WORKING PAPERS IN THE LANGUAGES SCIENCES AT THE UNIVERSITY OF ROCHESTER
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TABLE OF CONTENTS

SCRAMBLING IN BENGALI: AN A-/A'-MOVEMENT DISTINCTION*

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Abstract. Bengali is an SOV language (Bhatt & Dayal 2007) known for its flexible word-order. Elements in a phrase can be moved to other positions, both within and across clausal boundaries, in a process called scrambling (David 2015). This study aims to provide a comprehensive description of scrambling in Bengali and argues that scrambling manifests in two types of movement in this language: A- and A'-. It further argues that the type of scrambling involved (A- vs. A'-) is predictable from the syntactic environment based on the following generalization: A'-movement is possible only when a Spec,CP position is available as a landing site. Given this,

recently argued for in Keine (2018). Building on previous literature on scrambling in other SOV languages, such as Hindi (Keine 2018; Dayal 1994; Mahajan 1990, 1994) and Japanese (Sato & Goto 2014; Saito 1985, 1992), this paper investigates scrambling in four syntactic environments, each with a different scrambling profile: 1) vP-internal movement; 2) clause-internal movement; 3) cross-non-finite clause movement; and 4) cross-finite clause movement. Two well-established tests are used to discern A-movement from A'-movement: i) A-movement can obviate weak crossover effects and lead to reciprocal binding; ii) A'-movement can reconstruct for Condition A. It is demonstrated that vP-internal scrambling is unambiguously A-movement, while clause-internal scrambling may be both A- and A-movement. Additionally, cross-clausal movement out of non-finite clauses can be both A- and A-movement, but cross-clausal movement out of finite-clauses is unambiguously A-movement.

Keywords.

ground information, and so on (

only available in scrambling environments that can provide an available Spec,CP position as a landing site for such movement. Finally, the discussion and scope for further research is provided in Section 4.

1.3 A- and A'-Movement in Bangla

The movements involved in Bangla scrambling can be of two types: A- or A'-. The type of movement involved in scrambling can be identified using the following properties:

1. Only A-movement is known to obviate weak-crossover effects and lead to binding of reciprocal pronouns
2. Only A'-movement can reconstruct for Condition A of binding

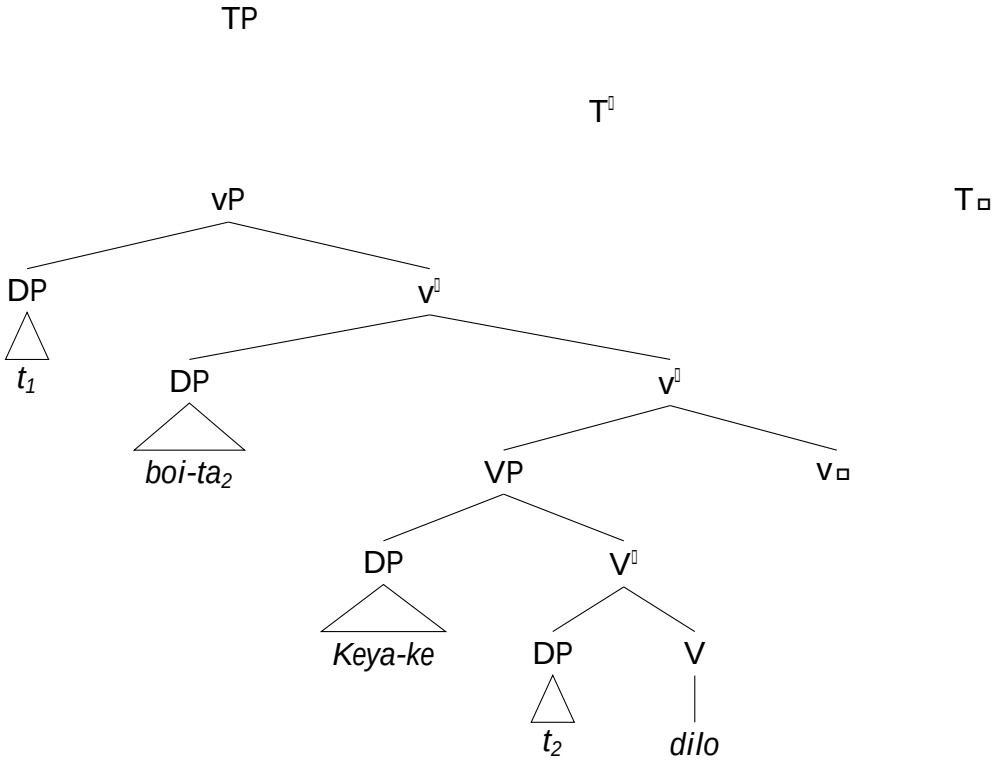
(6) ***Weak crossover obviation***

a. ***o-r$_1$** ma kon-meye-ke$_1$ bok-lo?
3SG-GEN mother.NOM which-girl-ACC scold-PST
'*Which girl$_1$ did her$_1$ mother scold?' (bound reading impossible)

b. *kon-meye-ke$_1$ **o-r$_1$** ma **t$_1$** bok-lo?
which-girl-ACC 3SG-GEN mother.NOM **t$_1$** scold-PST
'Which girl$_1$ did her$_1$

(9) a. Apu [$_{vP}$ Keya-ke ***boi-ta*** di-lo] - [S IO DO V]
Apu.NOM Keya-DAT **book-CLF** give-PST

(13)



(15) ***Weak crossover obviation***

a. o-r_1 ma **prot-ek$_{*1/2}$ baccha-ke** dekh-lo
3SG-GEN mother.NOM **every child-ACC** see-PST
'His/her mother saw every child.' (bound reading impossible)

b. **prot-ek$_1$ baccha-ke** o-r_1 ma **t_1** dekh-lo
every child-ACC 3SG-GEN mother.NOM **t_1** see-PST
'For every child x, x's mother saw x.'

Movement of the object *protek baccha ke* 'every child' over the subject *or ma* 'his/her mother' provides a bound reading of the subject-internal pronoun. Furthermore, reciprocal binding, as in (16), also provides supporting evidence of A-movement in clause-internal scrambling environments; movement provides antecedent for reciprocal binding.

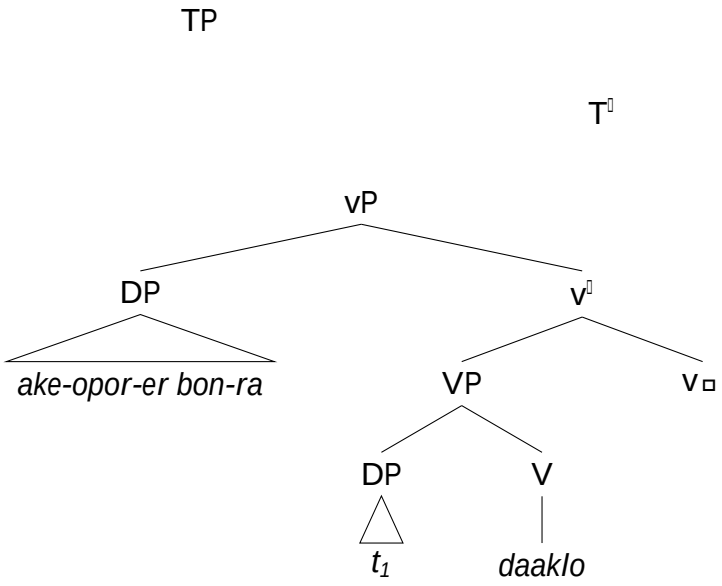
(16) ***Reciprocal binding***

a. **ake-oper-er$_1$ bon-ra* ***Anup-ar-Pratap-ke$_1$*** *daak-lo*
Each other's sister-PL **Anup and Pratap-ACC** call-PST
'*Each other's sisters called Anup and Pratap.'

b. ***Anup-ar-Pratap-ke$_1$*** *[ake-oper-er$_1$ bon-ra]* ***t_1*** *daak-lo*
Anup and Pratap-ACC Each other's sister- PL **t_1** call-PST
'Anup and Pratap, each other's sisters called t_1.'

A derivation of A-movement in clause-internal scrambling in (16) is given in (17).

(17)



construct, also exhibit A'-properties in clause-internal scrambling (Keine 2018; Sato & Goto 2014). Equivalent phrases in Bangla reveal that clause-internal scrambling also exhibits A'-properties in Bangla, as demonstrated by reconstruction in (18).

(18) a. Anup-ar-Pratap **ake-opor-ke** dekh-lo
Anup and Pratap.NOM each-other-ACC see-PST
'Anup and Pratap saw each other.'

b. **ake-opor-ke** [Anup-ar-Pratap **t_1**] dekh-lo
Each-other-ACC Anup and Pratap.NOM **t_1** see-PST
'Each other, Anup and Pratap saw t_1.'

(18-a) shows the basic grammatical word order that follows both Conditions A and C in that the reciprocal pronoun is bound and, the R-expression is free. The grammaticality of (18-b)

2.3 Cross-Clausal Scrambling

Cross-clausal scrambling is the movement of an element to a sentence-initial position across a clause boundary (Sato & Goto 2014). Cross-clausal movement can occur out of both non-finite clauses (20) and finite clauses (21) (Keine 2018).

(20) ***Cross-clausal movement out of non-finite clauses***

a. Apu **Keya-ke** dekh-te chai-lo
Apu.NOM **Keya-ACC** see-INF want-PST
'Apu wanted to see Keya.'

b. **Keya-ke** Apu [$_{TP}$ **t$_1$** dekh-te] chai-lo
Keya-ACC Apu.NOM **t$_1$** see-INF want-PST
'Keya, Apu wanted to see t_1.'

