

A Syntactic Analysis of Raising Structures in Kĩmũthambĩ

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Abstract: This paper provides a syntactic analysis of noun phrase movement in raising predicates in Kĩmũthambĩ, a Bantu language, spoken in Kenya. Kĩmũthambĩ belongs to the larger Kikuyu-Kamba group (E50) and is classified as E531 Mwimbi-Muthambi by Eberhand et al. (2022). The study is guided by the Minimalist Program developed by Chomsky (1995). This theory recognizes that there is always a trigger movement which is the need to check features at an appropriate landing site. The paper demonstrates that Raising in Kĩmũthambĩ is triggered by need to check case features. Since raising verbs cannot assign case to a NP, the NP must move to a position in a sentence where it can be assigned case. This according to Carnie (2007) is due to the fact that the NP and the case assigner must be local in such a way that it must be the specifier or the complement of the case assigner, in order to check the feature of case. Case therefore becomes a mandatory trigger for movement of NPs that are not in positions that can be assigned case as in the case of raising predicates. The paper also demonstrates that unlike in English where raising occurs on non-finite clauses only, Kĩmũthambĩ allows raising of subjects out finite clauses a situation referred to as hyper-raising. This study contributes to the study of Kĩmũthambĩ, a language that has had little research attention. It also contributes to the body of knowledge on raising structures in Bantu languages.

Keywords: Finite clause, Hyper raising, Non-finite clause, Raising

How to Cite this Article:

Kaburo, D. K. (2022). A Syntactic Analysis of Raising Structures in Kĩmũthambĩ. *Journal of Linguistics, Literary, and Communication Studies*, 1(2), pp. 44-53.

Introduction

This paper examines movement of the noun phrase (NP) in Kīmūthambī with regard to raising structures. The paper is organized as follows: section one is an introduction. Section two, provides the background information on raising in English with reference to aspects of case which according to Carnie (2007), the NP and the case assigner must adhere to the locality constraint. The NP being assigned case is either the specifier or the complement of the case assigner, so that case features are checked. Section three provides a syntactic analysis of the various types of raising in Kīmūthambī while section four provides a summary of the findings of this study and the conclusion made.

Syntactic Analysis of Raising in English

Raising is a type of sentence construction that is analysed under NP- movement in Generative Grammar (Zeller 2014). Radford (1988) indicates that the derivation of raising structures lies in movement of an NP from its canonical position to another position in structure. Majorly, in raising constructions, the subject of an embedded infinitive clause becomes the subject or object of the main clause. This movement involves some level of transformation associated with the two levels of syntactic representation; the D-structure and S-structure (Carnie, 2007). According to Radford (2004), the D-structure represents the basic structure of a sentence and it illustrates argument relations such as the external argument being base generated in the subject position relative to their predicate while internal arguments being governed by the predicate. The S-structure on the other hand provides the surface structure of the sentence, which reflects the actual ordering of the elements and their case forms.

Carnie (2007) describes the process of NP-movement as being a factor of the fact that certain NPs are found in sentence positions that cannot be accounted for thematically. Their presence in such positions must therefore be attributed to movement. This movement, according to Haegeman (1991), is mainly caused by passive verbs, raising verbs and raising adjectives. In English raising, involves moving a given NP from a non-finite clause in an embedded clause which cannot assign case to a finite main clause where case can be assigned (Carnie, 2007). Polinsky (2013) posits that raising constructions in English are clause-external syntactic operations that move arguments across clause boundaries and include subject-to-subject and subject-to-object raising.

In Subject-to-Subject raising the NP moves from its canonical position where it is assigned its theta role in the non-finite clause to the specifier TP of the main clause. The raised subject is assigned its theta role by the non-finite verb however since the clause is non-finite as in (1b) the NP cannot have its case features checked and therefore has to move to Spec TP of the finite main clause to have nominative features checked and also to satisfy EP (Carnie, 2007) as illustrated by (1a). In (1c) illustrates that in the event that the embedded clause is finite and Spec TP of the main clause has a subject then the subject *Mary* needs not move since both case and EPP features are checked.

