

Shona Subjects are Subjects*

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1 Introduction

There has been debate on the status of Shona (‘S’-Bantu, Zimbabwe) pre-verbal subjects. Traditional analyses have proposed that the pre-verbal subject position is an A-position (Harford, 1983; Demuth and Harford, 1999; Zentz, 2016). Some recent analyses have challenged the earlier approach by arguing that Shona pre-verbal subject position is actually a topic position, and therefore, raising to subject is A’-movement (Bliss and Storoshenko, 2008b; Ferch, 2009; Morimoto, 2006). In this paper, we argue in favor of the classic subject in A-position analysis for Shona on the basis of non-topics in the pre-verbal position as well as the lack of weak crossover violations. We also address some of the arguments made in favor of the topicalization analysis.

2 Agreement in Shona

The following section serves as a brief overview of Shona noun class and agreement. Agreement in Shona is typical of Bantu in general. Nouns belong to one of many classes numbered under the traditional classification. Arguments agree with the verb Fortune (1984a,b).

2.1 Noun Class

As is characteristic of Bantu, Shona exhibits many noun classes, at least 19 (Fortune, 1984a). Most noun-class agreement is indicated by prefixes.

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- (1) (Singular) noun classes for *-kadzi* ‘woman’ (Fortune, 1984a, pg.34-35)

1CL *mu-kadzi* “woman”

5CL \emptyset -*gadzi* “large woman”

7CL *chi-kadzi* “way of a woman; fat, stout, jolly woman”

11CL *ru-kadzi* “thin, lean, undersized woman”

12CL *ka-kadzi* “small woman”

14CL *u-kadzi* “womanhood”

16CL; 21CL; 5CL *pa-zi-gadzi* “by the huge woman”

21CL; 5CL *zi-gadzi* “huge woman”

- (2) Nominal agreement (Fortune, 1984a, pg.109-111)

a. 2CL *v-ana v-angu v-ese v-amwe va-kuru a-va* “all these other elder children of mine”

b. 9CL *i-mwe \emptyset -hama y-angu*
“a certain kinsman of mine”

Noun classes 16-18 have locative functions (Fortune, 1984a, pg. 79-82). It is unsettled whether locative phrases are DPs (Harford, 1983; Salzmänn, 2004) or PPs (Bliss and Storoshenko, 2008b). Their specific status is not necessary for our arguments.

- (3) Locative forms of *imba* ‘house’

16CL *pa-mba* “at home”

17CL *ku-mba* “at home”

18CL *mu-mba* “in the house”

Verb-Subject agreement is marked by prefix on the verb before tense. (Usually optional) verb-object agreement is marked by a prefix immediately before the verb root. Shona is pro-drop for both subjects and objects (Mugari, 2013).

- (4) *Jerry a-(i)-rov-a nyoka*

1aCL.Jerry 1SM-9OM-beat-FV 9CL.snake

‘Jerry beat a snake.’ (Mugari, 2013, pg. 152)

- (5) (Mugari, 2013, pg. 152, 157)

a. *Ha-mu-cha-mbo-nyatso-ndi-rov-es-i-wo*

NEG-2sgSM-FUT-ASP-AUX-1sgOM-beat-CAUS-FV-clitic

‘You will not cause me to be beaten/you will not have me beaten.’

- b. *a-chi-bik-ir-a pa-moto*
 1SM-7OM-cook-APPL-FV 16CL-9CL.fire
 ‘She cooked it on the fire.’

3 Verbal Argument Constructions in Shona

Shona has both active and passive constructions, but also a third, *locative inversion* which has generated debate (Fortune, 1984b; Salzmänn, 2004). The language also makes heavy use of applicatives, again, typical of a Bantu language (Fortune, 1984b; Bliss, 2009; Cann and Mabugu, 2007).

3.1 Active and Passive Verbs

Active sentences typically exhibit SVO surface order (Fortune, 1984b). Passive verbs (indicated by *-(i)w-* suffix immediately before the final vowel FV) allow optional subject raising (Fortune, 1984b).