(21) ***Cross-clausal movement out of finite clauses***

a.

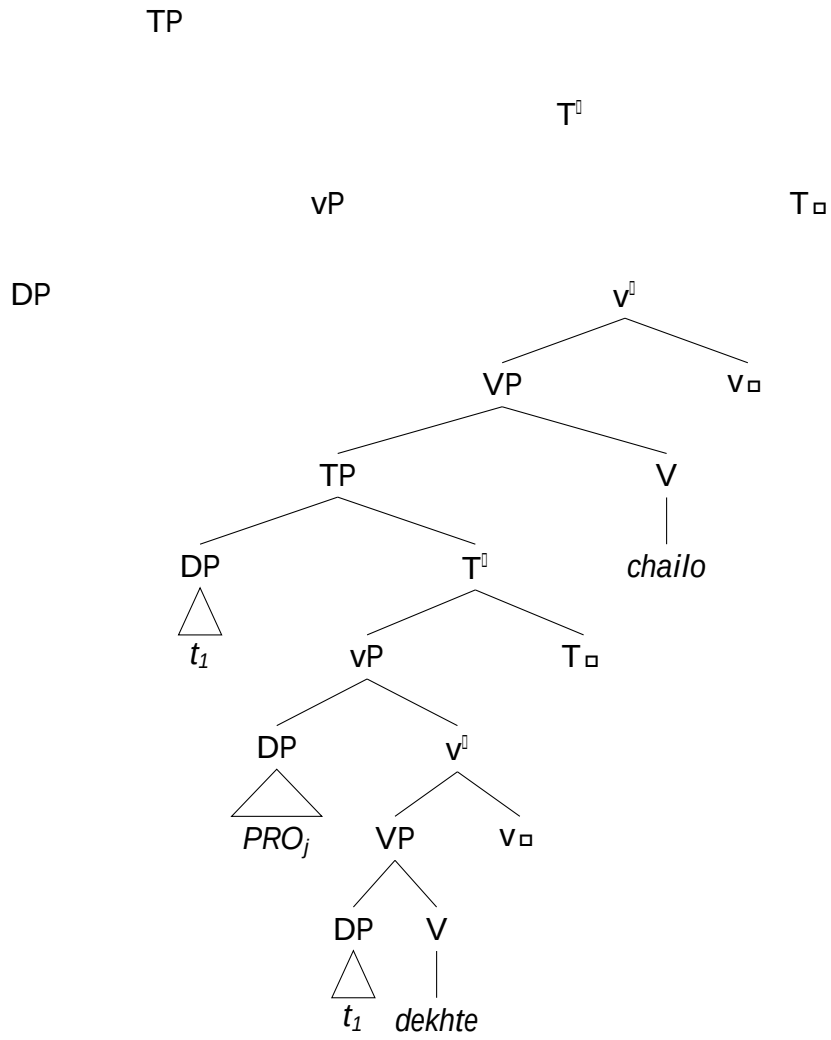
(23) ***Reciprocal binding***

a. [*ake-oper-er$_1$ bon-ra] [$_{TP}$ **Anup-ar-Pratap-ke$_1$** dekh-te] chai-lo
Each other's sister-PL **Anup-and-Pratap-ACC** see-INF want-PST
'*Each other's sisters wanted to see Anup and Pratap.'

b. **Anup-ar-Pratap-ke$_1$** [ake-oper-er$_1$ bon-ra] [$_{TP}$ **t$_1$** dekh-te] chai-lo
Anup-and-Pratap-ACC Each other's sister- PL **t$_1$** see-INF want-PST
'Anup and Pratap, each other's sisters wanted to see t_1.'

The derivation of reciprocal binding as in (23) in given in (24).

(24)



(25) a. **Anup-ar-Pratap$_1$** [$_{TP}$ **ake-oper-er$_1$** bon-der dekh-te] chai-lo
Anup and Pratap.NOM each other's sister- PL see-INF want-PST
'Anup and Pratap wanted to see each other's sisters.'
(*Reciprocal pronoun is bound by Anup and Pratap.*)

b. **[ake-oper-er$_1$ bon-der] Anup-ar-Pratap$_1$** [$_{TP}$ t_1 dekh-te] chai-lo
each other's sister-PL Anup and Pratap-ACC t_1 see-INF] want-PST
'Each other's sisters, Anup and Pratap wanted to see.'

(26)

(25-a) presents the basic word order, which follows both Conditions A and C of binding. (25-b) shows a grammatical sentence with scrambled word order that violates both binding conditions; the R-expression is bound, and the reciprocal pronoun is not. The grammaticality of (25-b) is evidence of reconstruction, and thereby of A'-movement.

2.3.2 Cross-clausal scrambling out of finite clauses

In Bangla, cross-clausal scrambling out of finite clauses does not display A-properties. While movement out of a finite sentence is possible, it does not lead to binding of the subject-internal pronoun *or ma* 'his/her mother' by the object *prot-ek baccha ke* 'every child', as shown in (27).

(27) ***Weak crossover obviation***

a. [o-$r_{1/*2}$ ma] bhab-lo [$_{CP}$ je Anup **prot-ek$_2$ baccha-ke**
3SG-GEN mother.NOM think-PST that Anup.NOM every child-ACC
dekh-e-che]
see-PRF-PRS
'His/her mother thought that Anup had seen every child.'

b. **prot-ek$_2$ baccha-ke** [o-$r_{1/*2}$ ma] bhab-lo [$_{CP}$ je Anup **t_1**
every child-ACC 3SG-GEN mother.NOM think-PST that Anup.NOM **t_1**
dekh-e-che]
see-PRF-PRS
'His/her mother thought that Anup had seen every child.'

A bound reading is not obtained despite movement. Since this movement does not obviate weak crossover, it is thereby classified as an A'-movement. Reciprocal binding also provides supporting evidence. In (28), movement of *Anup-ar-Pratap* 'Anup and Pratap-ACC' over the reciprocal pronoun *ake opor er* 'each other's' does not lead to reciprocal binding. Hence, scrambling out of finite clauses is unambiguously A'-movement.

(28) ***Reciprocal binding***

a. *ake-oper-er$_1$ bon-ra bhab-lo [$_{CP}$ je Keya **Anup-ar-Pratap-ke**
each other's sister-PL think-PST that Keya.NOM **Anup-and-Pratap-ACC**
dekh-e-che]
see-PRF-PRS
'*Each other's sisters thought Keya had seen Anup and Pratap.'

b. ***Anup-ar-Pratap-ke$_1$** ake-oper-er$_1$ bon-ra bhab-lo [$_{CP}$ je Keya **t_1**
Anup-and-Pratap-ACC each other's sister-PL think-PST that Keya.NOM **t_1**
dekh-e-che]
see-PRF-PRS
'Anup and Pratap, each other's sisters thought that Keya had seen t_1.'

In sum, Bangla exhibits the following properties in different scrambling environments:

(29) vP-internal scrambling is unambiguously A-movement.
Clause-internal scrambling can be A- or A'-movement.
Cross-clausal movement out of non-finite clauses can be A- or A'-movement.
Cross-clausal movement out of finite clauses in unambiguously A'-movement.

The varying properties of movement in the different scrambling environments can be explained

(33) tumi [$_{TP}$ **ki** kor-te] jaano?
you what do-INF know
'What do you know to do?'

The evidence therefore leads to the same conclusion for Bangla (33).

(34) a. Finite clauses in Bangla are CPs.
b. Non-finite clauses in Bangla lack a CP layer; they are TPs.

3.2 Positions Targeted by A- and A'-Movement

Once again, evidence from Hindi (Keine 2018

(36) ***A'-movement cannot land inside a non-finite clause***

a. [$_{CP}$ ami chai [$_{TP}$ bol-te [$_{CP}$ je ami **boi-ta** pod-e niy-e-chi]
1SG.NOM want say-INF that 1SG book-CLF read take-PRF-PRS
'I want to say that I have read the book.'

b. [$_{CP}$ *ami chai [$_{TP}$ **boi-ta** bol-te [$_{CP}$ je ami **t_1** pod-e niy-e-chi]
1SG.NOM want **book-CLF** say-INF that 1SG **t_1** read take-PRF-PRS
'*I want to **the book** say that I have read t_1.'

c. [$_{CP}$ **boi-ta** ami chai [$_{TP}$ bol-te [$_{CP}$ je ami **t_1** pod-e niy-e-chi]
book-CLF 1SG.NOM want say-INF that 1SG **t_1** read take-PRF-PRS
'**The book** I want to say that I have read t_1.'

Both (36-b) and (36-c) depict movement out of finite clauses, and hence, must be A'-movement (given that finite clauses allow only A'-movement out of them, as demonstrated in section 2.3.3) Converging with evidence in Hindi (Keine 2018), the ungrammaticality of (36-b) demonstrates that A'-movement in Bangla cannot land inside a non-finite clause. On the other hand, (36-c) shows that A'-movement can land in finite clauses. Therefore, the ungrammaticality of (36-b) must stem from the difference in the structure of finite and non-finite clauses. While non-finite clauses, which obligatorily lack a CP layer, simply lack the "functional structure" needed for a A'-movement landing site, finite clauses, with their CP layer, can provide this landing site to A'-movement. This, therefore, must indicate that A'-movement targets TP-external, Spec,CP positions.

In sum, A- and A'-movement target the following positions in Bangla:

(37) a. A-movement lands in Spec,TP (or TP-internal) positions
b. A'-movement lands in Spec,CP.

4 Discussion

The conclusions in (37) predict the different properties of A- and A'-movement in the different scrambling environments. Reiterating the observations presented in Section 2: vP-internal scrambling is unambiguously A-movement, whereas clause-internal movement may be both A- and A'-movement. Further, cross-clausal movement out of non-finite clauses again exhibit properties of both A- and A'-movement, but cross-clausal movement out of finite clauses can only be A'-movement.