(1a) [Mary_i appears [t_i to love John]]

(1b) [____ appears [Mary to love John]]

(1c) [It appears that [Mary loves John]]

Subject-to-object raising involves movement of the subject of the non-finite clause to the object position of the main clause in order to have case features assigned. Carnie (2007) indicates that the raised NP gets its theta role from the predicate of the embedded clause as in (2a) and then moves to object position of the main clause where it is assigned accusative features (2b) by the main clause predicate.

(2a) [We expect [Mūthomi to dance]]

(2b) [We expect Mūthomi_i [t_i to dance]]

Mūthomi is the agent of the verb *dance* and the subject *we* is the experiencer of the verb *expect*. *Mūthomi* therefore does not get its theta role from *want* but rather gets it from *dance*. *Mūthomi* in (2a) functions logically as the subject of the embedded clause and not as the direct object of the verb *expect* (Polinsky, 2013).

Syntactic Analysis of Raising in Kĩmũthambĩ

This section provides a syntactic analysis of the various instances of raising noted in Kĩmũthambĩ and the motivation behind movement of the NP.

Subject to Subject Raising in Kĩmũthambĩ

Subject to Subject raising involves movement of a subject of an infinitival clause to the specifier of the main clause TP. This kind of raising in Kĩmũthambĩ is licensed by verbs such as *ũmba* or *ikara* (likely /seems /looks/. Consider the sentences in (3):

- (3a) *Kwa-ũmbĩk-a Gatwĩri a-ka-gũra ngũo*
 Exp-likely-FV 1Gatwĩri 1SM-FUT-buy- 10clothes
 ‘It is likely that Gatwĩri will buy clothes’
- (3b). [*Gatwĩri_i a-ũmb-a [t_i kũ-gũr-a ngũo]*]
 [1Gatwĩri_i 1SM-likely-FV [t_i to-buy-FV 10clothes]]
 [‘Gatwĩri_i is likely [t_i to buy clothes’]]
- (3c).* *a-ũmb-a Gatwĩri kũ-gũr-a ngũo*
 1SM-likely-FV 1Gatwĩri to-buy-FV 10clothes
 ‘Gatwĩri is likely to buy clothes’

Sentence (3a) shows a sentence with an expletive as its subject. The verb *aũmba* which takes the embedded clause as its complement. This structure indicates that the NP *Gatwĩri* is assigned its theta role in the embedded clause as an agent of carrying out the action of *buying clothes*. Since the subject position of the matrix clause is replaced by the expletive and the embedded clause is finite, the NP does not necessarily have to move to get case since case is checked by the finite T in the embedded clause. Hence the NP *Gatwĩri* remains in the embedded clause since its case and agreement are met at this point.

In sentence (3b), however, the NP *Gatwĩri* appears in the subject position of the matrix clause far removed from its predicate *kũgũra ngũo* (clothes). This is against the dictates of the locality principle on theta role assignment which states that theta roles are assigned within the projection of the head that assigns them, in this case, the VP (Carnie, 2007). The NP *Gatwĩri* is considered to move from the embedded clause where it is assigned its theta role to the main clause where it marks its case features at finite T position and also satisfies EPP features. The D-structure of sentence (11b) is as shown in (11c) which shows that the raising verb *aũmba* (is likely) assigns theta role to the whole proposition *kũgũra ngũo* (to buy clothes) and therefore the verb *gũra* (to buy) assigns the theta role to the NP *Gatwĩri* since she is the one who has the possibility of buying a dress. If movement does not occur the result is an ungrammatical sentence as shown in (11c). Hence a grammatical sentence is formed if the embedded subject enters into a relationship with the matrix finite T and the NP moves to the matrix clause, because only finite T can check its case.