- (6) (Bliss and Storoshenko, 2008b, pg.2)
- a. *Shingi a-ka-bik-a ma-nhanga.*
 Shingi 1SM-PST-cook-FV 6CL-pumpkins
 ‘Shingi cooked pumpkins.’ ACTIVE
- b. *ma-nhanga a-ka-bik-w-a na-Shingi.*
 6CL-pumpkins 6SM-PST-cook-PASS-FV by-S.
 ‘Pumpkins were cooked by Shingi.’ PASSIVE

Impersonal passives show subject agreement with the locative noun class 17 and no subject raising (Harford, 1983).

- (7) (Fortune, 1984b, pg.56)
- a. *va-zukuru va-vhiy-a mhuka.*
 2CL-nephew 2SM-skin-FV 9CL.animal
 ‘The nephews have skinned the animal.’ ACTIVE
- b. *ku-vhiy-iw-a va-zukuru mhuka.*
 17SM-skin-PASS-FV 2CL-nephew 9CL.animal
 ‘There was an animal skinned by the nephews - *who did it eagerly for the sale of their perquisites and to the chagrin of their uncles who had to stand by.*’ IMPERSONAL PASSIVE

Shona applicatives allow a verb to take an additional object argument. Applicative verbs are marked by an *-ir/er-* suffix. This object can have a wide range of interpretations (Cann and Mabugu, 2007). Shona applicatives exhibit symmetric passivization which means that either the applicative object or the direct object may raise in passive constructions (Bliss and Storoshenko, 2008b).

(8) (Bliss and Storoshenko, 2008b, pg.2)

- a. *Shingi a-ka-bik-ir-a Mufaro manhanga.*
 1aCL.Shingi 1SM-PST-cook-APPL-FV 1aCL.Mufaro 6CL-vegetables
 ‘Shingi cooked pumpkins for Mufaro.’ ACTIVE
- b. *manhanga akabikirwa Mufaro*
 6CL-pumpkins 6SM-PST-cook-APPL-PASS-FV 1aCL.Mufaro
na-Shingi.
 by-1aCL.Shingi
 ‘Pumpkins were cooked for Mufaro by Shingi.’ DO-RAISING
- c. *Mufaro akabikirwa manhanga*
 1aCL.Mufaro 1SM-PST-cook-APPL-PASS-FV 6CL-pumpkins
na-Shingi.
 by-1aCL.Shingi
 ‘For Mufaro were cooked pumpkins by Shingi.’ APPL-O-RAISING

3.2 Locative Inversion

Of the Shona verbal constructions, locative inversion (LocInv) has inspired the most debate. Through LocInv, a locative phrase, presumably an adjunct in non-applicative constructions (Salzmann, 2004), occupies a pre-verbal subject-agreement position while the subject occupies a post-verbal position. This is a swapping or *inversion* of this family’s normal SVO word order.

The construction is superficially similar to locative passive and pseudo-passive constructions in English, a fact which did not escape the relational grammarians (Perlmutter and Postal, 1984) who drew comparisons between English pseudo-passives and Kinyarwanda LocInv. In the English constructions, a locative PP or an extracted DP occupy the subject position through A-movement.

(9) On the table were placed the books.

(10) The house was dwelt in by three bears.

One crucial difference however that prompted research into LocInv is that the locative is in subject agreement with the verb. This is distinct from the English locative passive construction (9) where the verb agrees with the logical subject ‘the books’ and not with the locative occupying the subject position. The follow illustrates locative inversion.

- (11) (Harford, 1983, pg.142)
- | | | | | |
|----|-------------------------------|---------------------|------------------|-----------|
| a. | <i>Mombe</i> | <i>dza-ka-vat-a</i> | <i>mu-mu-nda</i> | |
| | 10CL.cattle | 10SM-PAST-sleep-FV | 18CL-3CL-field | |
| | ‘Cattle slept in the field.’ | | | NO LOCINV |
| b. | <i>Mu-mu-nda</i> | <i>m-aka-vat-a</i> | <i>mombe</i> | |
| | 18CL-3CL-field | 18SM-PAST-sleep-FV | 10CL.cattle | |
| | ‘In the field, cattle slept.’ | | | LOCINV |

Early accounts of the LocInv phenomenon took relational approaches which treated LocInv as a kind of argument inverting operation somewhat akin to passivization where the locative phrases raises through A-movement to the pre-verbal subject position (Kimenyi, 1980; Harford, 1983). One major argument in favor of this analysis was that it allowed there to be a single projection for subject-verb agreement since all phrases triggering subject agreement were in a subject position. This argument inversion line of reasoning has continued (Demuth and Harford, 1999; Salzmann, 2004; Zentz, 2016) into recent decades.