The reason why movement in vP-internal scrambling can only be A-movement is because the VP-internal structure does not have the functional structure to provide a landing site for A'-movement. Clause-internal scrambling, on the other hand, can be both A- and A'-movement because the structure of the clause provides landing sites for both kinds of movement. A-movement, in binding relations, can move into Spec,TP, whereas, A'-movement can lead to reconstruction by occupying a higher Spec,CP position in the clause.

Furthermore, in cross-clausal environments, movement out of non-finite embedded clauses exhibits properties of both A- and A'- movement. This also follows from the fact that the structure of the non-finite clause can provide landing sites for both types of movement. A-movement out of the embedded non-finite clauses can land in the Spec,TP position of the higher clause. Again, non-finite clauses are transparent to A'-movement because movement out of a non-finite clause can land in the Spec,CP position of the higher clause, hence leading to reconstruction.

Movement out of a finite (i.e. CP) clause is unambiguously A'-movement; it can only target an A'-position. That is, movement out of an embedded finite clause must obligatorily proceed through Spec,CP of the embedded clause and therefore can only land in the Spec,CP position of the higher matrix clause but not a lower TP-internal position. This is described as a *Ban on Improper Movement*.

(38) *Ban on Improper Movement*
Movement out of Spec,CP must land in Spec,CP. Movement from Spec,CP to a TP-internal position is ruled out. (from Keine 2018:22)

Converging with the evidence in Hindi (Keine 2018), finite clauses in Bangla allow A'-movement out of them because such movement lands in Spec,CP of the higher clause. The lack of a CP layer in embedded non-finite clauses allows A-movement out of them.

The ban on A-movement out of finite clauses can also be explained in terms of phase-boundaries. A'-positions (Spec,CP) are generally known to be phase-edge positions, while A-positions (Spec,TP and TP-internal) are phase-internal positions. A-movement does not cross phase boundaries, and therefore, "movement may not proceed from a phase edge to a phase-internal position" (Keine 2018).

In conclusion, this study distinguishes the different types of movement involved in Bangla scrambling, and provides an account of the properties exhibited by A- and A'-movement in four scrambling environments using a position-based account.

Bangla-scrambling has also been known to exhibit right-ward movement (David 2015; Bhatt & Dayal 2007). This can be seen in the follow(using)-2sA(Sp922dyal)]TJETBT11.95520011.355.1355272401.6

(41) ***Weak crossover obviation***

a. [o-$r_{1/*2}$ ma] bhab-lo [$_{CP}$ je Anup **prot-ek$_2$ baccha-ke** dekh-e-che]
3SG-GEN mother.NOM think-PST that Anup.NOM every child-ACC see-PRF-PRS
'His/her mother thought that Anup had seen every child.'

b. **prot-ek$_2$ baccha-ke** [o-r_2 ma] bhab-lo [$_{CP}$ je Anup **t$_1$** dekh-e-che]
every child-ACC 3PL-GEN mother.NOM think-PST that Anup.NOM **t$_1$** see-PRF-PRS
'Every child x's mother thought that Anup had seen x.'

It is shown in (41-b) that movement out of finite clauses feeds binding, and therefore, evidence of A-movement, in contrast to the example in (27). This indicates that Bangla allows hyperraising out of finite clauses, also contrasting with the evidence in Hindi (Keine 2018). This variation seems to be conditioned upon the speakers' exposure to Hindi; the grammar of speakers of Bangla originating from Northern Indian states, with more influence from Hindi, seems to disallow such constructions, while speakers belonging to the state of West Bengal allow bound readings. The cause of such a variation, and its possible implications about Bangla's clausal structure, also make for an interesting avenue for further research.

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present prosodic and morphological evidence to show that nominal objects that have a corresponding OM are right-dislocated, and show that these right-dislocated objects have flexible ordering in ditransitive constructions. Given these facts, I propose that movement to this position is triggered by an EPP feature on a head that is a complement to TP, and that the movement is based on an anti-focus[2] feature on the object DP, which accounts for apparent locality violations in ditransitive constructions (Section 3). I then explore the syntax-semantics interface to explain the pronominal force that OMs have in Shekgalagadi by testing indefinite DPs that have overt φ-features in object positions (Section 4). I conclude by proposing that movement to the dislocated position may

- Stage II: Anaphoric and agreement, can occur alone or with a co-referential DP, obligatorily present.
- Stage III: Purely agreement, cannot appear alone (2019:278).

Working under this generalization, it would seem that a language like Shekgalagadi, which has 'optional' object marking, would have purely anaphoric OMs. However, as Rizzi (1986) observes in Italian, an OM without a corresponding DP may still be an exponent of agreement with a null *pro* that has *φ*-features but no phonological realization. A better theory of this seemingly optional object marking, which I will use to analyze Shekgalagadi OMs in this paper, is that Agree and EPP are linked in Bantu languages (Carstens 2005; Pietraszko 2023) and OMs are reflexes of object movement to a dislocated position (Zeller 2014). This object can either be an overt nominal object or null *pro*. In both instances, the OM has the "force" of a pronominal clitic, meaning that it is anaphoric (Buell 2008:2).

3 Object Markers Agree with Dislocated Objects

Understanding the structure of a sentence with OMs and nominal objects in the same clause is imperative to the hypothesis presented here. To show that nominal objects with corresponding OMs are dislocated, I use prosodic and morphological evidence (Section 3.1) in addition to adjunct-like flexibility in nominal object ordering (Section 3.2). I then provide two theories of object movement to explain the relationship between OMs and nominal objects (Section 3.3).

3.1 Prosodic and Morphological Evidence of Dislocation

In Sotho-Tswana languages, as well as other Southern Bantu languages like Zulu, certain tenses have verbal morphology that encode conjunctive (conjoint, or short) or disjunctive (disjoint, or long) verb forms (Zeller 2014; Downing & Marten 2019; Creissels 1996; McCormack 2008). In Zulu, the conjoint form "is only possible...when the verb is followed by vP-internal material" (Zeller 2014:352), while the disjoint form indicates that there are no other vP-internal constituents. Example (3) demonstrates the conjoint form of the verb 'fall' with an overt object DP.

(3)

(5) $ke\text{-}i_i$

d. mo-sadi o-bi-ba-h-ayo]$_{vP}$ bo-manchwe bi-gyo
1-woman 1-8.OM-2.OM-give-DJ.PRES]$_{vP}$ 2a-ostrich 8-food
'The woman gives it (cl 8) to them (cl 2), the ostriches the food.'

e. #mo-sadi o-ba-bi-h-ayo]$_{vP}$ bo-manchwe bi-gyo
1-woman 1-2.OM-8.OM-give-DJ.PRES]$_{vP}$ 2a-ostrich 8-food
'The woman gives it (cl 8) them (cl 2), the ostriches to the food.'

Examples (8-c) and (8-d) seemingly contradict a widely observed pattern in languages that allow multiple OMs, which is that "the order of object markers is the mirror image of the order of the corresponding overt NPs following the verb" (Marten & Kula 2012:15). Marten & Kula also discuss a set of Tswana examples similar to (8-c) and (8-e), and argue that "the order of object markers in Tswana is not strictly determined, but structurally free (although possibly associated with differences in pragmatic interpretation). It could still be argued that this is a mirror image in some sense, since the order of post-verbal full NPs is structurally unrestricted in Tswana as well, but this could also be taken to show that the order of neither object NPs nor object markers is strictly fixed" (2012:15). In their paper, however, they do not consider examples where the OM order and overt DP order are not mirror images, as in example (8-c). I hypothesize that (8-c) and (8-d) still conform to Marten & Kula's mirror generalization, and that the OMs in Shekgalagadi mirror the base-generated positions of the object DPs. Future work includes investigating the underlying structure of multiple dislocated DPs.

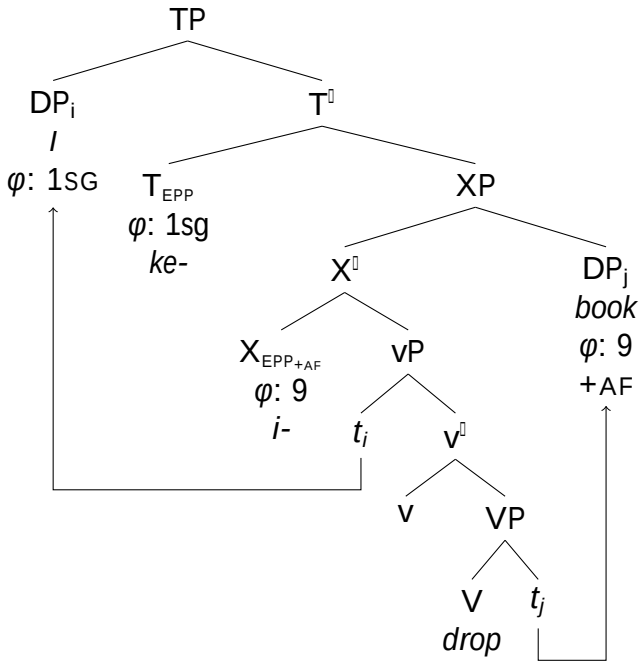
Ditransitive constructions also create an environment to test for locality restrictions on object dislocation. The canonical word order in Shekgalagadi is S V ((IO) DO). According to the theory of Agree as proposed by Chomsky (2000), a head will agree with its most local (structurally closest c-commanded) target. Example (9) demonstrates that an IO (in this case, a null pronoun), which is more local to the verb, is dislocated and object-marked, which is expected under this theory. However, (10) shows that the DO, which is not the most local DP, may also be dislocated and object-marked.