Structure (3d) shows how the NP *Gatwĩri* moves in sentence (11b) in order to be assigned case. It moves from the verb internal position to the subject of the lower clause where it cannot be case-marked nominative since T is negatively marked for tense and Agr features. According to Chomsky (2000, 2001), case is assigned under agreement in the Minimalist Program (MP). Therefore, for matrix T to assign case to the embedded subject, it needs to agree with this NP. This agreement requires C-command. Since matrix clause T, C-commands the NP as shown in (11d), it can agree with the NP and assign nominative case to it. This operation is followed by movement of the subject NP from the embedded clause to the matrix subject position [Spec, AgrS], where it is assigned nominative case features. Additionally, the NP *Gatwĩri* can be said to move, to satisfy EPP (Extended Projection Principle) which requires the presence of a subject position in every sentence (Haegeman, 1991). This can be seen from the D-structure of the sentence (3c) which lacks a subject. The Object of the embedded clause *ngũo* (clothes) also moves from its position as a complement of the verb to Spec AgrO where it is marked with case and agreement features.

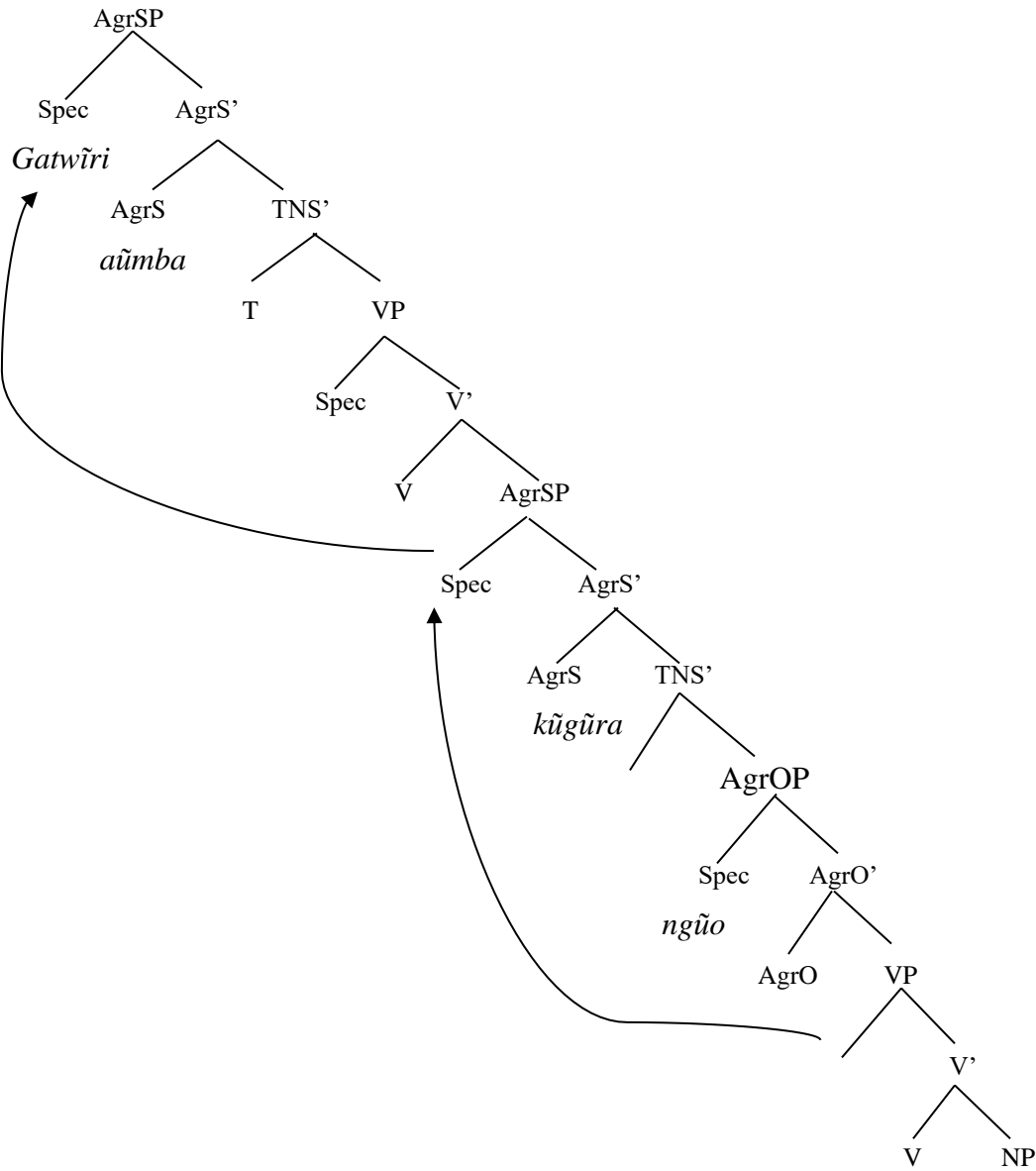


Figure 1: Subject to Subject Raising

Subject to Object Raising in Kĩmũthambĩ