More recently, it has been argued that LocInv is a topicalizing operation, that the inverted locative is a topic occupying a topic projection (TopP) above TP via A'-movement, and therefore subject-verb agreement in these constructions is actually topic-verb agreement (Morimoto, 2006). This has the advantage of being sensitive to patterns of discourse seen in the data. LocInv is only felicitous if the locative subject has already been introduced in the previous discourse.

On the other hand, it complicates subject-verb agreement because it requires some subject agreement from TP and some from TopP (Bliss and Storoshenko, 2008b). The situation is especially confused given the presence of impersonal passives which show subject agreement with locative class 17.¹ This means that even the specific case of locative inversion would need to occur either from TP or TopP.

¹It is certain that impersonal passive agreement is with locative class 17 and not verbal noun class 15. In appropriate circumstances, impersonal passives may agree with the other locative classes as well. In the following example, a class 18 locative is in the same sentence, but it does not necessarily need to be.

- (1) *Ma-tinir-w-a* *mombe* *mu-mu-nda* *menyu*
 18SM-drive.into-pass-fv 10CL.cattle 18CL-3CL-field 18CL-your

To resolve the confusing issue of subject agreement, it has been argued that for Shona among some other Bantu languages, *all* subject-raising is actually topicalization and therefore all subject-verb agreement is topic-verb agreement (Bliss and Storoshenko, 2008b; Ferch, 2009; Storoshenko, *ming*).

4 Arguments for A-Movement

We now turn towards arguments for the A-movement analysis of Shona pre-verbal subjects. Evidence from the lack of weak crossover and the presence of non-topics in the pre-verbal subject position shows that that position behaves like a typical A-position and not like an A'-position.

4.1 Absence of Weak Crossover

Shona pre-verbal subjects do not trigger weak crossover (Stowell, 1991). The binding behavior of passive applicatives and locative inversion sentences is consistent with pre-verbal subjects binding from an A-position rather than an A'-position.

The raising of a direct object in passive applicatives provides an example of crossover. Example (12) presents an active applicative sentence. It is ungrammatical because 'his_{*i*} money' is never c-commanded by 'man_{*i*}.'

- (12) Active applicative with binding violation
- a. * *mu-kadzi aka-uray-ir-a mari y-ake_{*i*} mu-rume_{*i*}*
 1CL-woman 1SM.PAST-kill-APPL-FV 9CL.money 9CL-his_{*i*} 1CL-man_{*i*}
 'The woman killed the man for his money'
- b. * *mukadzi akaurayira* [*AppIP* [*DP* *mari yake*]_{*i*}] [*VP* [*DP* *murume*]_{*i*}]

Example (13) is the passive counterpart to (12). Unlike the active sentence, this is grammatical. 'Man_{*i*}' must be binding 'his_{*i*} money' from an A-position. The two-step raising adopted for (13) is of the type argued for in McGinnis (2008) and specifically for Shona in Bliss (2009). Under this approach, the lack of weak crossover in passive applicatives only means that at least one of the two raising positions is an A-position.²

'There are cattle driven into your field.'

²Bliss and Storoshenko (2008a) and Storoshenko (*ming*) attempt to use passive applicatives as evidence for topicalization. Though their analysis require that applicative direct objects raise solely through A'-movement, their specific implementation is unclear. Bliss (2009) argues for two-step raising. In this case, each movement must be A'-raising but it otherwise would appear structurally

- b. ✓ $\underbrace{\text{mumba}_i \text{ makagara } [{}_{vP} \text{ muridzi wayo}_i \text{ t}_i]}_{\uparrow}$

A-RAISING

A possible objection to this argument is that the locative subject is actually generated in the external argument position of the verb (Bliss and Storoshenko, 2008b). If that is the case, then the logical subject should not be able to bind a possessive in the locative regardless of whether or not it topicalizes. The following shows that the external argument analysis does not hold. Sentences of this type are grammatical

(16) Test for locative external argumenthood⁴

- a. ✓ $\text{ku-danga } \text{kw-ayo}_i \text{ kw-aka-svik-a } \text{mombe}_i$
 CL17-kraal CL17-POSS_i 17SM-PST-arrive-FV CL9.cow_i

‘The cow_i arrived at its_i kraal.’