(9) mo-sadi o-mo-h-a t_i bi-gyo]$_{vP}$ *pro*$_i$
1-woman 1-1.OM-give-FV.PRES t_i 8-food]$_{vP}$ *pro*$_i$
'The woman gives him (cl 1) food.'

(10) mo-sadi o-bi-h-a mo-lola t_i]$_{vP}$ *pro*$_i$
1-woman 1-8.OM-give-FV.PRES 1-man t_i]$_{vP}$

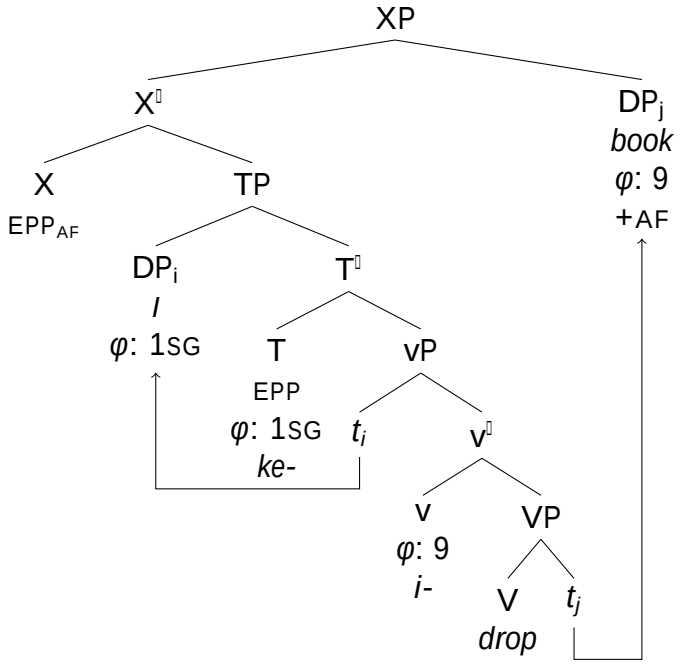
between vP and T to house the moved object, as shown in (11).

(11) Proposed structure from Zeller (2014) (AF = Anti-Focus):



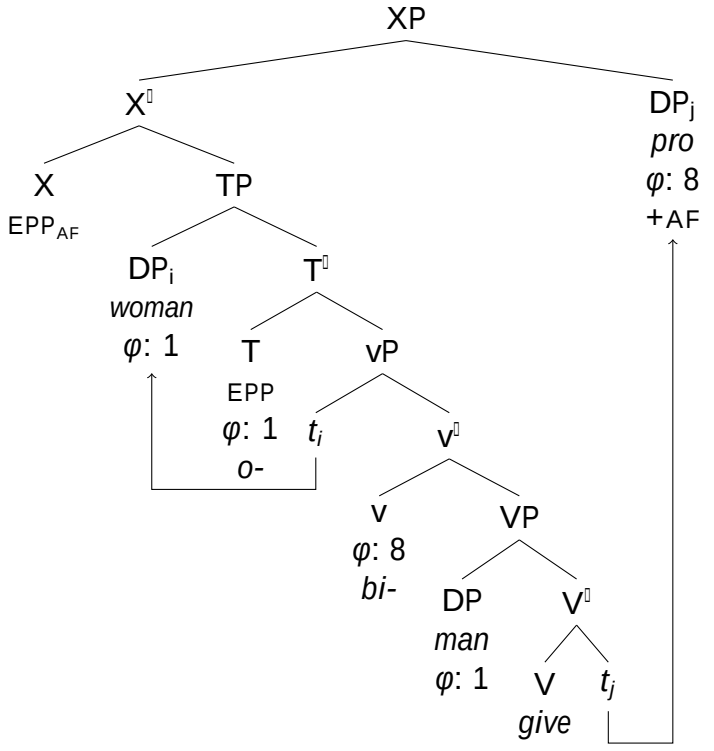
While this proposal provides the necessary structure to allow agreement with an object DP, it requires an order of operations to ensure that the subject DP occupies SpecTP before object dislocation occurs, since the dislocated object position is higher than the base-generated subject position. For this reason, I adopt Pietraszko's (2023) proposed structure instead, shown in (12).

(12) Proposed structure from Pietraszko (2023:34):



This AF-probing analysis allows the apparent minimality violation in sentence (10), in which a DO object-marks across a nominal IO. The tree in (13) adapts Pietraszko's (2023) proposed structure to a ditransitive verb with an OM and dislocated DO.

(13) Tree for sentence (10):



The sentences in example set (8) show that multiple objects may be dislocated. In this scenario, the order of OMs matters for interpretation, while the order of corresponding nominal objects may mirror the OMs, as expected, or be in the inverse order. This sets Shekgalagadi apart from related languages like Zulu, in which only the IO can control agreement when both objects are dislocated (Pietraszko 2023:36). In Shekgalagadi, the EPP feature and the *φ*-agreement probe are both insatiable (Pietraszko 2023; Deal 2015). The flexibility in dislocated object ordering is difficult to account for in Pietraszko's (2023) movement-based theory. Perhaps the SpecXP position contains an unordered set of DPs that have been dislocated. Under this hypothesis, dislocated DOs and IOs are structurally equivalent and can be pronounced in any order.

The observable prosodic break between vP-internal material and dislocated objects mentioned in Section 3.1 and the flexibility in dislocated nominal object ordering in 3.2 suggest that OMs, or structures that allow object agreement, affect the interpretation of a sentence. Exploring the interface between syntax and semantics may enhance the current theory and account for the flexibility observed here. In the following section, I discuss the relationship between object position at LF and a speaker's interpretation of specificity. I propose that dislocated objects lead to a pronominal interpretation of OMs and show that types of nominals that are not as straightforwardly referential can be dislocated and trigger agreement on the verb (Baker & Kramer 2018).

4 The Pronominal Force of OMs is Derived from Structural Position

An underlying property of OMs that is relevant to the current study is their interpretation as pronouns at LF. The current working theory in this paper is that OMs are reflexes of object movement. However, it seems that only objects that can be interpreted as specific are eligible for this type of movement. Baker & Kramer hypothesize that "less than fully referential nominals" cannot be doubled by OMs, and argue that Amharic OMs are pronominal clitics partially because of this specificity interpretation (2018:1037). While the previous sections have made it clear that objects move from their base-generated site to the right-dislocated position, this issue of specificity should still be explored as a possible constraint.

It is likely that this observable phenomenon in which object-marked DPs are interpreted as specific is due to their structural position that allows them to Agree, rather than a feature on the DPs themselves. According to Diesing, vP "corresponds to the nuclear scope and forms the domain of existential closure" (1992:377), meaning that indefinite DPs that remain within vP at LF are interpreted as non-specific. Baker & Kramer also use this observation to diagnose the function of OMs in Amharic, as nominal objects may remain in-situ and still be doubled by corresponding pronominal clitics (2018). The arguments presented in the current study align well with this hypothesis, since movement to a dislocated position removes DPs from this existential domain, allowing moved DPs to be interpreted as specific. This also naturally explains why *pro* is always dislocated; *pro* always has the anti-focus feature, since it is a dropped pronoun. Evidence from related language Zulu also supports the hypothesis that "focused, indefinite, and bare nouns cannot be right-dislocated" (Buell 2008:10).

of specificity. The types of nominals that I will use to explore this hypothesis are those which Baker & Kramer identify as "less than fully referential": universally quantified DPs (Section 4.1); indefinite NPs (Section 4.2); and interrogative DPs (Section 4.3)[5] (2018:1037).

4.1 Universally Quantified DPs

It appears that universally quantified DPs can move to the dislocated position, leaving a quantifier in-situ. Example (15) demonstrates how the nominal object in (14) can be represented by *pro* and moved to the dislocated position. The conjoint verb form suggests that the quantifier is stranded in (15), leaving it within vP. *pro* must be base-generated low to value the *φ*-features on the quantifier, then moved to a dislocated position to value the *φ*-features in the verbal complex.

(14) ba-gya di-awu j-othe]$_{vP}$
2-eat 10-fish 10.QUANT-all]$_{vP}$
'They (cl 2) eat all the fish.'

(15) ba-di-gya t_i j-othe]$_{vP}$ *pro*$_i$
2-10.OM-eat t_i 10.QUANT-all]$_{vP}$ *pro*$_i$
'They (cl 2) eat them (cl 10) all.'

The interpretation in (15) could still possibly be a specific reading, as if to say "They eat them all, the fish that were available to eat" rather than a generic reading of "They eat them all, the fish in the world." This flexibility in interpretation is accounted for by Diesing's (1992) theory that vP-external DPs may receive both specific and non-specific interpretations. To complete the paradigm, (16) shows how the quantified phrase with a nominal object can be fully dislocated, and (17) shows that a quantified phrase with *pro* can also be fully dislocated.

(16) ba-di-gy-ago]$_{vP}$ hombe di-awu j-othe
2-10.OM-eat-DJ]$_{vP}$ today 10-fish 10.QUANT-all
'They (cl 2) eat them (cl 10) today, all the fish.'

(17) ba-di-gy-ago]$_{vP}$ hombe *pro* j-othe
2-10.OM-eat-DJ]$_{vP}$ today *pro* 10.QUANT-all
'They (cl 2) eat them (cl 10) all today.'

It is possible that the speaker's interpretation of specificity would change based on a configuration like (16) (specific due to high structural position) compared to (14) (non-specific due to low structural position), but these readings were not distinguishable during elicitations. Further examples and a larger speaker sample would improve this analysis.

