#### PATRICIA SCHNEIDER-ZIOGA

# ANTI-AGREEMENT, ANTI-LOCALITY AND MINIMALITY: THE SYNTAX OF DISLOCATED SUBJECTS\*

ABSTRACT. Anti-agreement is the phenomenon whereby the morphosyntactic form of subject/verb agreement is sensitive to whether or not an agreeing subject has been locally extracted. This paper argues that, together with an anti-locality constraint on movement (following Grohmann 2000, 2003) which prohibits overly local movement as elaborated in (i-v), the occurrence of a canonically left dislocated subject in anti-agreement languages accounts for all syntax peculiar to the phenomenon in the Bantu language of Kinande: (i) subjects can extract long-distance even across islands; (ii) subjects are locally unextractable if the canonical subject/verb agreement occurs; (iii) local subject extraction requires a change in subject/verb agreement morphology; (iv) objects cannot locally extract even if they appear to do so; and (v) objects can extract long-distance; however, they are sensitive to islands. Evidence comes from an analysis of the distribution of nominal expressions in the language as well as in-depth examination of two different wh-question formation strategies in the language. This study also reveals that last resort strategy in a language is relativized to what is first resort: if resumption is first resort, movement is last resort, and vice versa.

#### 1. INTRODUCTION

The Bantu language Kinande has a rich system of agreement which interacts with wh-question formation in the following way: when a wh-subject is locally extracted the canonical subject/verb agreement is impossible. This is the phenomenon known as anti-agreement, and it is clearly illustrated in the contrast between the following examples: in examples (1a) and (1b) the morpheme *a*- indicates canonical subject/verb agreement (agr). In (1a), *a*- expresses agreement with an overtly occurring subject. In (1b) it expresses agreement with a *pro* subject. When the wh-subject (**iyondi**) is locally extracted (1c,d), the canonical agreement prefix *a*- cannot occur (1c), instead a special agreement prefix (*u*-) must occur as in (1d).

<sup>\*</sup> I am grateful to Joseph Aoun, Fusa Katada, Yen-Hui Audrey Li, Jean-Roger Vergnaud, and Maria Luisa Zubizarreta for valuable discussions and illuminating comments on this paper. I also benefited from feedback I received at the LSA annual meeting 2005 and BLS 32. I am also indebted to Marcel den Dikken and two anonymous NLLT reviewers for their valuable comments that led to substantive improvements in this paper. I would also like to thank Cedric Boeckx, Don Hoffman, and Shigeru Miyagawa for their encouragement. Unfortunately, I became aware of Miyagawa (2004) 'On the EPP' too late to incorporate it into the current paper, but the reader familiar with that paper will see that we have arrived at similar conclusions through rather different data. Other important articles addressing agreement in Bantu or anti-agreement have also appeared since this paper was first submitted. I regret that I am unable to take these interesting papers into consideration here. All errors and misinterpretation of suggestions and comments are mine. I am especially grateful to Philip Mutaka Ngessimo and Jackie Syauswa Katsuva for their endless patience with grammaticality judgments.

<sup>&</sup>lt;sup>1</sup> I have simplified the glosses to highlight agreement morphemes in this paper. In fact, canonical agreement and the past tense used in the examples above are a sequence of identical vowels: *aa* (agreement+tense). Anti-agreement is then *ua*, with *a* corresponding to the tense morpheme. I do not gloss the tense morphemes in the verbal complex.

- b. <u>a</u>-agenda *agr-left* S/he left.
- c. **\*iyondi** yo <u>a</u>-alangira Marya who that (canonical)ag-.saw Mary
- d. **iyondi** yo <u>u</u>-alangira Marya <----- ANTI-AGREEMENT who that anti.agr-saw Mary
  Who saw Mary?

I will demonstrate that the genius of Kinande as an anti-agreement language is located in the canonical occurrence of a left dislocated subject as follows:

(2)a. 
$$[topicP NP_j [IP pro_j [vP...]]$$

b. 
$$\begin{bmatrix} topicP \end{bmatrix}$$
 Kambale $_j \begin{bmatrix} IP \end{bmatrix}$  pro $_j \begin{bmatrix} vP \end{bmatrix}$  a-alangira Marya $_j \end{bmatrix}$  Kambale saw Mary. Kambale saw Mary.

This required structure, together with a constraint on how short chains can be, as elaborated in (i-v), is responsible for all syntax peculiar to anti-agreement in Kinande:

- (i) subjects are locally unextractable if the canonical subject/verb agreement occurs;
- (ii) local subject extraction requires a change in subject/verb agreement morphology;
- (iii) subjects can extract long-distance even across islands;
- (iv) objects cannot locally extract even if they appear to do so; and
- (v) objects can extract long-distance; however, they are sensitive to islands.

I follow Grohmann (2000, 2003) in assuming a tripartite division of the clause into "domains:"

## **Clausal Domains:**

(3)

Θ-Domain	VP/vP	part of derivation involving
		thematic relations
Φ-Domain	IP (and its articulation)	part of derivation involving agreement processes
Ω-Domain	CP (and its articulation)	part of derivation involved with discourse information

I adopt Grohmann's Anti-Locality Hypothesis according to which movement is hypothesized to not be overly local. Essentially, it predicts that movement cannot be too short and that it involves at least two domains: <sup>2</sup>

(4) **Anti-Locality Hypothesis:** Movement within a Prolific Domain is ruled out. Example:

\*[
$$_{\mathcal{Q}}$$
 NP $_{j}$  [ $_{\mathcal{Q}}$  NP $_{j}$  [ $_{\Phi}$  pro $_{j}$  [ $_{\Theta}$  ...]]]

Given the Anti-Locality Hypothesis, canonically dislocated subjects cannot be locally extracted. Local extraction would result in too short a chain:

(5) 
$$*[_{\Omega} wh_{j} [_{\Omega} wh_{j} [_{IP} pro_{j} [\nu P...]]]$$

Anti-agreement provides evidence for the view that there is a limit on shortness of movement. Moreover, it indicates that what counts as a last resort strategy is relativized in the sense that what is last resort depends on what is first resort. This will be evident after an investigation of subject/object asymmetries in Kinande with respect to last resort strategies where subjects require movement as a last resort and objects require base-generation as a last resort. Finally, the data and analysis of the data require a derivational view of the grammar, consonant with the view of Chomsky (1995), and thus can be considered additional support for the derivational nature of grammar.

## 2. THE REQUIREMENT THAT THE LEFT EDGE BE OCCUPIED

Subject position in Kinande has some remarkable properties, a number of which have already been explicitly noted in Baker (2003), Progovac (1993), and Schneider-Zioga (1995, 1999, 2000). In particular, all of these works have noted that non-referential subjects have a very restricted distribution. Primarily based on this observation, Baker (2003) and Schneider-Zioga (2000) have proposed that subjects in Kinande are dislocated. In this section, I will establish that the restricted distribution of non-referential subjects falls out from a more basic requirement: namely, the genius of Kinande is dictated by the syntax of its left edge. I will establish that the following condition holds:

# (6) The Kinande Left Edge Condition (K-LEC):

The left edge in Kinande must always be occupied. This is an EPP requirement,<sup>3</sup> satisfied through an agreement relation on the left edge.

I will first demonstrate that subjects in Kinande are generally dislocated. Then I will show that subjects are not dislocated just in case there is an operator in the spec of CP or some other

<sup>&</sup>lt;sup>2</sup> Grohmann (2000, 2003) allows for the possibility that movement take place within the same prolific domain if there is still a "unique address" for each occurrence within each domain. In addition, Grohmann does not assume the concept of chain as it seems to not be conceptually necessary. In contrast, I do assume chains.

<sup>&</sup>lt;sup>3</sup> The EPP, or Extended Projection Principle, is the requirement that a phrase must have a specifier.

expression capable of meeting the K-LEC. Therefore, contra Baker (2003), Kinande is not a semi non-configurational language where an agreeing subject is consistently a dislocated adjunct. Nonetheless, neither is Kinande a verb second language of the Germanic type, where categories of essentially any kind occur in the left edge, always followed by the verb. Rather, Kinande belongs to a type that we can call left edge agreement languages, where categories that can enter into agreement relations occur on the left edge followed by a lexical item that expresses agreement with the category.

# 2.1. The General Dislocation of Subjects

Let us first consider the restricted distribution of non-referential subjects, which has led researchers to claim that NPs in subject position in Kinande must be dislocated. For instance, as noted in all the above-mentioned works, the Kinande equivalent of *no X* (a non-referential NP) is impossible in subject position of a simple declarative sentence as in (7a). The intended meaning must be expressed via a cleft sentence instead as in (7b). Moreover, it would seem that subject position cannot, in general, correspond to a negative polarity item as in (8), as first noted in Progovac (1993).