- b. ✓ $\text{kudanga } \text{kwayo}_i \text{ makagara } [{}_{vP} \text{ mombe}_i \text{ t}_i]$
 \uparrow

NOT EXTERNAL ARG; A-RAISING

4.2 Non-Specific Indefinite Pre-Verbal Subjects

The second line of evidence for the pre-verbal subject A-position comes from non-specific indefinite subjects. Under the topicalization analysis, there should be non-specific indefinite subjects in the pre-verbal position since they are not topics. While it is true that Shona often employs avoidance strategies to get around pre-verbal non-specific indefinite subjects, it does allow them.

If pre-verbal subjects are topics, it should not be possible to form sentences with pre-verbal non-specific indefinite subjects. Shona frequently take an existential

⁴The choice of a verb of motion here risks that the grammaticality is a result of restructuring. The following additional sentences were formulated for our consultant to remove the possibility of restructuring interfering with the judgements. We have not yet received a response.

- (1) a. $\text{mu-danga } \text{m-ayo}_i \text{ m-aka-va-a } \text{mombe}_i$
 CL18-kraal CL18-POSS_i 18SM-PST-arrive-FV CL9.cow_i
 ‘The cow_i slept in its_i kraal.’

LOCINV

- b. $\text{mombe}_i \text{ y-aka-va-a } \text{mu-danga } \text{m-ayo}_i$
 CL9.cow_i 9SM-PST-arrive-FV CL18-kraal CL18-POSS_i
 ‘The cow_i slept in its_i kraal.’

SIMPLE DECLARATIVE

construction approach to non-specific indefinite subjects, but it does not disallow them in declaratives either (Zentz, 2016).

WH words are disallowed in the pre-verbal subject position (Zentz, 2016). Furthermore, it is difficult to answer WH-subject questions with simple declarative (i.e. subject in the pre-verbal position) sentences (Zentz, 2016; Bliss and Storoshenko, 2008b), though they are not completely ruled out as the following example indicates. For both questions and answers, it-cleft sentences are preferred (Zentz, 2016).

- (17) Non-specific indefinite question answering (Zentz, 2016, pg.94).
- a. Q: *chi-i ch-aka-it-ik-a nezuro ma-nheru?*
 CL7.NI-what 7SM-PST-do-STAT-FV yesterday 6CL-night
 ‘What happened last night?’ IT-CLEFT WH-SUBJECT Q
- A: ✓ *Pa-n-e mu-nhu a-ka-gogodza-a pa-Ø-gonhi*
 16CL-be.with-FV 1CL-person 1SM-PST-knock-FV 16CL-5CL-door
 ‘Someone knocked on the door.’ (lit. ‘There is a person who knocked on the door.’) EXISTENTIAL ANSWER
- A: ? *mu-nhu a-ka-gogodza-a pa-Ø-gonhi*
 1CL-person 1SM-PST-knock-FV 16CL-5CL-door
 ‘Someone knocked on the door.’ MARGINAL SIMPLE ANSWER

When provided with six English sentences containing non-specific indefinite subjects, our consultant translated three as simple active declaratives, two as existentials, and one as passive. When later asked to explain the sentences’ meanings, he confirmed the non-specific indefinite interpretations.

- (18) Pre-verbal subject translations of English non-specific indefinite subject sentences
- a. *mu-nhu a-no-bv-a Gweru a-cha-tam-ir-a*
 1CL-person 1SM-PRES-come-FV 5CL.Gweru 1SM-FUT-migrate-APPL-FV
ku-Harare manje_manje.
 17-Harare soon
 ‘Someone from Gweru will move to Harare soon.’
- b. *kana mbavha i-kawan-a mu-kova w-angu w-aka-sham-a,*
 if 9CL-thief 9SM-find-FV 3CL-door 3CL-my 3SM-PAST-open-FV
i-cha-pind-a.
 9SM-FUT-enter-FV
 ‘If a robber finds my door open, he will go inside.’