5

4.2 Indefinite NPs and NPIs

A better test of the specificity constraint is indefinite NPs. Indefinite NPs are difficult to elicit in Shekgalagadi since there is no morphological distinction between "the dog" and "a dog." NPIs provide a good testing environment for indefinite NPs (Riedel 2009; Buell 2008). Example (18) shows that NPIs have *φ*-features, as they trigger agreement when in the subject position.

(18) di-itchwa di-pe ase-di-bwal-e mo-lola
10-dog 10-any NEG-10.OM-see-FV.PST 1-man
'No dogs saw the man.'[6]

It is evident that NPI quantifiers cannot be stranded like the quantifier in (15). First, consider example (19), which shows the quantifier "any" in the object position:

(19) ase ba-bwal-e di-itchwa di-pe
NEG 2-see-FV.PST 10-dog 10-any
'They (cl 2) didn't see any dogs.'

Comparing (15) (stranded universal quantifier) to (20), the NPI quantifier "any" may appear without a nominal DP, but there is no OM in the verbal complex, which shows that there is no corresponding dislocated *pro*. Therefore, it seems that *pro* and the quantifier remain in-situ:

(20) ase ba-bwal-e *pro* di-pe]$_{vP}$
NEG 2-see-FV.PST *pro* 10-any]$_{vP}$
'They (cl 2) didn't see any (cl 10).'

The negation morpheme is not part of the NPI, as shown in (21). (21) also shows that an OM and null *pro* changes the interpretation to a reference to specific animals.

(21) ase ba-di-bwal-e
NEG 2-10.OM-see-FV.PST
Intended: 'They (cl 2) didn't see any (cl 1(264(theBT-9-)-2Ty1288416.5]TjETBT11.95520011.955217.9

Buell notes that “the fact that some NPIs are clearly VP-external further shows that bare nouns must remain inside the VP not in order to be licensed by negation, but due to some other property such as indefiniteness, non-givenness, or focus” (2008

(27) ke **enyi** she mo-sadi o-**shi**-go-h-ayo
COP what 7.LINK 1-woman 1-7.OM-2SG.OM-give-DJ
'What (cl 7) is it that the woman is giving you?'
Lit: 'What is it that the woman is giving you it (cl 7)?'

(28) ke **enyi** ze mo-sadi o-**bi**-go-h-ayo
COP what 8.LINK 1-woman 1-8.OM-2SG.OM-give-DJ
'What (cl 8) is it that the woman is giving you?'
Lit: 'What are these that the woman is giving you them (cl 8)?'

(29) *ke **enyi** ze mo-sadi o-□-go-h-ayo
COP what 8.LINK 1-woman 1-□-2SG.OM-give-DJ
Intended: 'What (cl 8) is it that the woman is giving you?'

(27) and (28) suggest that clefted wh-words are base-generated in the complement of V and dislocated (for agreement with v). Alternatively, it is possible that clefted wh-words are base-generated in the clefted position, and the OM is agreeing with *pro* in a dislocated position. This is supported by example (30), in which a nominal object occupies this position while maintaining the intended interpretation.

(30) ke **enyi** she mo-sadi o-**shi**-go-h-ayo **shi-lo**
COP what 7.LINK 1-woman 1-7OM-2SG.OM-give-DJ 7-thing
'What (cl 7) is the thing that the woman is giving you?'
Lit: 'What is it that the woman is giving you the thing (cl 7)?'

Given the above examples and discussion about interpretation of specificity being designated by an object's structural position, it's possible that a sentence like (30) would be uttered in a context where the speaker watched a woman give an object to the listener, and the speaker is asking for

5.1 A-Bar Movement

Until now, I have not diagnosed the type of movement involved in this theory. From my elicitations on universally quantified DPs, I discovered that DOs that are bound by universally quantified IOs may still be interpreted as bound when dislocated. Example (31) shows this binding.

(31) ke-bi-h-a -itchwa$_i$ i-ngwe ni i-ngwe]$_{vP}$ hombe bi-gyo z-ayo$_i$.
1SG-8.OM-give-FV 9-dog 9-some COORD 9-some]$_{vP}$ today 8-food 10-9.POSS.PRO
'I am giving it to each dog today, its food.'

Reconstruction is required to make the DO 'its food' refer to each dog, since 'its food' is an anaphor DP that must be bound. In (31), this DP is outside of the binding domain of 'each dog' after movement to the dislocated position. Reconstruction for binding is a property of A-bar movement, suggesting that object right-dislocation in Shekgalagadi is A-bar movement. I attempted to further prove fact this by showing that a DO bound by an IO can be dislocated. I elicited the sentences in (32)-(34) by asking the speaker to translate "I showed Theo a video of himself." In English, the IO ("Theo") would bind an anaphor in the DO ("a video of himself"). In Shekgalagadi, an equivalent sentence is made using the possessive pronoun.

(32) ke-shup-egezize Theo$_i$ -video y-agwe$_i$.
1SG-show-APPL.PST Theo 9-video 9-1.POSS.PRO
'I showed Theo his video.'

(33) ke-mo$_i$-e-shup-egeziz-ego]$_{vP}$ hombe -video y-agwe$_i$.
1SG-1.OM-9.OM-show-APPL.PST-DJ]$_{vP}$ today 9-video 9-1.POSS.PRO
'I showed him it (cl 9) today, his video.'

(34)

(41) *ke-but-a ni mo-hakga]$_{vP}$
1SG-break-FV COORD 3-knife]$_{vP}$
Intended: 'I am breaking it (cl 5) and the knife.' (prompted by: "What are you doing to the broom?")

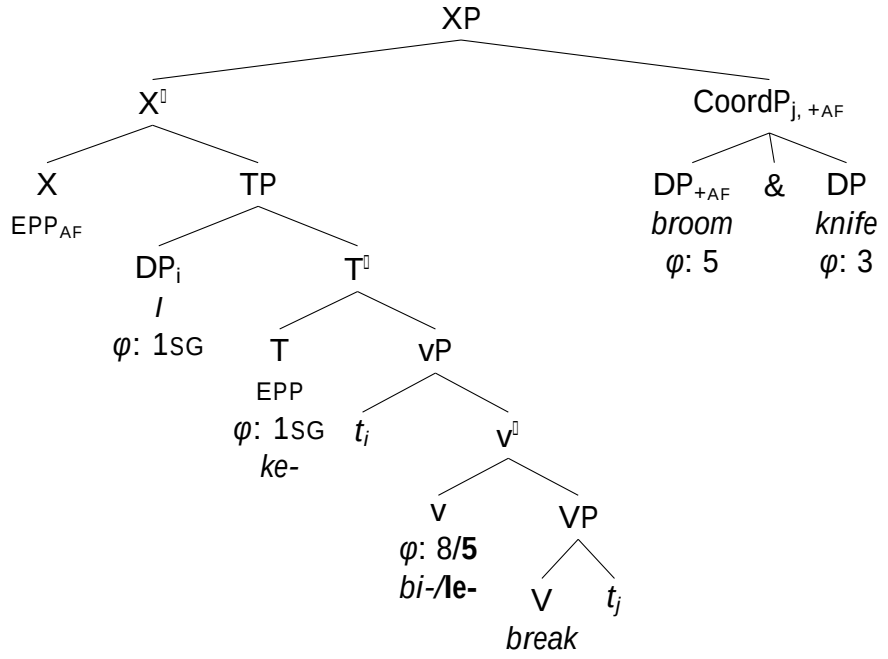
While the first conjoint is a valid agreement target, the second is not. The ungrammaticality of (42), in which the agreement on the verb matches the second nominal conjunct, and (43), in which the second conjunct is replaced by *pro*, demonstrate this asymmetry.

(42) *ke-mo$_i$-but-ago]$_{vP}$ le-helo$_i$ ni mo-hakga
1SG-3.OM-break-DJ]$_{vP}$ 5-broom COORD 3-knife
'I am breaking it (cl 3), the broom and the knife.'

(43) *ke-mo$_i$-but-ago]$_{vP}$ le-helo$_i$ ni *pro*
1SG-3.OM-break-DJ]$_{vP}$ 5-broom COORD *pro*
'I am breaking it (cl 3), the broom and it.'

Example

(46) Tree for (38):



5.3 Conclusion

Section 2 provided evidence that nominal objects that have a corresponding OM are moved to a right-dislocated position. Section 3.3 showed how this movement is triggered by EPP feature that probes for a DP with +AF, which accounts for Locality violations for DOs that object-mark across nominal, in-situ IOs. I adopted Pietraszko's proposed structure for this dislocated position (2023), as shown in (12) and (13). In Section 4 I discussed the observation that OMs have the force

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AGREEMENT RESOLUTION IN CONJOINED SUBJECTS IN SETSWANA*

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Abstract. This paper examines the agreement resolution patterns observed in Setswana conjoined subjects with both equal and conflicting phi features. Previous work identifies a preference for resolutions rules that rely on semantic features when both conjuncts have either human referents or non-human referents. In the case of conjoined subjects with differing human-value referents, speakers resolve the conflict through comitative adjunct constructions. This work tests these claims by modulating the gender and animacy of coordinate subject complexes. The data collected demonstrates an additional available resolution rule that relies on the syntactic values (gender class) of the conjuncts that triggers agreement based on a shared plural gender class. It also suggests that coordination of a human and a non-human conjunct can be allowed when they share the same animacy values and is not restricted to human/non-human.