- (7)a. \*si-ha-li mundo a-kagenda neg-there-be person agr-leaves ..Nobody is leaving.
  - b. si-ha-li mundo oyo u-kagenda neg-there-be person that anti.agr-leaves There is nobody that is leaving./ Nobody is leaving.
- (8) \*(o)mukali si-a-anzire Yohani (ex. from Progovac 1993)

  (augment)woman not-agr-like Yohani

  A specific/\*Any woman didn't like John.

In addition, a non-specific indefinite plural, such as *bakali* 'women' in (9)-(10), can only occur as a subject if a cleft construction is used. This is shown by the contrast between (9) and (10a). In this case, the indefinite plural is not actually related to subject position, but rather is the predicate of the copular verb ni in (10a). The other possibility is that a non-specific indefinite plural can be expressed as the "demoted" agent in a passive as in (10b):

\*(a)bakali ba-ahuka ebikene
 women agr-cooked yams
 \*out on reading: Women cooked the yams.
 (grammatical reading: The women cooked the yams.)

- (10) a. ni bakali bo ba-ahuka ebikene be women that agr-cooked yams

  Women cooked the yams. (Lit: it is women that cooked the yams)
  - b. ebikene by-ahuka-wa na bakali yams agr-cooked-pass with women The yams were cooked by women.

Furthermore, if a nominal expression in subject position is interpreted as indefinite, it is interpreted as a specific indefinite (i.e., D-linked in some sense), as noted by Baker (2003). The following illustrative example is from that work (= his example (24) with gloss simplified):

(11) omukali a-agula obuli ritunda woman agr-bought every fruit
A (single) woman bought every fruit.

In Schneider-Zioga (2000), similar facts and examples were used to support an analysis where subjects in Kinande were generated in a very high topic position. This very high topic must be connected to a thematic position in some way; the most obvious way would be via predication with a *pro* occupying the thematic subject position. The notion of "topic" here is to be equated with the "D-linked property" of a scrambled or clitic left dislocated nominal expression. This is distinct from the traditional notion of "topicalization," which limits topicalized elements to matrix clauses, semantically contrastive focus, etc. (see Anagnostopoulou et al 1997 for related discussion). In sum, Schneider-Zioga (2000) attributes the constraint on subjects such that they must be referential to the high "topic" position they occupy in Kinande.

The analysis of Baker (2003), where Kinande is viewed as a semi-pronominal argument language,<sup>4</sup> is similar to that of Schneider-Zioga (2000): the subject is generated in an adjoined position and a pronoun occurs in subject position. Baker ties this property in Kinande to the nature of agreement in this language, where he proposes the following parameter holds of Kinande and other similarly behaving languages:

(12) (= Baker's (3)) "A verb X agrees with an NP Y if and only if Y is in a dislocated, adjunct position."

Baker's analysis then attributes the restrictions on what can be a subject in Kinande to the fact that agreeing subjects are both dislocated and related to a *pro*, thus preventing an indefinite/non-specific interpretation. He suggests the following configuration:<sup>5</sup>

[NP<sub>subject</sub> [
$$_{IP} pro_{subject} ...$$
]]

Along similar lines, I will argue that a dislocated subject is base-generated on the left edge in topic position and related to a null pro in subject position.

<sup>&</sup>lt;sup>4</sup> Jelinek 1984 and Baker 1996 provide extensive discussion of the properties of pronominal argument languages.

<sup>5</sup> Actually, Poleon argues that the attachment of the subject is always as high as possible as in this case, it is

<sup>&</sup>lt;sup>5</sup> Actually, Baker argues that the attachment of the subject is always as high as possible, so in this case, it is presumably actually CP and not IP that the subject is adjoined to with subsequent verb raising. But for ease of exposition, we present it as simply being IP.

## 2.2. The Conditions Under Which the Subject Dislocation Requirement is Suspended

Baker's position that agreeing subjects are always dislocated in Kinande must be rejected based on empirical data. As discussed in Schneider-Zioga (2000), subjects which fully agree with the verb do not always occupy the dislocated "topic" position in Kinande. There are two pieces of evidence for this: one involves multiple wh-questions and the other involves a conditional clause.

# 2.2.1. Multiple Wh-Questions

The first piece of data that indicates that fully agreeing subjects can occur within the clause in a standard thematic position, and thus not in the dislocated "topic position," involves multiple whquestions. In a single wh-question sentence, a wh-subject is not allowed to stay in-situ in Kinande (a generalization which I will revise shortly). This is not surprising if the canonical subject position involves a dislocation. Dislocation is semantically incompatible with non-referential expressions because dislocation involves a discourse topic. Non-referential expressions cannot be topics:

(14) \*(iyo)**ndi** a-alangira Marya who agr-saw Mary Who saw Mary?

This contrasts with the behavior of wh-objects, which can easily remain in-situ. This is expected if only subject position is dislocated:

(15) Kambale a-alangira **ndi** *Kambale agr-saw who*Who did Kambale see?

However, it is possible for a wh-subject to remain in-situ just in case the direct object is questioned:<sup>6</sup>

(16) ekihi kyo ndi a-kalangira what that focus who agr-sees
\*What (does) who see?

In addition, if an object is questioned, a fully agreeing subject can be interpreted as an NPI:

(i) iyondi yo u-kalangira ki who that<sub>focus</sub> anti.agr-sees what Who sees what?

Note that Kinande is not sensitive to superiority. I assume that this is related to the fact that wh-words are not obligated to be ex-situ in contrast to a language like English, for example, where superiority is respected.

<sup>&</sup>lt;sup>6</sup> (16) is interpreted equivalently to the following sentence:

(17) ekihi kyo mukali sy-a-ngahuka what that<sub>focus</sub> woman neg-agr-cook
What didn't any woman cook?

(or: 'What did no woman cook?')

These facts suggest that subjects are not dislocated just in case a wh-expression occurs in the local Comp. Therefore, agreeing subjects need not be dislocated, provided the correct conditions exist. The configuration where this occurs is the following:

#### 2.2.2. Conditional Clauses

Another context where we unexpectedly find non-referential/non-specific subjects that fully agree with the verb is in conditional clauses:

(19) omukali ng'a-nga-handika ekitabu woman if'agr-conditional-write book

If a woman wrote a book... (non-specific woman preferred reading)

This is semantically a context of non-veridicality/irrealis. Therefore, it is plausible that this context is semantically incompatible with an obligatory discourse topic, namely, the dislocated subject. Consequently, a non-referential subject reading is available.

Note, on the other hand, that (18) can be stated more generally as in (20). Then, the conditional (19) is simply a subcase of (20) if we assume that the conditional clause is associated with a conditional operator in Comp:

More specifically, the conditional (19) would involve the following:

However, as the reader can confirm, a non-specific, indefinite interpretation of the subject is also odd for English under these circumstances. This strongly suggests that the restriction on non-specific indefinites in this configuration is not unique to the syntax of Kinande.

<sup>&</sup>lt;sup>7</sup> It appears difficult for a non-specific indefinite to occur as subject of a sentence if an object is questioned, contrary to expectation if the generalization put forth in the text is correct. Instead, it is most naturally interpreted as a definite NP:

<sup>(</sup>i) ekihi kyo' mukali a-ahuka what that<sub>focus</sub>' woman agr-cooked \* What did a (non-specific) woman cook?/ok: What did the woman cook?

<sup>&</sup>lt;sup>8</sup> The examples in (16) and (17) indicate that it is possible for a canonically agreeing subject to occur within IP instead of being dislocated. Given this state of affairs, what prevents a canonically agreeing subject from starting out within IP and satisfying K-LEC via movement as opposed to being base-generated on the left edge in a dislocation construction? I suggest this is prevented because canonical agreement assigns Case, and, as we will see in detail in section 3, the dislocated position on the left edge is itself associated with structural Case. Standard minimalist assumptions view an NP as unavailable for further movement to another Case position once its Case features have been checked.