Subject to Object raising was also noted in Kĩmũthambĩ. This is another type of raising where the subject NP of the non-finite clause does not target the subject position of the main clause but rather the object position of the main clause (Carnie, 2007). Consider the sentence (4):

- (4a) *Gatwĩri nĩ-a-kwend-a* [Mũthomi athom-e.]
 1Gatwĩri FOC-1SM-want-FV [1Mũthomi 1SM-read-FV]
 Gatwĩri wants [Mũthomi to read]
- (4b) *Gatwĩri nĩ-a-kwend-a Mũthomi_i [t_i athom-e.]*
 1Gatwĩri FOC-1SM-want-FV 1Mũthomi_i [t_i-read-FV]
 Gatwĩri wants Mũthomi_i [t_i to read]

The verb *nĩakwenda* in (4a) takes a non-finite clause *Mũthomi athome* (Mũthomi to read). The NP *Mũthomi* is the agent of the verb *thoma* (read). The NP '*Mũthomi*' therefore does not get a theta role from the verb *kwenda* (want), but from the verb *athome* (to read). The NP *Gatwĩri* is the experiencer of the verb *kwenda* (want) and hence the whole proposition *Mũthomi athome* (Mũthomi to read) takes the second theta role of *kwenda* (want). This shows that the NP *Mũthomi* is the logical subject of the embedded clause but since the TP is non-finite its specifier is not a case position. As a result, the NP *Mũthomi* moves to the object position of the main clause to get accusative case as shown in (4b). Structure (4c) shows how this movement occurs.