Keywords. Coordination; Gender resolution; Syntax; Bantu languages

1 Introduction

Coordination work on languages with rich inflectional systems, such as Setswana, has heavily focused on describing and understanding the agreement patterns in coordinate complexes with conjuncts that have conflicting phi features (person, number, gender). These conflicts are resolved through resolution rules that determine what agreement form will be triggered by a coordinate noun phrase. The focus of this research paper is to investigate the agreement resolution strategies available to speakers in coordinated nominal structures and the elements that seem to influence them, whether they be syntactic in nature of semantically-based. These resolution rules are investigated through nominal additive coordination by modulating the gender and animacy of the conjuncts. The paper is organized as follows. Section 1 gives an overview of coordination and any relevant terms. Section 2 gives an overview of coordinator patterns and coordinators in Setswana. Section 3 relates to resolution rules in conjoined subjects and the agreement patterns they follow. Section 4 summarizes previous sections and addresses further avenues for research.

1.1 Coordination

A coordinating construction consists of two or more coordinands (also called coordinated phrases or coordinate complexes). Their coordinated status may be indicated by coordinators, which can be expressed as either particles or affixes. The basic patterns of coordination are the following: asyndetic, which consists of the juxtaposition of the coordinands, monosyndetic, which involves a single coordinator, and bisyndetic coordination, which involves two coordinators (Haspelmath

* Many thanks to Prof. Nadine Grimm and Prof. Asia Pietraszko who supervised this research project, our language consultant who graciously spent many hours working through elicitations sessions, and the reviewers and editors for UR Working Papers. Contact author: cacevesr@ur.rochester.edu

et al. 2004). In monosyndetic and bisyndetic coordination, there are four logically possible positions of the coordinators, these are listed in Table 1.

Table 1. Coordination patterns and coordinator positions

Asyndetic	**A B**	
Monosyndetic	**A co-B**	(prepositive, on second coordinand)
	A-co B	(postpositive, on first coordinand)
	A B-co	(postpositive, on second coordinand)
	co-A B	(prepositive, on first coordinand)
Bisyndetic	**co-A co-B**	(prepositive)
	A-co B-co	(postpositive)
	A-co co-B	(mixed)
	co-A B-co	(mixed)

1.2 Language Background

Setswana (ISO 639-3 tsn), or Tswana, is a tonal language spoken in Botswana, South Africa, and Namibia. It belongs to the Bantu language group and Sotho-Tswana family. It is closely related to the Sotho languages, such as Southern Sesotho. Setswana has a rich inflectional system, dominated by an extensive set of noun classes: groups of nouns which share class markers on verbs, adjectives, pronominal forms, and the nouns themselves. The major genders of the language are the following: 1-2 (*mosadi* mÙ-sádí woman pl. *basadi* bà-sádÎ), 3-4 (*motse* mÙ-tsÎ village pl. *metse* mÌ-tsÎ), 5-6 (*lee* lÌ-Î egg pl. *mae* mà-Î), 7-8/10 (*selepe* sÉ-lÉpÉ axe pl. *dilepe* dÌ-lÉpÉ), 9-8/10 (*podi* pÚdÎ goat pl. *dipodi* dÌ-pÚdÎ), 11-6 (*losea* lÙ-sÎá baby pl. *masea* mà-sÎá), 11-8/10 (*loso* lÙ-sô spoon pl. *dintsho* dì-ǹtshô), and 14-6 (*bothata* bÙ-thátá problem pl. *mathata* mà-thátá) (Creissels 2016).

1.3 Methodology

The Setswana data presented in the following sections are based on elicitation sessions conducted with a native speaker informant over the course of three months as part of a graduate field methods class. The consultant is a 21-year-old from Phitshane Molopo, in southern Botswana. She speaks both Setswana and English at home. In 2022, she moved to the United States to pursue an engineering degree at the University of Rochester in Rochester, New York. The elicitation sessions entail a list of sentences specifically about coordination and focuses mainly on resoution strategies when coordinating coordinands of different noun classes. The elicited constructions vary significantly across the range of relevant coordination patterns: subject agreement, multiple additive nominal coordination, adjectival coordination, comitatives, etc. It was not possible to go in depth into the analysis any of the topics at hand. There is a significant lack of verb phrase and clausal data.

2 Additive Coordination in Setswana

Additive coordination, also known as ‘conjunctive coordination’ or ‘conjunction’, is the most frequently occurring type of coordinate construction. It refers to the construction of a plural referent

individual having the referents of the coordinated NPs as individual parts. Conjunction strategies in Setswana are category-sensitive, meaning that coordinators don't always link any and all syntactic categories: noun phrases, verb phrases, clauses, adjective phrases, prepositional phrases, etc.

2.1 Nominal Additive Coordination

Nominal additive coordinate constructions make use of a single coordinator lÌ- 'and', as seen in (1). Creissels (2016) references the rules of tonal sandhi that 'ensure a clear-cut distinction between word-internal boundaries and boundaries between adjacent words' to identify the coordinator lÈ-

(4) a. mÙ-ńná jó mÙ-tl̀ÌÉIÉ jó tl̀Ì́É[1]
1-man 1.ATTR 1-tall 1.ATTR strong
'A tall, strong man.'
b. *mÙ-ńná mÙ-tl̀ÌÉIÉ tl̀Ì́É[1]
1-man 1-tall strong
'A tall, strong man.'
c. mÙ-ńná jó mÙ-tl̀ÌÉIÉ XápÊ jó tl̀Ì́É[1]
1-man 1.ATTR 1-tall CONJ 1.ATTR strong
'A tall and strong man.'
d. *mÙ-ńná jó mÙ-tl̀ÌÉIÉ Ìl̀ jó tl̀Ì́É[1]
1-man 1.ATTR 1-tall CONJ 1.ATTR strong
'A tall and strong man.'

Elicited data suggests that the adjectival coordinator is sensitive to semantic features (specifically positive attitude or evaluation). If the coordinated adjectives refer to mutually compatible characteristics of the referent of the head, the selected coordinator can be either XápÊ, used in any adjectival construction, or Ìbl̀ÌÉ, used specifically in this case. Creissels (2016), only identifies the coordinator Ìbl̀ÌÉ as an interclausal linker and is not as a coordinator for adjectival constructions, as opposed to these findings observed in (5).

(5) a. ńŜà É tònà XápÊ É n̂ts^{h}ú[1]
9.dog 9.SM 9.big CONJ 9.SM 9.black
'The dog is big and black.'
b. ńŜà É tònà Ìbl̀ÌÉ É n̂ts^{h}ú[1]
9.dog 9.SM 9.big and-in-addition 9.SM 9.black
'The dog is big and black.'

In the case of (5), the adjectives tònà 'big' and n̂ts^{h}ú[1] 'black' both refer to physical properties of the

(7) a. nàlɛ́dɬ́ ó mʊ̀-ntɪ̀ɛ́ ɬ̀bɬ̀lɛ́ ó mʊ̀-tɬ́lɛ́lɛ́
Naledi 1.SM 1-beautiful CONJ 1.SM 1-tall
'Naledi is beautiful and tall.'

b. nàlɛ́dɬ́ ó mʊ̀-ntɪ̀ɛ́ Xápɛ̃́ ó mʊ̀-tɬ́lɛ́lɛ́
Naledi 1.SM 1-beautiful CONJ 1.SM 1-tall
'Naledi is beautiful and tall.'

2.3 VP and Clausal Additive Coordination

The coordination of verb phrases and infinitive or complement clauses makes use of interclausal linkers that express additive coordination. We can again observe both Xápɛ̃́ as a coordinator in verbal phrases coordination strategies (8-a) and *li* 'and'. In addition to coordinator *mmi* 'and', which is used in additive VP coordination as well as adversative coordination (9).

Table 2. Setswana additive coordinators for VPs and clauses

Coordinator	VPs	Complement Clauses
lɬ́		(10-b)
Xápɛ̃́	(8-a)	(10-c)
m̀mɬ́	(8-b)	

Example (8) demonstrates the possible constructions for VP coordination with both available coordinators.

(8) a. kɬ̀-rátá tʰɛ̀0 Xápɛ̃́ kɬ̀-rátá nálɛ́dɬ̀
1SG-like.CJ Theo CONJ 1SG-like.CJ Naledi
'I like Theo and Naledi.'
Lit. 'I like Theo and I like Naledi.'

(10) a. kǏ-ǏtsǏ XǓrǏ ó-búá má-àká XápĒ ó-à-û:ʦʷà
1SG-know.CJ that 1-tell.CJ 6-lie CONJ 1-DJ-steal
'I know that he lies and steals.'

b. kǏ-ǏtsǏ XǓrǏ ó-búá má-àká IǏ-XǓrǏ ó-à-û:ʦʷà
1SG-know.CJ that 1-tell.CJ 6-lie CONJ-that 1-DJ-steal
'I know that he lies and steals.'
Lit. 'I know that he lies and that he steals.'

c. kǏ-ǏtsǏ XǓrǏ ó-búá má-àká XápĒ-XǓrǏ ó-à-û:ʦʷà
1SG-know.CJ that 1-tell.CJ 6-lie CONJ-that 1-DJ-steal
'I know that he lies and steals.'
Lit. 'I know that he lies as well as that he steals.'

d. *kǏ-ǏtsǏ XǓrǏ ó-búá má-àká IǏ ó-à-û:ʦʷà
1SG-know.CJ that 1-tell.CJ 6-lie CONJ 1-DJ-steal
'I know that he lies and steals.'

(11) a. kǏ-ǏtsǏ XǓrǏ ó-tǏǏIĒ[1] IǏ-XǓrǏ ÉnĒ Xá á-tǏǏà[1]
1SG-know.CJ that 1-strong CONJ-that she NEG 1-strong
'I know that he is strong and she is weak.'
Lit. 'I know that he is strong and that she is weak.'

b. *kǏ-ǏtsǏ XǓrǏ ó-tǏǏIĒ[1] XápĒ ÉnĒ Xá á-tǏǏà[1]
1SG-know.CJ that 1-strong CONJ she NEG 1-strong
'I know that he is strong and she is weak.'

c. kǏ-ǏtsǏ XǓrǏ ó-tǏǏIĒ[1] XápĒ-XǓrǏ ÉnĒ Xá á-tǏǏà[1]
1SG-know.CJ that 1-strong CONJ she NEG 1-strong
'I know that he is strong and she is weak.'