[CP Conditional Operator [IP omukali subject ng'a-nga-handika ekitabu]] woman if'agr-conditional-write book

## 2.3. An Overview of the Left-Edge in Kinande

# 2.3.1. The Left-Edge in Kinande Must be Occupied by Only One Element

The previous discussion brought to light a very fundamental and intriguing property of Kinande: the left edge in Kinande is always occupied. This is achieved either by virtue of a subject being dislocated (the unmarked case), or by virtue of an operator occurring in what I assume, following Rizzi (1997, 2002), is the elaborated CP periphery. Rizzi's work on the elaborated left edge motivates the following hierarchic order of phrases (irrelevant details omitted):

(22) [Force [Topic [Focus [Topic [Finite [IP]]]]]]

Furthermore, not only must the left edge be occupied, evidence indicates it can be occupied by maximally one element: either the dislocated subject or a non-subject operator, but not both. Sentences involving locatives can be seen as conforming to the K-LEC in this light. Consider (23), which shows that a locative expression cannot simply precede the subject:

```
(i) \begin{bmatrix} IP & \dots & [CP] & iyondi & [nga & yo & Yosefu a-alangira & ]] \end{bmatrix}

\dots & who & if & that_{focus} & Joseph & agr-saw \\ \dots & Who & Joseph & saw. & (embedded clause) \end{bmatrix}
```

In all cases, they are combined with other morphemes such as the verb or focus marker (which is bi-moraic) to form a prosodic word. Therefore, it seems plausible that mono-moraic complementizers are actually prosodically motivated second position clitics, which accounts for their appearance as part of the focus complex if there is a focus particle and as part of the verbal complex in the absence of a focus particle. This conclusion seems even more warranted when we consider the word order of derivational morphemes in the verbal complex such as the causative or passive morpheme with respect to the main verb: they are always suffixes to the main verb. This is the morpheme order we would expect if Baker's (1985) Mirror Principle holds and verb raising always involves leftward attachment (as e.g. Kayne's (1994) account of word order would lead us to expect). In contrast, inflectional morphemes in Kinande are all prefixes to the verbal complex and they indicate the word order we would expect if they had simply concatenated in their normal syntactic position, without any verb raising. The complementizer precedes the entire verbal complex, including all the inflectional material. If the complementizer had combined with the verbal complex as part of verb raising, we would expect it to occur as a suffix, contrary to fact. Instead, these word order facts are consistent with a prosodically motivated clitic placement approach to word order of the complementizer in the verbal complex.

<sup>&</sup>lt;sup>9</sup> Note that a complementizer, *nga*, occurs as part of the verbal complex in (19). Baker (2003) takes this type of fact to argue for verb movement in Kinande all the way up to C<sup>0</sup>, which would contradict my account of the availability of non-specific subjects in conditionals. However, Baker's conclusion regarding the placement of *nga* might be incorrect. Kinande tends not to like mono-moraic morphemes as prosodic words. In fact, mono-moraic complementizers either occur in obvious phonological second position of a clause or, if in phonological initial position, they are in syntactic second position:

(23) \*omo-numba nene Yohani a-aya

LOC(ative)-house big Yohani agr-went
Into the big house, John went.

Instead, the locative must be focused if it is to precede the subject. Recall that when an expression is focused, as in the case of wh-questions discussed previously (recall (20)), the preverbal subject behaves as if it is no longer dislocated:

(24) omo-numba nene mo Yohani a-aya *LOC-house big that<sub>focus</sub> Yohani agr-went* Into the big house, John went.

This behavior makes sense if the subject is dislocated in (23) and the K-LEC (6) holds.

In short, at least and at most one expression occurs on the left edge in Kinande. This is exactly the finding we would expect, given that preverbal word order in Kinande is due to the syntax of the left edge and given Emonds' (1970) important work on the typology of movement that established that there is essentially only one "dislocation," in a general sense, per clause. <sup>10</sup>

#### 2.3.2. Similarities to V2

The above properties are strongly reminiscent of the verb second phenomenon, as pointed out in Schneider-Zioga (2000). That is, in verb second languages (in contexts where verb second is relevant), exactly one expression can and must occur in initial position with the verb or auxiliary verb occurring in second position. Given, as commonly assumed in the verb second literature, that the preverbal/pre-auxiliary position is a position on the left edge, we observe that only one expression occurs on the left edge in the Germanic verb second languages, just as in Kinande.

There are, however, some differences. Whereas in Germanic languages there is a verb or auxiliary in second position which agrees with the subject, in Kinande there is a lexical item in second position that indicates agreement with the expression on the left edge, as will be discussed in more detail shortly. Moreover, there is a clear alternation in Kinande between either a verb second configuration (25a) or a displaced wh-word or focused expression being followed by a focus marker (25b):

- (25) a. NP verb ....
  - b. WH that<sub>focus</sub> [NP<sub>subject</sub> verb ...]

When there is a focus marker (25b), the verb does not occur in second position, otherwise the verb does occur in second position (25a). This alternation between verb and focus marker is strongly reminiscent of the complementizer/verb alternation that is observed in Germanic verb second languages where the verb occurs in second position unless a complementizer occurs. When the complementizer is on the left edge, the verb occurs internal to the clause, in sentence final position in German for instance. Moreover, there are Germanic verb second languages that look even more like Kinande as schematized in (25b) because a wh-expression can precede the

<sup>&</sup>lt;sup>10</sup> Although Emonds' (1970) observation was made with respect to root clauses, Kinande does not make a root/embedded distinction with respect to movement generalizations.

equivalent of the complementizer *that* in those languages. Languages with this property, such as Swiss German, West Flemish, Bavarian, are mentioned in Bhatt (2002), who attributes the observation to Vikner (1995). Schematically, these Germanic languages alternate verb second with a complementizer in the case of wh-questions:

- (26) a. XP verb ...
  - b. WH that [NP<sub>subject</sub> ... verb ... ] (Swiss German, West Flemish, etc.)

What distinguishes Kinande from the above-named Germanic verb second languages vis-à-vis wh-movement is the fact that the second position lexical item (the focus marker) actually agrees with the wh-expression in noun class, and hence also in number:<sup>11</sup>

- (27) a. e**ki**hi **kyo** Kambale a-alangira what<sub>j</sub> that<sub>focus-j</sub> Kambale agr-saw What did Kambale see?
  - b. i**yo**ndi **yo** Kambale a-alangira who<sub>j</sub> that<sub>focus-j</sub> Kambale agr-saw Who did Kambale see?

I will initially refer to this phenomenon as wh-agreement, by which I mean a positive morphological/morphosyntactic reflex of extraction of a wh-expression. Note that wh-agreement is distinct from anti-agreement, briefly described in (1), which refers to the lack of subject/verb agreement in clauses in which a subject is locally extracted.

#### 2.3.3. Left-edge Agreement

The ex-situ wh-word cannot occur on its own; i.e., without the wh-agreement word also occurring:

- (28) a. \* ekihi Kambale a-alangira what Kambale agr-saw
  What did Kambale see?
  - b. \* i**yo**ndi Kambale a-alangira

    who Kambale agr-saw

    Who did Kambale see?

Focus works the same way: a lexical item that indicates focus follows the focused word and it agrees in class with the focused word. If the agreeing lexical item is absent, the sentence is ungrammatical:

<sup>&</sup>lt;sup>11</sup> Subscripting is meant as a descriptive device indicating agreement between the co-indexed items.

- (29) a. e**ki**tabu **kyo** Kambale a-asoma book<sub>j</sub> that<sub>focus-j</sub> Kambale agr-read (It's) the book (that) Kambale read.
  - b. Georgine **yo** Kambale a-alangira *Georgine*<sub>j</sub> that<sub>focus-j</sub> Kambale agr-saw (It's) Georgine (that) Kambale saw.
  - c. \*e**ki**tabu Kambale a-asoma book Kambale agr-read

In fact, from the perspective of "second position agreement" it is possible to generalize the notion of wh-agreement to all instances of agreement with an expression on the left edge. This also applies to cases where there is not a wh-expression or focused expression involved. This means that the verb second examples also involve "wh-agreement," which can be more aptly named: left edge agreement. From this perspective, we can reconsider K-LEC, which states that the left edge must be occupied in Kinande. We can now see that it is really a requirement that agreement take place between an expression on the left edge and a lexical item that occurs in second position.

The concept of left edge agreement gives us a tool to understand the cases noted by Baker (2003), who points out that non-referential (logical) subjects are possible when they are not agreed with by the verb, as in cases of locative inversion. In the locative construction, a locative phrase appears in preverbal position and the verb expresses agreement with the locative expression, a property characteristic of Bantu locative inversion constructions. In addition, the logical subject occurs post-verbally, and therefore clearly cannot be dislocated. The logical subject is most naturally interpreted as a non-specific indefinite as illustrated in the following example (= Baker's (25) with simplified gloss):

(30) omo-mulongo mw-ahika mukali *LOC-village agr-arrive woman*At the village arrived a woman.

A similar example involves so-called subject object inversion, a construction type that is wide-spread among Bantu languages. In subject object inversion, an object occurs in initial position and the verb agrees with it. Nonetheless, it is uncontroversial that the construction is not a passive. Again, the logical subject is most naturally interpreted as a non-specific indefinite. The following examples illustrate this phenomenon; the example in (32) is from Baker (= his (24) with simplified gloss):

(31) ekitabu ky-agula mukali book agr-bought woman A woman bought a book.