- c. *r-imwe zuva, mu-kadzi a-cha-sarudz-w-a kuve*
 5CL-some 5CL-day 1CL-woman 1CL-FUT-elect-PASS-FV 17CL-to
mu-tungamiri.
 1CL-leader
 ‘Someday, a woman will be elected prime minister.’

(19) Avoidant translations of English non-specific indefinite subject sentences

- a. ***P-an-e*** *va-end-a ku-no-raur-a nhasi*
 16CL-be.with-FV 2SM-go-FV 15SM-PRES-fish-FV tomorrow
 ‘Some people went fishing yesterday.’⁵ EXISTENTIAL
- b. ***P-an-e*** *bhuku r-aka-teng-w-a nezuro.*
 16CL-be.with-FV 5CL-book 15SM-PRES-buy-PASS-FV yesterday
 ‘A book was bought yesterday.’ (English sentence from Bliss & Storoshenko 2010) EXISTENTIAL
- c. *Tsoka y-angu i-no-fanir-a ku-taris-w-a*
 9CL.foot 9CL-my 9SM-PRES-should-FV 15SM-look_at-PASS-FV
na-chi-remba.
 by-7CL-doctor
 ‘A doctor should look at my foot.’ PASSIVE

Examples (18b-18c) can only have non-specific indefinite interpretations. Our consultant provided an alternate translation of (18b) to capture the specific meaning.

The presence of non-specific indefinite pre-verbal subjects is strong evidence that pre-verbal subjects need not be topics. Combined with the lack of weak crossover for pre-verbal subjects, this constitutes evidence that the pre-verbal subject position is not an A'-position

5 Addressing Arguments for A'-Movement

What follows is discussion of arguments made in favor of the A'-position analysis for Shona pre-verbal subjects. The argument from strong crossover also has an A-movement analysis, and is made more tenuous by the arguments from passive applicatives described in section 4.1. Arguments from declarative question answering we argue are insufficient to establish the topicalization analysis in the light of other evidence.

⁵Class 15 are verbal nouns. In this case, ‘fishing.’

5.1 Strong Crossover

A pattern interpreted as strong crossover has been observed in Shona passive applicatives (Bliss and Storoshenko, 2010; Storoshenko, *ming*). Passive applicatives are typically symmetric in the language, but when the applicative object is a reflexive, direct object raising is disallowed.

An active applicative sentence 20a with a single reflexive object is ambiguous because either object may be the reflexive. There is no explicit case-marking in Shona to provide any disambiguation. However, in the passive equivalent, the reflexive ApplO reading (i.e. DO-raising reading) in 20c is ungrammatical.

(20) Reflexive applicative ambiguity (Storoshenko, *ming*)

- a. *Bill a-zvi-rov-er-a John*
 Bill 1SM-REFL-hit-APPL-FV John
 ‘Bill_i hit John_j for himself_i.’
 ‘Bill_i hit himself_i for John_j.’
- b. ✓ *John_i a-zvi-rov-er-w-a refl_i*
 John 1SM-REFL-hit-APPL-PASS-FV REFL
 ‘For himself John was hit.’
- c. * *John_i a-zvi-rov-er-w-a refl_i*
 John 1SM-REFL-hit-APPL-PASS-FV REFL
 ‘John was hit because he was asking for it.’

This ungrammaticality is explained in the literature as strong crossover. In the ungrammatical example, the direct object is said to A’-raise in a single hop to the preverbal subject position (Storoshenko, *ming*). Then since it never binds its anaphor from an A-position, strong crossover results. The grammatical reading is explained because the applicative object is generated above its anaphor in an A-position before raising.