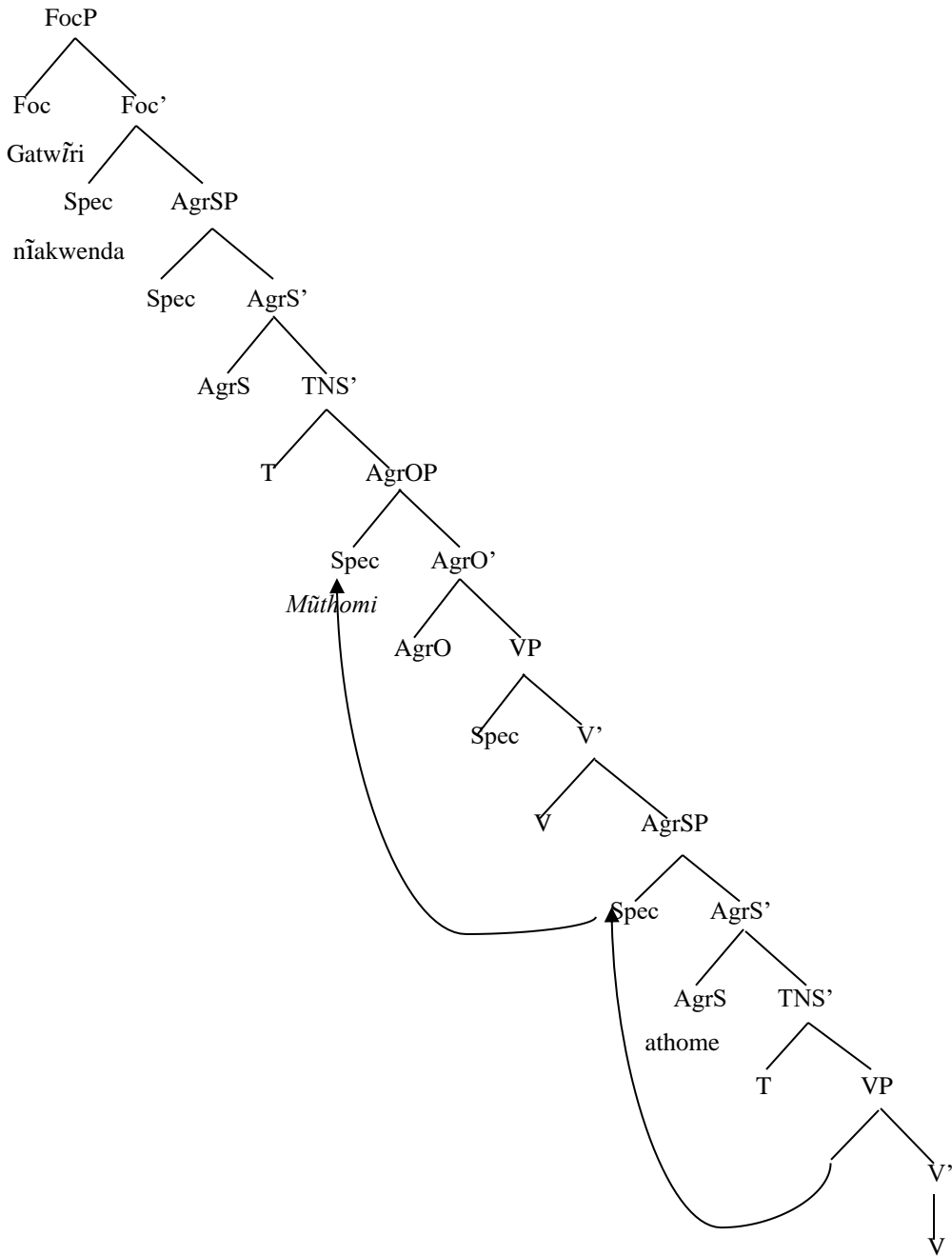


Figure 2: Subject to Object Raising

The NP *Mũthomi* moves from the verb internal position to Spec AGRs to be the subject of the lower clause and to fulfill the EPP principle. Here the subject position is negatively marked for tense and Agr features and this necessitates further movement to the second potential landing site that is the object position (Spec AgrOP) of the matrix clause where it gets accusative case. The verb *athome* moves to AgrS to check agreement features and the verb *nĩakwenda* moves from verb root to AgrS to check agreement feature then to Foc to spell out. The NP *Gatwĩri* moves from Spec VP to Spec AgrSP to check case and agreement features and then to Spec FocP.

Carnie (2007) notes that the analysis of subject NP movement to object position is plausible because if a pronoun in English was to replace the noun *Mũthomi*, the pronoun would not be in its nominative form but rather in its accusative form as shown in (4d). This therefore indicates that the NP has accusative case rather than nominative case.

(4d) *Gatwĩri* wants **him** to read.

Hyper-raising in Kĩmũthambĩ

Raising constructions are said to occur when the subject of an embedded infinitive clause appears as the subject or object of the main clause. Harfold (1985) however notes that most Bantu languages allow constructions where the subject of an embedded finite clause can become as the subject of the main clause. Raising constructions will normally have the subject of an embedded infinitive clause moving to become the subject or object of the main clause.