3 Subject Agreement with Conjoined NPs

Coordination work on languages with rich inflectional systems, such as Setswana, has heavily focused on describing and understanding the agreement patterns in coordinate complexes with conjuncts that have conflicting phi features (person, number, gender). These conflicts are resolved through resolution rules that determine what agreement form will be triggered by a coordinate noun phrase (Givón 1970). Corbett (1991) identified three general types of resolution patterns that languages may adopt: semantic, syntactic, and agreement with one conjunct. Semantic resolution

- if both coordinands have non-human referents, the conjoined subject governs class 8 agreement (32-a), which can sometimes be referred to as the ‘thing’ class.

These resolution rules hold true regardless of the order of the conjuncts unlike other Bantu languages, such as Ndebele (Moosally 1998) which shows a strong preference for agreement with the

trigger plural agreement; singular agreement is not acceptable. An example of a grammatical coordinate construction can be observed in example (15-a) and, correspondingly, its ungrammatical counterpart can be observed in example (15-b). Both nouns *ncha* 'dog' and *beke* 'bag' belong to class 9 which we know forms plurals in class 8 and do not share animacy values (refer to introduction for the full list of genders in Setswana).

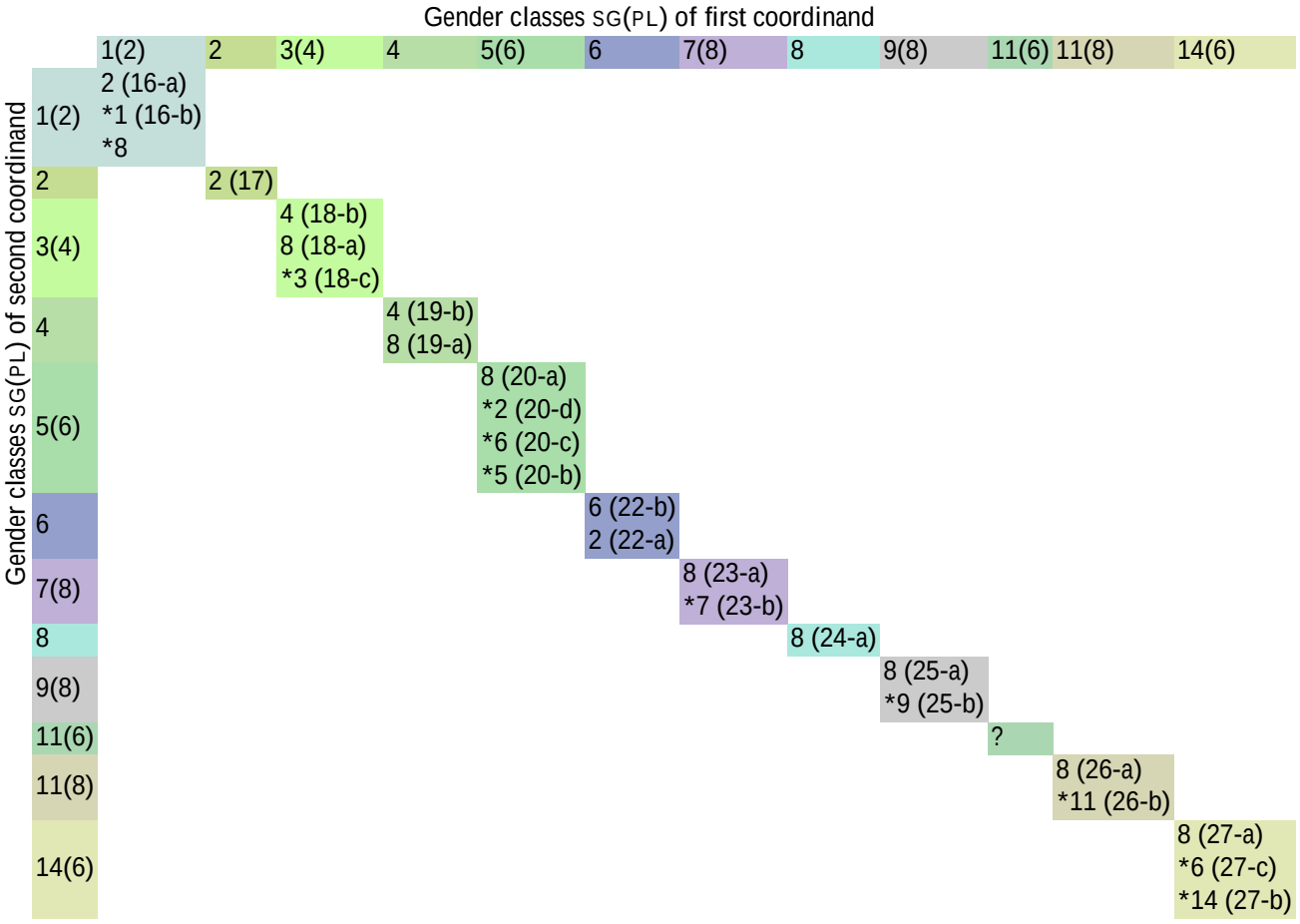
(15) a. ńŝà lì-bɛ́kɛ̀ dì nɛ́ dì látìɛ́xì̀lɛ́ mò-ʦ͡sɛ́kʷɛ́-ǹ
9.dog CONJ-9.bag 8.SM PST 8.SM lost 18-forest-LOC
'The dog and the bag were lost in the forest.'

b. *ńŝà lì-bɛ́kɛ̀ ɛ́ nɛ́ ɛ́ látìɛ́xì̀lɛ́ mò-ʦ͡sɛ́kʷɛ́-ǹ
9.dog CONJ-9.bag 9.SM PST 9.SM lost 18-forest-LOC
'The dog and the bag were lost in the forest.'

The requirement of plural agreement holds in all cases of conjoined subject coordination, with the notable exception of constructions that are rendered comitatively to express the intended coordinate reading. These comitative constructions will be discussed in Section 3.3 and are limited to constructions with referents that have non-compatible animacy values.

In addition to the aforementioned resolution rules, Cole (1955) addresses an alternative agreement resolution strategy based on syntax rather than semantics. He argues that in the case where coordinands belong to the same class in the plural, the shared plural class can be selected as the agreement gender instead of the 'human' class 2 or 'thing' class 8 as stated by the default resolution rules. Creissels (2016) verifies this claim but notes that speakers tend to prefer the resolution

Table 3. Agreement gender classes in coordinate complexes with same-class and same-animacy conjuncts



Beginning with a pair of class 1 conjuncts, *monna* ‘man’ and *mosadi* ‘woman’, which pluralize into class 2 (Table 4), we observe that they trigger gender class 2 when conjoined and in subject position (16). It is difficult to establish whether this agreement class is selected via semantic or via syntactic means since both patterns would have the same surface structure. Syntactically, class 1 referents do pluralize to class 2. However, conjuncts that share the semantic animacy value of humanness also trigger gender class 2 agreement. In the case of two conjuncts of class 2, such as *banna* ‘men’ and *basadi* ‘women’, we can observe the same pattern. The two conjuncts trigger agreement class 2 when conjoined but can trigger gender agreement via semantic or syntactic means.

Table 4. Nouns in class 1 SG and class 2 PL

singular		agreement class	plural		agreement class
mÙ-ńná	‘man’	1	bà-ńná	‘men’	2
mÙ-sádÌ	‘woman’	1	bà-sádÌ	‘women’	2

(16) a. mÙ-ńná lÌ-mÙ-sádÌ bá bà-t0nà
1-man CONJ-1-woman 2.SM 2-big
'The man and the woman are big.'
b. *mÙ-ńná lÌ-mÙ-sádÌ Ú mÙ-t0nà
1-man CONJ-1-woman 1.SM 1-big
'The man and the woman are big.'

(17) bà-ńná lÌ-bà-sádÌ bá bà-t0nà
2-man CONJ-2-woman 2.SM 2-big
'The men and the women are big.'

For the pair of gender class 3 nouns *mosi* 'smoke' and *mogale* 'rope', that form plurals in class 4 (Table 5) we can observe more flexibility with the accepted resolution strategies. Both conjuncts are inanimate objects, meaning that they will trigger agreement class 8 (18-a) by means of a semantic resolution rule. However, the coordinate complex is also able to trigger agreement class 4 based on the plural class of the conjuncts, as seen in (18-b). This is the only other observed instance, besides (29-b) which involves classes 5 and 11, where two conjuncts in singular form trigger their shared plural gender class, following a syntactic resolution agreement rule. All other recorded examples of a coordinate complex triggering the plural gender class of its conjuncts required the conjuncts to be in their plural form before coordination. An example of this type of construction can be seen in (19-b).

Table 5. Nouns in class 3 SG and class 4 PL

singular		agreement class	plural		agreement class
mÙ-sÌ	'smoke'	3	mÊ-sÌ	'smokes'	4
mÙ-XálÉ	'rope'	3	mÊ-XálÉ	'ropes'	4

(18) a. mÙ-sÌ lÌ-mÙ-XálÉ dÌ dÌ-ɲtsʰ0
3-smoke CONJ-3-rope 8.SM 8-black
'The smoke and the rope are black.'
b. mÙ-sÌ lÌ-mÙ-XálÉ É mÊ-ɲtsʰ0
3-smoke CONJ-3-rope 4.SM 4-black
'The smoke and the rope are black.'
c. *mÙ-sÌ lÌ-mÙ-XálÉ Ú mÙ-ɲtsʰ0
3-smoke CONJ-3-rope 3.SM 3-black
'The smoke and the rope are black.'

b.