(21) Passive applicative subject raising (Storoshenko, *ming*)

- a. ✓ $\text{John}_i \text{ akazvirorerwa } [_{\text{ApplP}} \text{t}_i [_{\text{VP}} \text{refl}_i]]$ NO CROSSOVER
 \uparrow
- b. * $\text{John}_i \text{ akazvirorerwa } [_{\text{ApplP}} \text{refl}_i [_{\text{VP}} \text{t}_i]]$ STRONG CROSSOVER
 \uparrow

There is however an alternate explanation concordant with an A-raising analysis of subject-raising. *Lethal ambiguity* explains exactly the case presented here as strong crossover (McGinnis, 1998). Under this analysis, an A-scrambled object cannot bind a subject. It has been argued that Shona exhibits a high-applicative structure (Bliss,

2009) which is standard for this kind of symmetry (McGinnis, 2001). McGinnis, in her E-applicative analysis of symmetric applicatives shows A-scrambling of the lower object which places it above the higher object, allowing it be selected to satisfy a T's EPP feature. Applying this to the Shona case, the pre-verbal subject cannot bind the anaphor because it A-scrambled over it.

- (22) Passive applicative subject raising with lethal ambiguity
- a. John_i azviroverwa [_{AppLP} t_i [_{VP} refl_i]]
- b. * John_i azviroverwa [_{AppLP} t_i [_{AppLP} refl_i [_{VP} t_i]]] LETHAL AMBIGUITY

Lethal ambiguity as an explanation not only derives the ungrammaticality with A-movement but also allows us to adopt a standard approach to applicatives in the language.

5.2 Declarative Question Answering

If subjects are necessarily topics, then it should be impossible to answer WH-questions with simple declaratives (Bliss and Storoshenko, 2008b). This was briefly mentioned in section (4.2). Bliss and Storoshenko (2008b) provide an example where the simple declarative answer is infelicitous and the it-cleft equivalent is acceptable (Bliss and Storoshenko, 2008b).

- (23) Q: *Ndi-yana a-ka-bik-a ma-nhanga?*
 it_was-who 1SM-PAST-cook-FV 6CL-pumpkin
 ‘Who cooked the pumpkins?’
 (Bliss and Storoshenko, 2008b, pg.4)
- A: # *Shingi a-ka-bik-a ma-nhanga?*
 Shingi 1SM-PAST-cook-FV 6CL-pumpkin
 ‘Shingi cooked the pumpkins.’
- A: ✓ *Ndiye Shingi a-ka-bik-a ma-nhanga?*
 it_was Shingi 1SM-PAST-cook-FV 6CL-pumpkin
 ‘It was Shingi who cooked the pumpkins.’

The behavior of WH-subject questions is consistent with pre-verbal subjects occupying a topic projection. WH words and their corresponding answers are focuses which are not topics. Therefore, if the pre-verbal subject position is a topic position, it follows that focuses would be prohibited there.

However, the converse is not necessarily true. Just because the position does not permit focuses does not necessarily mean that it is a topic position. In fact, given that non-specific indefinites and discourse-old or common knowledge subjects (i.e. non-topics) are allowed pre-verbally (Zentz, 2016), the pre-verbal subject position does not behave like a topic position. If the pre-verbal subject position is not a topic position yet forbids focuses, it is an *anti-focus* position (Zentz, 2016, pg.85-104). This analysis allows the pre-verbal subject position to remain an A-position, therefore comporting with the evidence for A-raising, yet still allows for the lack of focuses. It has been proposed for other Bantu languages as well as an explanation for the restriction (Zentz, 2016; Zerbian, 2006; Zeller, 2008).

6 Conclusion

The status of the pre-verbal subject in Shona remains an open question in the literature. Arguments from a variety of perspectives have attempted to shed light on whether the pre-verbal subject position is an A-position or an A'-position. The lack of weak crossover in passive applicatives and locative inversion constructions as well as the range of licit sentences with pre-verbal non-specific indefinite subjects provide new and additional evidence in favor of pre-verbal subject occupying an A-position. On the other hand, arguments for the A'-position analysis have been explained under an A-position framework. The data supposedly showing strong crossover has been explained as lethal ambiguity. Considering the lack of focused pre-verbal subjects but given non-topic pre-verbal subjects, we proposed that Shona pre-verbal subjects occupy an anti-focus A-position.

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