According to case theory, an NP subject is licensed by the finite T (Chomsky, 1995) and if a lower clause is non-finite it cannot assign case features and therefore the subject may instead be licensed by the matrix finite T. Through NP-movement therefore, the subject of an embedded clause moves to Spec TP of the finite matrix clause. According to the theory though, once an NP's case is checked, it cannot undergo further move operations and hence accounting for the unacceptability of sentence (5).

(5)**Mũthomi* seems that is buying land.

The subject *Mũthomi* cannot move from the embedded clause since case has been checked by the finite T in the embedded clause. MP analysis of raising structures is based on various assumptions. Chomsky, (2001) postulate that the raising infinitive is a bare TP, and this explains why the embedded subject must agree with and receive case from the matrix T. A T-head can only assign case if it is selected by C. In raising infinitives, which are selected as bare TPs without a CP-layer, the embedded T is therefore "defective" and fails to assign case to its subject. Secondly, this defective nature of the TP allows it to enter into an agreement relation with the matrix T and eventually allow A-movement into the matrix clause. It is assumed that finite CPs block syntactic relations between matrix elements and embedded NPs (Chomsky, 2001) and therefore, A- movement out of finite sentences is not possible in languages such as English, as shown in (5), since the embedded C selects a non-defective T which can assign case to the embedded subject. However, since raising infinitives are TPs, no CP intervenes between matrix T and the embedded subject movement can occur.

In Kĩmũthambĩ however it was noted that there are raising constructions in which the logical subject of an embedded finite clause is realized as the matrix subject. An example of such constructions is shown in (6b).

(6a) *Kũ-rĩ-onekan-a taka Mũthomi a-ka-gũr-a nyomba*
 EXP-PRS-seem-FV (that) 1*Mũthomi* 1SM-FUT-buy-FV 9a house
 'It seems that *Mũthomi* is buying a house'

(6b) *Mũthomi a-rionekan-a taka a-ka-gũr-a nyomba*
 1*Mũthomi* 1SM-PRS-seem-FV that 1SM-FUT-buy-FV 9a house
Mũthomi seems as if he or to be is buying a house'

Example (6a) gives a perceptual verb *onekana* (seem) with an expletive subject, whereas the (6b) gives an example with a raised subject. The raising verb *onekana* (seem) in both sentences take a finite, fully inflected

complement. This is unlike a language like English where a raising verb like ‘seem’ cannot take a finite complement and hence the reason sentence (6c) is ungrammatical.

(6c) * Mũthomi seems that he is buying a house.

Casterns and Diercks (2013), identify hyperraising in Lubukusu as shown in (7).

(7a) *Ka-lolekhana (mbo) babaandu ba-kwa*
EXPL-seem (that) 2people 2SM.PST-fall1
‘It seems that the people fell.’

(7b) *babaandu ba-lolekhana (mbo) ba-kwa*
2people 2SM-seem (that) 2SM.PST-fall
‘The people seem like they fell/The people seem to have fallen.’

Sentence (7a) and (7b) shows the verb -lolekhana (seem) taking finite complements.

This deviation from the standard way in which raising occurs as per the Minimalist analysis brings to question the motivation for hyper raised constructions in Bantu languages. According to Zeller (2006) this movement in Bantu languages can be accounted for by the phase theory as proposed by Chomsky, (2001). Zeller (2006) indicates that finite CPs are either "strong phases" (opaque domains) or "weak phases" (transparent domains). Because a finite CP is normally a strong phase, examples such as (15b) are typically ruled out in English. However, Bantu languages have certain verbs that may also select finite CPs which are weak phases and therefore transparent. Consequently, an NP inside a weak CP-phase may enter into a syntactic relation with the matrix clause which is a strong phase and have its nominative case assigned there. Hence the reason for movement in sentence (6b).

However, Casterns and Diercks (2013) argues against this perspective as they note that in Lubukusu and Lusaamia the constituents exhibit tense and agreement features and hence the moved subject cannot be said to move to satisfy case features. This is similarly identified in Kĩmũthambĩ as indicated by (8)

(8) *Mũthomi a-rionekan-a taka a-ra-gũr-ir-e nyomba*
Mũthomi 1SM-seems-FV that 1SM-PST-buy-APPL-FV 9 house
‘Mũthomi seems as if he bought a house.’