<sup>&</sup>lt;sup>12</sup> This view of Kinande suggests a typology that would group together and therefore expect a very similar syntax from the anti-agreement languages as well as the so-called complementizer agreement languages such as West Flemish. Tagalog also arguably belongs to this typology. Exploration and establishment of this typology goes beyond the scope of this paper.

(32) olukwi si-lu-lisenya bakali wood neg-agr-chop women WOMEN do not chop wood.

These facts have a straightforward analysis from the perspective of left edge agreement. The "inverted" expressions are on the left edge and agree with the verb via left edge agreement.

## 2.3.4. An Exception

The analysis of Kinande as a left edge agreement language predicts an exception to the generalization that at most one XP occurs on the left edge. In the following type of construction, i.e. one where agreement is in third, rather than second position, it must be that  $NP_2$  is dislocated. Moreover,  $NP_1$  is predicted to be base-generated on the left edge in such a construction:

- (33) NP<sub>1</sub> NP<sub>2</sub> AGR<sub>2</sub>
- (33) is exemplified by object dislocation in Kinande:
  - [ekitabu<sub>1</sub>, Kambale<sub>2</sub> a<sub>2</sub>-a-ki<sub>1</sub>-soma] book<sub>1</sub>, Kambale<sub>2</sub> agr<sub>2</sub>-past-(object)cl(itic)<sub>1</sub>-read The book, Kambale read (it).

An expression understood as the logical object of the clause occurs in the left periphery, followed by the logical subject. The leftmost agreement in this construction is, by hypothesis, left edge agreement. In this example, it is the agreement expressed with the logical subject. Therefore, the logical subject satisfies K-LEC (6) and necessarily occupies the left edge.

The empirical evidence supporting this conclusion is the fact that the subject cannot be non-referential under these circumstances (35a). This contrasts with the grammaticality of an in-situ wh-subject (16), repeated here as (35b), which is possible when an expression other than the logical subject fulfills K-LEC:

- (35) a. \*e**ki**tabu, ndi a-a-**ki**-soma book, (in-situ)who agr-past-cl-read
  - b. ekihi kyo **ndi** a-alangira what that<sub>focus</sub> (in-situ)who agr-saw
    Who saw what?

The literature on verb second in Germanic indicates that when the sequence  $NP_1 NP_2 V$  is licit,  $NP_1$  cannot have arrived on the left edge via movement/transformation. Instead,  $NP_1$  must be base-generated there. This is pointed out in Van Riemsdijk and Zwarts (1997) where they note that Left Dislocation in Dutch is a counterexample to Emonds' generalization that there is only one dislocation (via movement) per clause unless the LDed NP does not count for Emonds' generalization. In Kinande  $NP_1$  is resumed by a clause internal pronoun. A clitic, which agrees

<sup>&</sup>lt;sup>13</sup> This configuration is illustrated for Dutch with a construction called "Left Dislocation" (from Van Riemsdijk and Zwarts 1997 (= their (30a) with gloss and translation supplied by this author)):

in noun class with the dislocated object (boldfaced for ease of reference), occurs internal to the verbal complex. The object clitic is more deeply embedded than the subject clitic. Therefore, by minimality, it cannot express agreement with an expression on the left edge and instead, has a resumptive function.

Evidence that NP<sub>1</sub> is base-generated on the left edge in (34) is provided by the fact that dislocated objects cannot reconstruct. (See also Baker 2003 for additional arguments that fronted objects are dislocated.) That is, it is not possible for a quantifier in subject position to bind a pronoun in the dislocated object; therefore, the dislocated object does not behave as if it can be interpreted in the thematic object position:

(36) ekitabu kiwe, obuli mukolo a-ka-**ki-**soma kangikangi *book his, every student agr-tense-cl-reads regularly*His<sub>i</sub> book, [every student]<sub>k/\*i</sub> reads (it) regularly

This can be contrasted with the possibility of reconstruction for a moved (focused) object, where a pronoun in the focused object can easily be interpreted as being bound by a quantifier in subject position:

(37) ekitabu kiwe<sub>j</sub> ky' obuli mukolo<sub>j</sub> a-kasoma kangikangi.

book his that<sub>focus</sub> each student agr-reads frequently

(It is) His<sub>i</sub> book (that) each student<sub>i</sub> reads frequently. (bound reading possible)

The previous discussion has provided an overview of left edge agreement. We turn now to a consideration of the specific mechanisms involved.

#### 2.4. Second Position and the Syntax of Left Edge Agreement

I follow Baker (2003) in his suggestion that agreement in Kinande is (at least syntactically) a clitic. In addition, I borrow the observations of Schneider-Zioga (1994, 1998) and Zubizarreta (2000) regarding the syntax of configurations involving clitics. They argue that clitic constructions are best accounted for by understanding clitics as discontinuous constructions, where the clitic itself and an additional, structurally higher, projection are involved. <sup>14</sup>

Zubizarreta (2000) proposes the existence of a CL projection, structurally higher than a pronominal clitic, whose function it is to externalize arguments of a verb  $\nu$  with respect to the tense associated with  $\nu$ . This externalization is to be understood as an alternate expression of argument structure as is found in languages with pronominal clitics. According to her proposal, this is accomplished by (first) merge of a DP with CL:

In the above example we see two expressions: *haar paper* and *ik* preceding the verb *geloof*. The expression in initial position, *haar paper*, is related to a pronoun in the thematic position, in this case *het*. It is well established that the initial expression is base-generated under these circumstances. The expression in second position, *ik*, is the subject. The verb must occur in the third position.

<sup>(</sup>i) Haar paper, ik geloof niet dat mijn zusje het al heeft ingeleverd Her paper, I think not that my sister it already has given.in Her paper, I don't think that my sister has already handed it in.

<sup>&</sup>lt;sup>14</sup> See also Iatridou 1990 for important groundwork in the structure of dislocation constructions involving clitics.

(38) 
$$[DP_i [CL_i ....[T[\nu_{P/VP} ... ...]]]]$$

Zubizarreta also proposes that CL must be morphologically identified. Specifically, she suggests that: "Morphological identification of CL is achieved by some nominal morpheme with phi-features contained within the local T. This may be a clitic or a "strong" agreement affix." Furthermore, Schneider-Zioga (1994, 1998) demonstrates, based on the distribution of tonic pronouns, anaphors, and clitic pronouns in Modern Greek, that a pronominal clitic is associated with a pronoun in thematic position as well as a structurally higher DP that is resumed by the pronominal expression. That is, the thematic position that is identified by the clitic is *pro* and this, Schneider-Zioga establishes, is in addition to a D-linked DP topic, which is externalized in her proposal in a similar way to the function of CL in Zubizarreta's system. The combined insights of these two works on clitics and dislocation suggest that the above structure is best amended to the following, which can be viewed as essentially a relative clause construction with DP<sub>i</sub> a base-generated head of the relative clause: 15

(39) 
$$[CL_{PHRASE} DP_i [CL_i [IP pro_i [T [VP ... ...]]]]]$$

The requirement that a DP occur in the spec of CL can be understood as the manifestation of an EPP requirement of CL.

Having considered the discontinuous nature of clitic constructions, there is no reason not to identify Zubizarreta's CL projection with the lower Topic Phrase in Rizzi's 1997, 2002 work on the elaborated left edge<sup>16</sup> where the following hierarchic order of phrases is motivated (cf. (22)):

According to my analysis at this point, the head of the rightmost Topic Phrase (that is, CL) is morphologically identified by the subject agreement clitic in Kinande; moreover, the requirement that the left edge must always be occupied tells us that CL has an EPP feature. <sup>17</sup> Finally, the fact that second position is always related to agreement indicates that CL has uninterpretable  $\Phi$ -features:

[41) 
$$[topicP \ DP \ [CL_{\{+EPP, -int \Phi-Features\}} \ [IP \ pro \ [ [clitic \ agr + V \ ] \ ]]]]]$$

EPP satisfied morphological identification via AGREE;  $\Phi$ -features checked

<sup>&</sup>lt;sup>15</sup> Note that the proposed structure has something in common with Baker's (2003) analysis of Kinande as a semi-pronominal argument language; that is, Baker connects agreement to dislocation. But an additional advantage of the proposal in the text, namely that the locus of the syntax of Kinande lies in its property of left edge agreement, is located in the fact that word order in Kinande follows straightforwardly. Given an "agreement second" analysis rather than a (semi-) pronominal argument analysis where the subject is adjoined to IP, we have an immediate explanation for why Kinande word order is fixed. Namely, although the subject in the unmarked case is clearly dislocated, the word order of Kinande is strictly SVO; therefore, the subject must occur in the initial position of the clause. In contrast, pronominal argument languages are non-configurational with virtually free word order.

