbs with their objects

Communication verbs: object control (14-15)

State verbs: object control (16-17)

Verbs of removing: subject control (15)

Helping verbs: a. subject and object control (split antecedents) (19)
 b. subject control (20)
 c. arbitrary control (21)

Perception verbs: object control (22)

Psych verbs: object control (23)

Change of possession: subject control (24)

With Passive verbs

Expletive **ku**: arbitrary control (25)

Co-indexed argument: subject control (26)

Applicative verb: subject control (27)

Infinitive passive: subject control (31)

Matrix and Infinitive passive: subject control (33)

With neuter-passive verbs

Subject control

Expletive **ku**: arbitrary control

With Causative verbs

New and old external argument: object control (43)

Expletive with new internal argument: object control (44)

Expletive with locative: locative control (45)

Causative and Infinitive internal argument: subject control (46)

Interrogative **yini**: subject control (47)

Expletive: arbitrary control (48)

Nominal Infinitive: possessive prepositional control (49)

With Reciprocal verbs

Nominal Infinitives: arbitrary control (50)

With Reflexive verbs

Subject control (54, 55)

Deficient verbs

Subject control (56-59)

Coordination

Subject control (60-61)

ABBREVIATIONS

1ps	first person singular
agr	agreement
appl	applicative
caus	causative
cop.vb	copulative verb
CP	Complementizer Phrase
def.vb	deficient verb
dimin	diminutive
ek	neuter-passive

expl	expletive
fut	future tense
fv	final vowel
infin	infinitive
loc	locative
neg	negative
pass	passive
past	past tense
perf	perfect tense
poss	possessive
pot	potential
pres	present tense
recipr	reciprocal
refl	reflexive
rel.det	relative determiner
rm	relative marker
trans	transitive

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