Casterns and Diercks (2013) argue that Bantu languages may allow movement of a finite clause because of a property they have known as hyperactivity which allows the NP to move despite case and agreement being marked on it. Casterns and Diercks continue to note that the source of hyperactivity lies in the gender component feature of noun class which renders an NP active (Casten 2002). It therefore can cause an NP of a finite clause to be hyperactive and still move.

Apart from hyper raising it was also noted that in Kĩmũthambĩ, two raising predicates can used together. Consider (9).

(9a) *Ku-rĩ,-onekan-a taka Mũthomi a-ũmb-a kũ-gũr-a Wanja.*
EXPL-PRS-seem-FV that 1Mũthomi 1SM-likely-FV to marry-FV Wanja
‘It seems that Mũthomi is likely to marry Wanja.’

(9b) [_i a-rĩ-onekan-a [taka ____ a-ũmb-a [Mũthomi kũ-gũr-a Wanja]]]
[_i 1SM-PRS-seem-FV [that ____ 1SM-likely-FV [1Mũthomi to marry-FV Wanja]]]
[_i seems [that ____ is likely [Mũthomi to marry wanja]]]

(9b) *Mũthomi a- rĩ -onekan-a (taka) a-umb-a kũ-gũr-a Wanja.*
1Mũthomi 1SM-PRS-seem-FV (that) 1SM-likely-FV to marry-FV Wanja
‘Mũthomi seems that he is likely to marry Wanja’

According to Radford (2004) in such construction two case positions are available for movement: the subject of the embedded finite clause and the subject position of the matrix clause. In English movement can only target the lower of the two positions as per the Minimal Link Condition by Chomsky (1995) which requires

a NP to target nearest potential site. In (10a) the NP *John* moves to nearest available position, that is, the subject of the embedded finite clause. However, movement of the NP to the subject position of the matrix clause as indicated in (10c) renders the sentence ungrammatical whether or not the expletive insertion applies in the low specifier of TP as shown in (10c).

(10a) [It seems [that John_i is likely t_i to have left]].

(10b) [__ seems [that __ is likely [John to have left]]].

(10c) *[John_i seems that [it is likely [t_i to have left]]].

Sentence (10b) shows that two case positions are available for movement. Due to Minimal Link Condition (MLC) by Chomsky (1995), which states that movement is only possible into the nearest relevant position, movement of an NP's forced to target the nearest potential landing. Therefore in (9) the NP *Mūthomi* can only move to lowest position and an expletive insertion applies at the higher position as in (9a). However, in Kīmūthambī movement to the higher position is possible as shown in sentence (9c). Kīmūthambī therefore seems to violate the MLC. This forms a construction Radford (2004) refers to as super-raising constructions in which a subject position is jumped in applying subject raising. Figure 3 indicates how this super-raising movement occurs in Kīmūthambī.