<sup>&</sup>lt;sup>16</sup> Zubizarreta (2000) herself would not make this equivalence since, in her system, aspects of interpretation such as topic and focus are not encoded in the syntactic structure per se.

<sup>&</sup>lt;sup>17</sup> Note that a left edge agreement language would be verb initial if CL has no EPP requirement.

In sum, we see that Kinande displays verb second via the AGREE relation between CL and the agreeing verb. Furthermore, the fact that verb second is mediated by CL captures a very old intuition concerning verb second going back to Wackernagel (1892) and more recently elaborated in Anderson (1993), namely, verb second is related to second position clitics. <sup>18</sup>

## 2.5. Summary

In this section, I have established a number of important facts concerning subjects in Kinande. In particular, I have demonstrated that subjects are generally dislocated, but their property of being dislocated is suspended under certain circumstances. More specifically, I have proposed that the true genius of subjects in Kinande lies in their special relation to the left edge via the K-LEC. The K-LEC says that the left edge in Kinande must always be occupied and this occupation is mediated via an agreement relation in the left edge. Finally, I proposed a specific mechanism to capture this.

#### 3. ANTI-AGREEMENT

We are now in a position to understand why anti-agreement occurs. In 3.1, I will establish the distribution of anti-agreement and show that it is in complementary distribution with canonical agreement. In 3.2, I will show that, in general, wh-questions and focus in Kinande involve movement; and therefore, anti-agreement is associated with movement. In 3.3, I discuss how the syntax of the focus marker relates to anti-agreement. In section 3.4, I will propose an analysis of anti-agreement based on Grohmann's anti-locality hypothesis. Finally, in section 3.5, I will consider how anti-agreement enables extraction.

## 3.1. The Distribution of Anti-Agreement

Anti-agreement is the phenomenon whereby there is a special morphosyntactic form of subject/verb agreement if a subject has been locally extracted. This means it only occurs when a subject that is part of a complex chain occupies the local left edge; and only, we shall later see, when its occurrence would make the chain licit. The example in (42a) illustrates that the canonical subject/verb agreement cannot occur if there is local extraction. (42b) illustrates the special subject/verb agreement morphology known as anti-agreement that occurs when there is local extraction. The contrast between (42a and b) demonstrates that ex-situ questioning of a wh-subject requires anti-agreement:

- (42) a. \* **iyondi** yo **a**-alangira Marya who that<sub>focus</sub> agr-saw Mary
  - b. **iyondi** yo **u-**alangira Marya who that<sub>focus</sub> anti.agr-saw Mary Who saw Mary?

<sup>&</sup>lt;sup>18</sup> For an interesting perspective on verb second which contrasts with the views of Anderson see Zwart (2005).

The examples in (43a and b) illustrate the canonical subject/verb agreement that occurs when a subject has not undergone extraction. The examples in (44a and b) illustrate that antiagreement is ungrammatical under these same circumstances:

- (43) a. Kambale <u>a</u>-alangira Marya<----- CANONICAL AGREEMENT Kambale agr-saw Mary Kambale saw Mary.
  - b. *pro* <u>a</u>-agenda *agr-left* S/he left.
- (44) a. \* Kambale **u-**alangira Marya <----- ANTI-AGREEMENT *Kambale anti.agr-saw Mary* 
  - b. \* pro **u**-agenda anti.agr-left

In addition to wh-extraction, anti-agreement also occurs when a subject is locally relativized (45a) or clefted (45b):

- (45) a. omukali oyo **u**-anzire Kambale woman that anti.agr-likes Kambale the/a woman that likes Kambale
  - b. si-ha-li mundo oyo **u**-kagenda *neg.there.be person that anti.agr-leaves*There is nobody that is leaving./ Nobody is leaving.

We find the following generalization about anti-agreement: when the subject is extracted, and thus does not canonically agree with the verb, it can be non-referential/non-specific. For example, the subject head of a relative clause can be an NPI licensed by negation in the relative clause itself (= (i) in footnote 8 of Progovac (1993)):

(46) Yohani a-anzire mulimi **u**-ta-nyua *John agr-likes farmer anti.agr-neg-drink*John likes any farmer who does not drink.

In addition, an indefinite, non-specific subject is possible if it is focused, and therefore, antiagreeing (recall the ungrammatical, unfocused (9)):

(47) abakali bo ba-kahuka ebikene women that focus anti.agr-cook yams lit. women that cook yams Women cook yams.

When anti-agreement occurs, a subject can exceptionally be non-referential/non-specific. These facts are not surprising if the canonically agreeing subject position involves a dislocation and anti-agreeing subjects do not.

# 3.2. The Properties of Wh-Questions and Focus Constructions

Anti-agreement involves wh-questions, <sup>19</sup> focus (and relative clause constructions). Therefore, in order to investigate the syntax of anti-agreement, it is first necessary to establish the basic facts about these constructions in Kinande. In this section, I will establish that these constructions involve movement, and, therefore, anti-agreement is associated with movement. Then I will establish that wh-questions and focus constructions are not clefts despite superficial appearances.

## 3.2.1. Wh-Questions and Focus Constructions Involve Movement

Ex-situ constructions that are related to gaps have two important properties indicating that movement is involved: (a) the relation between the wh-expression and the gap is sensitive to intervening islands; and (b) binding facts indicate that ex-situ expressions reconstruct.

Concerning sensitivity to islands, it is not possible to extract out of (a) a wh-island, (b) a relative clause, or (c) an adjunct clause:

- (48) a. \* ekihi<sub>j</sub> kyo<sub>j</sub> Constantine a-abula [iyondi<sub>k</sub> nga yo<sub>k</sub> e<sub>k</sub> u-agula e<sub>j</sub>] what that<sub>focus</sub> Constantine agr-wondered who if that<sub>focus</sub> anti.agr-bought \* What did Constantine wonder who bought?
  - b. \* ebihi<sub>j</sub> byo<sub>j</sub> Mary'a-anzire [NPomukali<sub>q</sub>[ oyo<sub>q</sub> [IP e<sub>q</sub> u-ahuka e<sub>j</sub>]]] what that focus Mary agr-likes woman that anti.agr-cooked \* What did Mary like the woman that cooked?
  - c. \* ebaruha yahi<sub>j</sub> yo<sub>j</sub> w-asiga [isi-wu-li w-asoma e<sub>j</sub> ] letter which that<sub>focus</sub> you-left neg-you-be you-read \* Which article did you leave before you read?

Additional evidence for movement in wh-constructions, as discussed extensively in Aoun and Benmamoun (1998), can be adduced on the basis of reconstruction effects. Reconstructed readings are available for wh- and focused expressions that are locally extracted:<sup>20</sup>

(ii) omukali *a*-afula esyongimba sy' a-ati woman class1agr-washed clothes Linker class1agr-how How did the woman wash the clothes?

<sup>&</sup>lt;sup>19</sup> In this work, for the most part, I set aside the syntax of adjuncts in wh-constructions. I will however note here that one non-referential adjunct in Kinande, the equivalent of *how*, is essentially only an in-situ expression. It always displays agreement with the subject of the sentence which most locally contains it regardless of its scope. The following example illustrates this phenomenon:

<sup>(</sup>i) abakali *ba*-afula esyongimba syo *ba*-ti? women class2agr-washed clothes Linker class2agr-how How did the women wash the clothes?

<sup>&</sup>lt;sup>20</sup> Ex-situ focused expressions and wh-expressions have identical properties as far as I can determine.

- (49) a. ekitabu kiwe<sub>j</sub> ky' obuli mukolo<sub>j</sub> a-kasoma kangikangi.

  book his that<sub>focus</sub> each student agr-reads frequently

  (It is) His<sub>i</sub> book that every student<sub>i</sub> reads frequently. (bound reading possible)
  - b. omo-bitabu biwe ekyahi ky' obuli mukolo a-asoma *LOC.books his which that*<sub>focus</sub> every student agr-read Which of his<sub>i</sub> books did every student<sub>i</sub> read? (bound reading possible)

The above facts indicate that the ex-situ constructions under consideration must be analyzed as involving movement.

## 3.2.2. Wh-Questions and Focus are not Clefts

In most anti-agreement languages, including Kinande, wh-questions (and focus constructions) look very much like clefts. Therefore, is anti-agreement linked to the syntax of clefts in particular? If not, why do these displacement constructions look so much like clefts and is this observation related to the syntax of anti-agreement?