(21) a. lɛ̀-sɔ̀lɛ́ lì lɛ̀-pɔ̀dɨ̀sì bá bà-tɔ̀nà
5-soldier and 5-policeman 2.SM 2-big
'The soldier and the policeman are big.'
b. *lɛ̀-sɔ̀lɛ́ lì lɛ̀-pɔ̀dɨ̀sì á mà-tɔ̀nà
5-soldier and 5-policeman 6.SM 6-big
'The soldier and the policeman are big.'

(22) a. mà-sɔ̀lɛ́ lì mà-pɔ̀dɨ̀sì bá bà-tɔ̀nà
6-soldier and 6-policeman 2.SM 2-big
'The soldiers and the policemen are big.'
b. mà-sɔ̀lɛ́ lì mà-pɔ̀dɨ̀sì á mà-tɔ̀nà
6-soldier and 6-policeman 6.SM 6-big
'The soldiers and the policemen are big.'

For class 7 nouns that pluralize into gender class 8 (Table 7), animacy values become crucial to differentiate between syntactic and semantic resolution strategies, specifically for conjuncts that have animacy [-] values and humanness [-]. This parallels the ambiguity issue encountered with class 1 referents that pluralize into class 2. The difficulty lies in that both class 2 and class 8 are the two designated classes for agreement resolution based on semantic features. Therefore conjuncts that originally pluralize into either of the two classes will render an identical coordinate complex with an identical surface structure regardless of the resolution strategy employed. Taking the pair of class 7 inanimate conjuncts *sekipa*

the additional syntactic resolution rule that triggers agreement in that same class. This can be observed with the nouns *borotho* 'bread (sg)' and *boroke* 'pants (sg)' which, once pluralized into *marotho* 'bread (pl)' and *maroke* 'pants (pl)', can agree with the appropriate agreement class based on animacy values (27-a) or keep their plural class 6 agreement (27-c).

Table 10. Nouns in class 14 SG and class 6 PL

singular		agreement class	plural		agreement class
bÙ-r0t^{h}0	'bread'	14	mà-r0t^{h}0	'breads'	6
bÙ-r0k^{w}É	'pants (sg)'	14	mà-r0k^{w}É	'pants (pl)'	6

(27) a. bÙ-r0k^{w}É lÌ-bÙ-r0t^{h}0 dÌ dÌ-t0nà
14-pants CONJ-14-bread 8.SM 8-big
'The pants (sg) and the bread are big.'

b. *bÙ-r0k^{w}É lÌ-bÙ-r0t^{h}0 bÚ bÙ-t0nà
14-pants CONJ-14-bread 14.SM 14-big
'The pants (sg) and the bread are big.'

c. *bÙ-r0k^{w}É lÌ-bÙ-r0t^{h}0 á mà-t0nà
14-pants CONJ-14-bread 6.SM 6-big
'The pants (sg) and the bread are big.'

(28) a. mà-r0k^{w}É lÌ-mà-r0t^{h}0 dÌ dÌ-t0nà
6-pants CONJ-6-bread 8.SM 8-big
'The pants (pl) and the breads are big.'

b. mà-r0k^{w}É lÌ-mà-r0t^{h}0 á mà-t0nà
6-pants CONJ-6-bread 6.SM 6-big
'The pants (pl) and the breads are big.'

3.2 Different Class, Same Animacy

In the case of coordinate complexes with same-class conjuncts that have different animacy values, it is unclear whether animacy values are sensitive to humanness or not. In example (29-b), we observe an instance of two nouns belonging to different noun classes (lÈ-p0dÌsÌ 'policeman' and lÙ-sÌá 'baby', class 5 and class 6 respectively) having two gender resolution strategies available for coordination constructions while sharing the same animacy value (both are animate and human referents). One acceptable strategy is based on their [human] animacy values (29-a) and the other one is based on their shared plural class (29-b). This supports the claim that, in certain cases, when two coordinands share the same plural class they may trigger that agreement class when coordinated. Moreover, it does not provide evidence to support Creissel's claim that semantic agreement takes precedence over morphological agreement. If anything, it seems that both are

Table 11. Nouns with human referents from mixed gender classes and shared plural class

singular		agreement class	plural		agreement class
lɛ̀-pɔ̀dɪ̀sɪ̀	‘policeman’	5	mà-pɔ̀dɪ̀sɪ̀	‘policemen’	6
lʊ̀-sɪ̀á	‘baby’	11	mà-sɪ̀á	‘babies’	6

(29) a. lɛ̀-pɔ̀dɪ̀sɪ̀ lɪ̀-lʊ̀-sɪ̀á bá bà-tɔ̀nà
5-policeman CONJ-11-baby 2.SM 2-big
‘The policeman and the baby are big.’

b. lɛ̀-pɔ̀dɪ̀sɪ̀ lɪ̀-lʊ̀-sɪ̀á á mà-tɔ̀nà
5-policeman CONJ-11-baby 6.SM 6-big
‘The policeman and the baby are big.’

In the case of mixed-class coordinands that do not share a plural class, the only acceptable con-

(31) a. mÙ-sádǏ lǏ-lÙ-sǏá bá bà-t0nà
1-woman CONJ-11-baby 2.SM 2-big
‘The woman and the baby are big.’

b. *mÙ-sádǏ lǏ-lÙ-sǏá ó mÙ-t0nà
1-woman CONJ-11-baby 1.SM 1-big
‘The baby and the woman are big.’

c. *mÙ-sádǏ lǏ-lÙ-sǏá á mà-t0nà
1-woman CONJ-11-baby 6.SM 6-big
‘The baby and the woman are big.’

d. *mÙ-sádǏ lǏ-lÙ-sǏá lÚ lÙ-t0nà
1-woman CONJ-11-baby 11.SM 11-big
‘The baby and the woman are big.’

b. *sɛ́-lɛ́pɛ́ lì-lɛ́-fɛ́l0 lɛ́ lì-t0nà
7-axe CONJ-5-broom 5.SM 5-big
'The axe and the broom are big.'
c. *sɛ́-lɛ́pɛ́ lì-lɛ́-fɛ́l0 á mà-t0nà
7-axe CONJ-5-broom 6.SM 6-big
'The axe and the broom are big.'
d. *sɛ́-lɛ́pɛ́ lì-lɛ́-fɛ́l0 sɛ́ sɛ́-t0nà
7-axe CONJ-5-broom 7.SM 7-big
'The axe and the broom are big.'

Additionally, we observe that the relative order of the two coordinands has no significance for the agreement resolution strategies available for each constructions. As seen in example (32-a), where the first coordinand is *lefelo* 'broom' followed by *selepe* 'axe', and example (33-a), where the first coordinand is 'axe' followed by 'broom'.

3.3 Different Class, Different Animacy

Resolution rules based on semantic features specifically describe the expected behavior of a pair of conjuncts that share animacy and humanness values (Cole 1955). It is unclear what resolution strategies are available for pairs with mixed animacy values. Creissels (2016) suggests that coordination constructions with a human coordinand and a non-human coordinand are disallowed, since resolution rules for different animacy coordinate complexes are based solely on the human animacy values of referents (Creissels 2016). He demonstrates how speakear bypass this limitation by rendering the second coordinand as a comitative adjunct. It seems any constructions with a non-human coordinands, regardless of animacy [+] value (e.g. animals, plants), will also be rendered comitatively (34-b).

(34) a. *mʊ̀-ńná lì-nʃ́à bá wɛ̂:ʦ́ɛ́ m0-nòkɛ̂-ɴ̄
1-man CONJ-9-dog 2.SM fall.PRF.CJ 18-river-LOC
'The man and the dog fell into the river.' (Creissels 2016)
b. mʊ̀-ńná ó wɛ̂:ʦ́ɛ́ m0-nòkɛ́-ɴ̄ lì-ɲ̂ʃà
1-man 1.SM fall.PRF.CJ 18-river-LOC COM-9-dog
'The man and the dog fell into the river.'
Lit. 'The man fell into the river with the dog.' (Creissels 2016)

While data from our speaker confirms the need for comitative adjuncts in coordination constructions that involve the union of an inanimate (animacy [-]) and an animate (animacy [+]) conjunct (35-c), our findings differ from those by Creissels (2016), suggesting that coordination restrictions on different animacy constructions are based on general animacy values instead of specific human/humanness animacy values. In other words, constructions [animal/human] are allowed for our speaker. Example (34-a) (Creissels 2016) is deemed ungrammatical by his speaker but is an acceptable construction in our data (35-a).

(35) a. mÙ-ńná lÌ-ńŝà bá wÊ:tś mÔ-nòkÊ-Ñ
1-man CONJ-9-dog 2.SM fall.PRF.CJ 18-river-LOC
'The man and the dog fell into the river.'

b. *mÙ-ńná lÌ-bÉ:kÊ bá wÊ:tś mÔ-nòkÊ-Ñ
1-man CONJ-9-bag 2.SM fall.PRF.CJ 18-river-LOC
'The man and the bag fell into the river.'

c. mÙ-ńná ó wÊ:tś mÔ-nòkÉ-Ñ lÌ-bÉ:kÊ
1-man 1.SM fall.PRF.CJ 18-river-LOC COM-9-bag
'The man and the bag fell into the river.'
Lit. 'The man fell into the river with the bag.'

As observed in (35-c), the comitative marker lÌ is the same marker used to express conjunction, as seen in

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