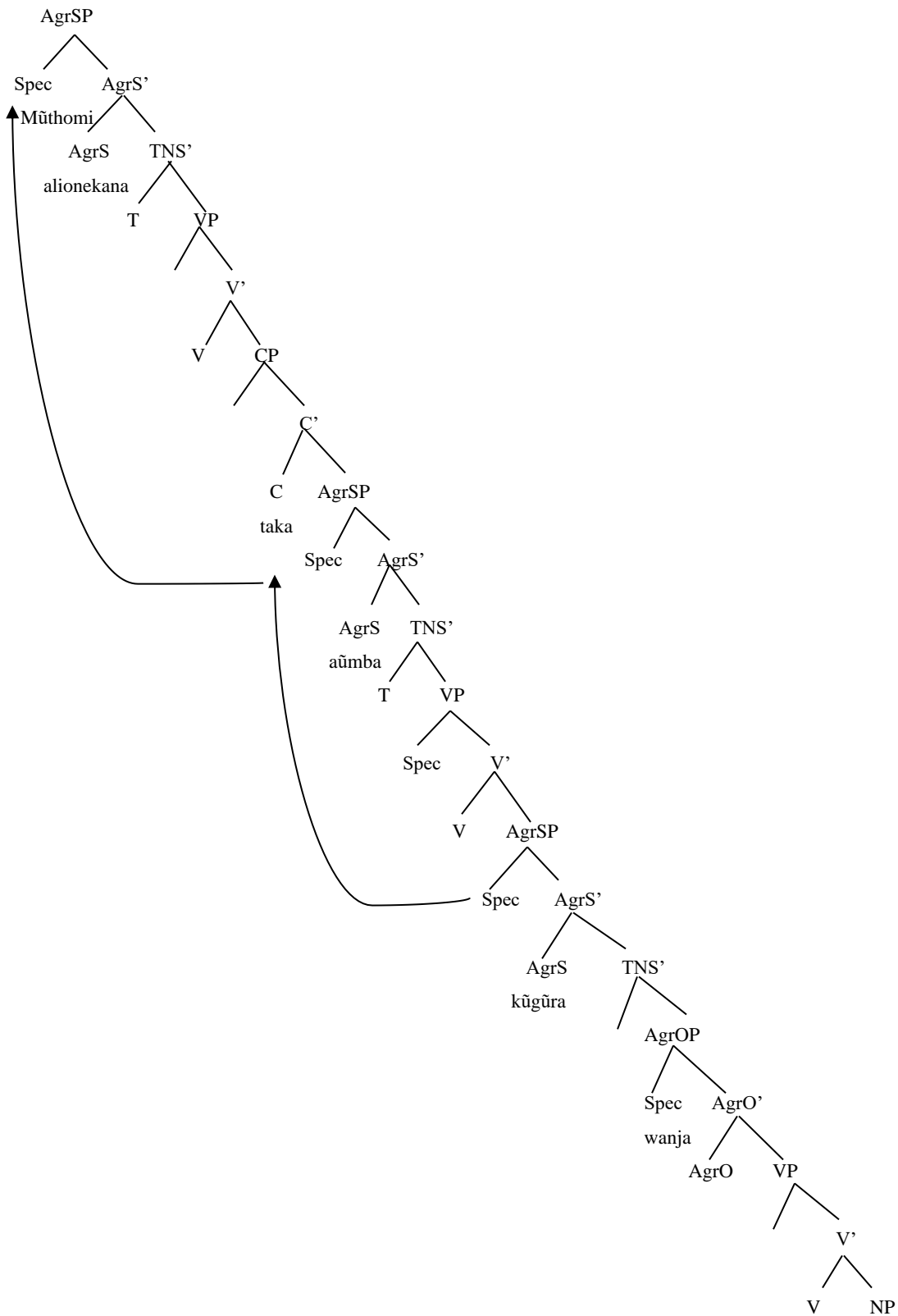


Figure 3: Shows Hyper Raising in Kimuthambi

The fact that Kīmūthambī, allows super-raising could also be attributed to hyperactivity which noted to be as a result gender component feature of noun class which renders an NP active even if case and Agreement features are checked (Casterns & Diercks (2013)). This property therefore can cause an NP of a finite clause to be hyperactive and still move even when rendered inactive once case and agreement are marked.

Conclusion

In conclusion this study found that Kīmūthambī manifests raising of subject to subject position and raising of subjects to object positions. Motivation for this movement was based on the assignment of case where a NP moves from a caseless position to where case features can be assigned. This is in accordance with the Minimalist analysis of raising constructions. However, while raising occurs as such, it was also found out that raising out of finite clauses was possible in Kīmūthambī. This is in contrast to a language like English where raising out of finite clauses is not possible. The motivation behind hyper raising structures followed Casterns & Diercks (2013) argument that gender component feature of noun class renders an NP active even if case and Agree features are checked as such causing the NP to be hyperactive.

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