As pointed out by an anonymous reviewer, one can establish that anti-agreement is a phenomenon which is independent of specific constructions such as clefting by observing that there are anti-agreement languages where clefting is clearly not involved. Examples of such languages would be Hausa (Tuller 1985, cited in Haïk 1990) and possibly also Kikuyu (Clements 1984, cited in Haïk 1990). Complementizers, or complementizer-like expressions are not involved in anti-agreement contexts and wh-questions in general in those languages.

In wh-constructions in Kinande, an ex-situ wh-expression is immediately followed by a word that native speakers translate as *that*, which certainly gives it the flavor of a cleft. Focus constructions have this same property. However, constructions that are unequivocally clefts in Kinande have certain distinct characteristics. The following is unambiguously a cleft construction. It is introduced by the copula *ni*, and the wh-expression, which is immediately post copular, is followed by a word which is also translated by native speakers as *that*:

(50) **ni**-ki **ekyo** Kambale a-agula **be**-what **that** Kambale agr-bought What is it that Kambale bought?

The form of the word glossed *that* in the cleft construction differs from the word glossed *that* in the wh- and focus constructions in that it starts with an initial vowel, an augment. The augment is lacking in the ex-situ construction. The augmented word used in a cleft looks like a demonstrative pronoun. It is exactly the same word used to introduce a relative clause (cf. (50) and (51)):

(51) ekitabu **ekyo** Kambale a-agula book that Kambale agr-bought the book that Kambale bought

These facts demonstrate that there are morphosyntactic differences between the ex-situ constructions and clefts. There is also a very decisive syntactic difference: relative clauses in Kinande are absolute islands for any kind of ex-situ construction, even ones with resumptive

pronouns, a configuration that will be discussed shortly. Clefts borrow their syntax directly from relative clauses. If ex-situ constructions were some type of cleft, wh-islands should be opaque since, if they really were clefts, they would be based on relative clauses and therefore should prohibit extraction. However, it is very easy for ex-situ resumptive constructions to cross a whisland as indicated below in (52). In contrast, it is impossible to cross a relative clause even with resumption as illustrated below in (53). Likewise, it is impossible to escape out of an obvious cleft construction even with resumption as illustrated in (54):

- (52) ekihi<sub>j</sub> kyo Yosefu a-kabula [iyondi<sub>k</sub> nga y' u-ka-**ki-**gula ] what that<sub>focus</sub> Joseph agr-wonders who if that<sub>focus</sub> anti.agr-tense.cl.buy \*?What does Joseph wonder who is buying it?
- (53) \* ekihi kyo u-anasangene [RELC omukali oyo u-ahandika-**kyo**] what that focus you-met woman that anti.agr-wrote-cl \*?What did you meet the woman that wrote it?
- \* ekihi kyo u-anasi nga [CLEFT ni-ndi oyo u-a-**ki**-gula ] what that focus you-know if be-who that anti.agr-tense-cl-bought \*What did you know who it is that bought it?

Clefts and ex-situ wh/focus constructions in Kinande involve unlike structures based on the difference in their sensitivity to islands.

#### 3.3. The Focus Marker

With the above in mind, let us reconsider the focus marker. Two logically possible structural analyses for the focus marker in these constructions come to mind: (i) either the wh-word is base-generated in the left periphery and the focus marker moves out of the argument position; or (ii) the wh-word moves and the focus marker is base-generated in the left edge.

The first option can be rejected out of hand. If the wh-expression/focused expression does not start out in argument position, then there is no account for the fact that displaced wh-words and focused expressions reconstruct. The second option is that the focus marker is base-generated in the left edge and the wh-expression moves. This option is illustrated in (55), where "CP" is an abbreviation for some position in the articulated left edge. This structure is consistent with the empirical data, especially the data involving subjects and the articulated left edge.

(55) 
$$[c_{P} \quad wh_{j} \quad [c_{r} \quad \mathbf{kyo} \left[ {}_{IP} \quad [\nu P \dots e_{j} \quad \ldots \right]]]$$

The issue arises of where exactly the wh-word and focus marker are located in the articulated left periphery. Suppose that the base-generated focus marker were an XP in the spec of a focus phrase. Under that condition, when a focused expression occupies the left edge, we would necessarily be forced to assume some kind of recursion of focus phrases. With two focus phrases, there would be a specifier position that the focused expression can target, in addition to the specifier position the focus marker putatively occupies. Such a configuration would be fundamentally ungrammatical based on what we know about (Relativized) Minimality, whereby like phrases intercept other like phrases. Given Minimality, we would expect a focus marker in

the spec of a focus phrase to intercept either a wh-expression or a non-wh focused expression which targets a structurally higher position in the left periphery. Therefore, the focus marker cannot be an XP.

The above considerations suggest the focus marker is a head. This accords with our earlier observation that the distribution of the focus marker is reminiscent of the complementary distribution of complementizers and V2 (both heads) in many Germanic languages. The natural assumption is that the focus marker is located in the head of the focus phrase. This is based on the interpretive contexts in which the focus marker occurs and assumes a system like Rizzi's articulated left edge. In his system, peripheral interpretations are related to the label of the relevant peripheral projection. In this light, any focused expression, including a wh-expression, can be reasonably assumed to occur in the specifier of the focus phrase with the focus particle in the head. This configuration captures not only the focus interpretation, but also the fact that non-interrogative focused and interrogative expressions do not co-occur in the same clause in Kinande. Finally, reconstruction is easily accommodated by this proposed structure:

# 3.3.1. The Focus Marker as Scope Marker Rather Than Complementizer

Although it is a head, the focus marker is not a complementizer. Instead, I will suggest it is a scope marker, similar to the Japanese particle ka, which marks the scope of an interrogative expression in that language. The Japanese scope particle can occur in every clause mediating between, and including, the thematic position of a wh-expression and the scopal position in which it is interpreted. In Kinande, the focus marker displays this same behavior (in what follows, I bold-face the focus marker for perspicuity):

(57) ekihi **kyo** Kambale a-asi nga **kyo** Yosefu a-kalengekanaya nga **kyo** what **that** Kambale agr-know compl **that** Joseph agr-thinks compl **that** Mary' a-kahuka

Mary agr.cooks

What did Kambale know that Joseph thinks that Mary is cooking (for dinner)?

Moreover, if a focus marker occurs in the most embedded clause, then one must occur in every clause between the site of extraction and the site of phonological location of the whword:<sup>21,22</sup>

If this were the correct analysis, it would not be possible to account for the fact that there can be multiple occurrences of the focus marker related to a single wh/focused expression.

<sup>&</sup>lt;sup>21</sup> This last set of properties concerning the distribution of the focus marker militates against a third logical possibility for wh-constructions, namely, one similar to a Kaynean approach to relative clauses. Suppose the focus marker and wh-word start off as one unit, with the wh-word moving slightly higher in the left edge:

- (58) a. ekihi \*(kyo) Kambale a-asi nga kyo Yosefu a-kalengekanaya nga kyo what that Kambale agr-knows compl that Joseph agr-thinks compl that Mary' a-kahuka

  Mary agr-cooks

  What did Kambale know that Joseph thinks that Mary is cooking (for dinner)?
  - b. ekihi **kyo** Kambale a-asi nga \*(**kyo**) Yosefu a-kalengekanaya what **that** Kambale agr.knows compl **that** Joseph agr-thinks nga **kyo** Mary' a-kahuka compl that Mary agr.cooks
    What did Kambale know that Joseph thinks that Mary is cooking (for dinner)?'
  - c. \* ekihi Kambale a-asi nga Yosefu a-kalengekanaya nga (**kyo**) Mary' a-kahuka what Kambale agr-knows compl Joseph agr.thinks compl (**that**) Mary agr-cooks What did Kambale know that Joseph thinks that Mary is cooking (for dinner)?

The above distribution distinguishes the focus marker from a complementizer in a language like English where (a) complementizers and interrogative expressions are explicitly forbidden from co-occurring due to some version of the doubly filled Comp filter; (b) a complementizer could occur in an embedded clause with the wh-expression occurring in a more superordinate clause; and (c) a complementizer does not need to occur in any and/or every intermediate Comp along the path of an extraction:

- (59) a. \* I know who **that** left.
  - b. What do you think **that** Bill read?
  - c. What do you think (that) Mary said (that) Bill read?

## 3.3.2. Properties of the Scope/Focus Marker

The focus marker is distinct from a Japanese-type scope marker. In Japanese, the wh-word remains in-situ with its scope being marked by the scope marker. In Kinande, in contrast, both the wh-word and the scope marker occur ex-situ:

(60) \* **kyo** Kambale a-alangira **ki**that<sub>focus</sub> Kambale agr-saw what

\* What did Kambale see?

<sup>&</sup>lt;sup>22</sup> An anonymous reviewer points out that the syntax of the focus marker deserves a fuller investigation, in particular, s/he notes it would be important to explore its syntax in island contexts. This would help establish that there is not, under some circumstances, movement of the focus marker, given its rather pronominal character suggesting the focus marker itself might behave like a resumptive pronoun. I wholeheartedly concur with the suggestion of the reviewer. However, an investigation of the syntax of the focus marker of such encompassing scope would constitute a paper in itself, which I must necessarily leave for future research. An interesting and important paper addressing similar issues in Irish is McCloskey (2002).

In addition, the focus marker is not interpreted as being related to a wh-question without the co-occurrence of a wh-word:<sup>23</sup>

(61) %kyo Kambale a-alangira

that<sub>focus</sub> Kambale agr-saw

%what did Kambale see
ok: THAT (is what) Kambale saw.

Likewise, ex-situ wh-expressions require the co-occurrence of an agreeing focus marker, as noted earlier (cf. (28)):

- (62) a. \* ekihi Kambale a-alangira.

  what Kambale agr-saw

  What did Kambale see?
  - b. \* **iyondi** Kambale a-alangira. who Kambale agr-saw Who did Kambale see?

The example in (60) helps establish the fact that the focus marker is associated with the EPP property. The example in (61) indicates that a focus marker on its own does not have an interrogative interpretation, although it must be interpreted as focused. It is the wh-word that contributes to the interrogative interpretation. Ex-situ wh-expressions in Kinande are then discontinuous, with the wh-word itself behaving like a variable and the focus marker behaving like an operator. The examples in (62) suggest that the focus marker has some property to trigger movement, otherwise there can be no ex-situ wh-question/focus construction. Given that there is more than one wh-question strategy and given the minimalist idea that movement is not optional, it must be triggered by some imperfection in the grammar. The obvious analysis would be that movement satisfies last resort, and so must be to check some uninterpretable features, namely the uninterpretable Φ-features of the focus marker. The obvious analysis would be uninterpretable Φ-features of the focus marker.

<sup>&</sup>lt;sup>23</sup> Kinande has null operator constructions as discussed in Authier (1988). I assume that in (63), a null operator is being focused. A demonstrative pronoun can be focused with similar interpretive consequences:

<sup>(</sup>i) ekyo **kyo** Kambale a-alangira that **that** focus Kambale agr-saw
THAT (is what) Kambale saw.

<sup>&</sup>lt;sup>24</sup> Discontinuous expressions are not unusual in languages of the world. See for example Li (1992) for discussion of Mandarin discontinuous expressions.

<sup>&</sup>lt;sup>25</sup> Kinande has four strategies for wh-question formation, including an in-situ and a partial movement strategy. The in-situ strategy is amenable to an unselective binding analysis, which indicates that in-situ wh words behave like variables. The facts concerning the discontinuous nature of ex-situ wh-words demonstrate that, although ex-situ wh-words are slightly different morphologically from in-situ words, their fundamental nature as a variable remains.

<sup>&</sup>lt;sup>26</sup> This observation raises interesting questions about why ex-situ constructions involving resumptives, which behave as if they are base-generated, also require the focus marker. These questions will not be answered here, but one speculation might be that there is partial movement even in resumptive structures.

# 3.3.3. Uninterpretable Features, the EPP and the Syntax of the Focus Marker

In the previous sub-sections, we saw that the focus marker is a head with uninterpretable  $\Phi$ -features that is base-generated on the left edge. Moreover, it is interpretably related to focus. Therefore, according to the assumptions of Rizzi's cartography of the left edge, the focus marker must occur in the head of the focus phrase. However, it is a priori possible that the focus marker does not originate in the head of focus, but instead arrives there by head movement.

The focus marker has two properties that suggest a syntactic relation of the focus marker to CL as well as to focus. One is the fact that there is a complementary distribution between a dislocated subject and an ex-situ focused NP. The other is the fact that the focus marker looks very much like a pronoun.

I have argued that the (lower) topic phrase is headed by CL. Suppose the head of that phrase (CL) moves to the head of focus phrase, presumably adjoining to a focus feature that heads the focus projection. Specifically, I suggest the following:

$$[FP \quad [FCL --+F][topicP \quad CL \quad [.....]]]]$$

We then have a reason why both CL and the focus marker require agreement and why they both have an EPP property (an XP must occur in their spec): the same morpheme is involved in both cases, so obviously only one set of morphosyntactic properties is evident. The morpheme can occur either as a topic marker or via movement (or AGREE) in the head of focus phrase.

I suggest this is regulated by the following mechanism. I follow Zubizarreta (2001) in her proposal that the force of a sentence must be ph(onologically)-lexicalized. Essentially, she defines ph-lexicalization as follows:

(64) *Ph-lexicalization*: A feature in the head of a functional projection is ph-lexicalized iff the head or the Spec of that projection is associated with appropriate ph-features.

Zubizarreta argues that "not only a morpheme, but also a feature may fulfill the function of phlexicalization." The movement of CL to F would result in the ph-lexicalization of the force of the type of sentences under consideration here.

As for the pronominal character of the focus marker, I have suggested that the focus marker originates as CL in the head of the topic phrase. In focus constructions, it is ph-lexicalized together with the focus feature. The syntactic source of the focus marker provides a reason for its pronominal nature: CL is related to topicality (the D-linked property) through its origin as the head of the topic phrase. A pronominal element is a prototypical expression of such topicality. This would also help explain why ex-situ wh-questions and focus constructions look so much like clefts although they do not appear to have the syntax of clefts: the head of the construction is related to topicality by virtue of its origin as the head of the topic phrase. Therefore, it is related to what is presupposed in the discourse. Through movement of CL to the head of the focus phrase, what is presupposed is also related to what is focused. This accords with many descriptions of clefts (especially so called "it-clefts") in the literature, where a focused constituent is related to an open presupposed proposition. On the literature, where a focused constituent is related to an open presupposed proposition.

<sup>&</sup>lt;sup>27</sup> In the left edge agreement languages for which I found the relevant information (Tagalog, Chamorro, Palauan, Wampanoag, Kinande), there is an asymmetry in the extraction of arguments versus adjuncts. Adjunct wh-questions

uninterpretable  $\Phi$ -features, the focus marker agrees with the focused expression by virtue of the fact that uninterpretable features must be eliminated. We are now in a position to consider why and how anti-agreement occurs.

### 3.4. *Anti-Agreement and Anti-Locality*

Given the canonically dislocated nature of subjects in Kinande and my assumptions about the articulated left edge, a subject wh-question should have the following initial structure:

(65) 
$$[FP | [topicP | iyondi_j [ yo (=CL) [IP | pro_j [vP | a-alangira Marya]]]] who that agr-saw Mary$$

MOVE would result in the following configuration:

However, this is ungrammatical as indicated in (42a) and repeated here:

The ungrammaticality of the above example can be accounted for by Grohmann's (2000, 2003) Anti-Locality Hypothesis, which says essentially that movement cannot be overly local:

(68) Anti-Locality Hypothesis

Movement within a Prolific Domain is ruled out.

The following would not be possible:<sup>29</sup>

(69) 
$$* [_{\Omega} NP_{j} [_{\Omega} NP_{j} [_{IP} pro_{j} [\nu P...]]]$$

Instead, movement must involve at least two domains. **Domain** is as defined in Grohmann (2000, 2003):

(70)

Θ-Domain	VP/vP	part of derivation involving
		thematic relations

do not look like clefts. In Kinande, the adjuncts that cannot be involved in inversion constructions, in other words, ones that cannot express agreement with CL, form wh-questions without a focus marker.

<sup>&</sup>lt;sup>28</sup> I assume that the fact that the focus marker looks morphologically different from CL when it remains in the head of CL phrase reflects the presence versus absence of the focus feature.

<sup>&</sup>lt;sup>29</sup> Following Grohmann, I will use  $\Omega$  here as an abbreviation for any projection of the articulated left edge.

Φ-Domain	IP (and its articulation)	part of derivation involving
		agreement processes
Ω-Domain	CP (and its articulation)	part of derivation involved
		with discourse information

The above constraint captures an anti-locality requirement that appears to govern movement: the occurrences of an XP<sup>30</sup> cannot be too close together. Anti-locality in Grohmann's framework addresses movement.<sup>31</sup> Anti-locality as applied by Grohmann would prohibit, for example, the following structure, where John has moved from one theta position to another:

(71) \* [
$$_{vP}$$
 John [ $_{VP}$  admired  $\frac{\text{John}}{\text{John}}$ ]]

If such movement were possible, Grohmann points out we should have sentences such as: *John admired* meaning *John admired himself*. The absence of such sentences is straightforwardly accounted for in Grohmann's anti-locality framework.

The Anti-Locality Hypothesis suggests two possibilities for well-formed subject constituent questions in Kinande given the canonically dislocated nature of subjects in the language. One possibility is for subjects to exceptionally start out in a domain other than the  $\Omega$ -Domain so that movement would locally traverse at least two domains. The options would be to start out in  $\nu$ P=  $\Theta$ -domain or IP= $\Phi$ -domain:

(72) a. 
$$[FP \ [F' \ +F \ [topicP \ [topicP' \ CL \ [IP \ WH_j \ [vP...]]]]]]]$$
  
b.  $[FP \ [F' \ +F \ [topicP \ [topicP' \ CL \ [IP \ [vP \ WH_i \ v...]]]]]]]$ 

Given a configuration as in (72), local extraction of the subject should be possible since movement would span more than one domain, namely, vP, IP and the  $\Omega$ -Domain:

(73) 
$$[_{FP} WH_j \quad [_{F'} + F_j \quad [_{topicP} \quad [_{topicP'} CL_j \quad [_{IP} WH_j \quad [_{vP} WH_j \dots]]]]]]]$$

In the Binding Theory, the relevant domains for computing restrictions on Binding are called *Complete Functional Complexes*, and include IP and DP. Note the GB Binding domains for construal are slightly different from those relevant to movement as described in Grohmann's minimalist anti-locality framework. In Binding Theory, the interpetation of pronouns is governed by anti-locality:

<sup>&</sup>lt;sup>30</sup> See Grohmann (2003) for discussion as to why the Anti-Locality Hypothesis is relevant to XP movement, but not X movement.

<sup>&</sup>lt;sup>31</sup> The concept of anti-locality is already familiar from Government and Binding Theory, but mainly only where construal rules are concerned, in which case anti-locality is relevant to the relation between a pronoun and its potential antecedent, which cannot be structurally too closely together. There are attempts to unify construal and movement in Government and Binding Theory such as the Generalized Binding theory of Aoun (1981, 1985), where anti-locality is argued to be relevant to movement in so far as properties of movement can be reduced to the principles governing construal. An interesting recent attempt to unify movement and construal can be found in Kayne (2005), where he argues that pronouns and their antecedents start out in a very local configuration and enter into an antecedent–dependent relation via movement.

This first possibility is exactly the configuration that is created via anti-agreement. Recall that when anti-agreement occurs, the subject behaves as if it is not dislocated. This conclusion is based, among other things, on the possibility of a negative polarity item or wh-word occurring in subject position. When extraction does not occur, a subject occurs in a dislocated position, as part of a resumptive construction. In this light, anti-agreement can perhaps be best understood as "anti-resumption" since with anti-agreement a derivation is rescued just in case resumption does not occur.

A second possibility for a well-formed constituent question, namely one that respects antilocality, is for movement to be long-distance so that more than one  $\Omega$ -Domain is involved (i.e., several cycles are involved and therefore movement would not be overly local). Examples such as (74) illustrate that long-distance movement is indeed grammatical:

(74) [FP iyondi FP iyondi

Notice that long-distance movement of the subject does not require anti-agreement to occur.<sup>32</sup>

The above example demonstrates that a subject that is base-generated on the left edge can move directly to a superordinate  $\Omega$ -Domain without violating anti-locality. According to the logic of the analysis I am developing, the grammaticality of moving a subject long-distance confirms that domains must be taken into account successive cyclically. That is, since long-distance movement of a subject is grammatical, this means movement from one  $\Omega$ -Domain to another does not count as an anti-locality violation. Therefore, this indicates that anti-locality applies to each cycle of a domain separately. This is essentially consistent with Grohmann (2000, 2003), who assumes a dynamic view of Spell-Out.

The proposal that anti-agreement languages have canonically dislocated subjects and some condition akin to Grohmann's Anti-Locality Hypothesis is responsible for anti-agreement captures the intuition of some of the earliest approaches to anti-agreement. These approaches suggested that anti-agreement arises due to a violation of the Binding Theory. Specifically, they suggested that when subject extraction takes place, a pronoun occurs in subject position (or the agreement morpheme itself has pronominal properties) and it is illicitly bound by the extracted subject unless anti-agreement is expressed (cf. Ouhalla 1993 and Schneider-Zioga 1988). Since the status of the Binding Theory in current linguistic theory is uncertain, the Anti-Locality Hypothesis, which captures anti-locality effects without making reference to the Binding Theory, is a welcome development. Moreover, with Grohmann's approach, a decision about strong

 $<sup>^{32}</sup>$  There is also the possibility in Kinande of successive cyclic movement of a subject where, by last resort, antiagreement occurs and therefore the subject does not start out in the Ω-Domain but rather in some IP internal position. With successive cyclic movement, the focus marker occurs in each clause from the site of extraction all the way up to the site of pronunciation of the wh-word. Recall that I have argued that the focus marker consists of CL plus the focus feature. Therefore, movement directly from one  $\Omega$ -Domain to another, as in (74) above, involves a different array, since there is no subordinate focus marker, than when anti-agreement is involved. This means that movement is not optionally either successive cyclic or long-distance.

<sup>&</sup>lt;sup>33</sup> My analysis of anti-agreement also shares something with the insight of Phillips (1996) that the locus of anti-agreement lies in verb raising: he suggests that anti-agreement occurs because, when extraction occurs, the verb fails to raise to the normal head of AgrS. Under the analysis developed here, the subject does indeed have a different structural relation to the verb when anti-agreement occurs, but not due to a failure of verb raising per se, but rather due to a different structural position of the subject itself. Moreover, under the analysis developed here, it is indeed

occurrences can be made locally and thus does not require inspection of an entire chain to make the determination of ambiguity. In contrast, proposals such as those of Boeckx (2001, 2003) and Richards (1997), which allow a determination of ambiguity of chains by looking back over the entire derivation, seem to be opening the door to a residue of S-structure.

Finally, as den Dikken (p.c.) points out, it is worth considering whether there is an alternative account for the anti-agreement facts based on semantic considerations. That is, could the extremely local movement of the subject within the  $\Omega$ -domain be ungrammatical simply because the wh-phrase in a wh-question must be a focus instead of a discourse topic? If that is the correct account, how can we explain that long distance movement without anti-agreement is grammatical, as in (74), where movement appears to be from the topic position in the embedded clause to the focus position in the superordinate clause? If we adhere to the anti-locality account, this is simply an example of the resumptive pronoun that is canonically associated with the subject position, which can surface whenever anti-locality is not violated. Under an anti-locality approach, we get this result for free. Under the semantic prohibition account of very local movement, we can still come to the conclusion that resumptive pronouns are fine in Kinande in the right contexts, but it is more ad hoc. Therefore, anti-locality has broader coverage than a semantic approach.

With Grohmann, I have suggested that anti-locality must be respected in order for movement to be licit. For a language like Kinande where subjects are canonically basegenerated, this means some last resort measure must be undertaken so that subjects do not start off in the canonical position. I have proposed that this is accomplished for local extraction via anti-agreement, which is perhaps better understood as "anti-resumption." In the following section, I will consider how anti-agreement has this effect.

#### 3.5. How Anti-Agreement Enables Extraction

I have argued that subjects in Kinande must be canonically dislocated based in large part on the distribution of referential and non-referential expressions in subject position whenever canonical agreement occurs. Another way of stating the restrictions we observed is to say that dislocated subjects are obligatorily D-linked. This is reminiscent of the view of Diesing (1992) that specific (essentially, D-linked) expressions occur outside of certain syntactic domains such as VP but non-specific indefinite expressions occur inside VP. From Diesing's work, we know that the syntactic position of a nominal expression matters with respect to its interpretation. Recall that I have also argued that when the subject in Kinande occurs in a dislocated position on the left edge, it is resumed by a null pronoun in spec of TP. The literature on resumption, especially as discussed in Boeckx (2001, 2003) and the references cited therein, has noted a connection between D-linking and resumption. A number of researchers have suggested that resumption ensures a D-linked interpretation. In sum, researchers have noted two components that seem to lead to a D-linked interpretation: structural position of the D-linked expression and whether or not an expression is in a dependency involving resumption.

possible that the verb also occurs in different positions given a simple declarative sentence versus a wh-questions; however, the position of the verb is not directly relevant to the phenomenon of anti-agreement but is instead epiphenomenal with respect to it.

# 3.5.1. Environments Where D-Linked Interpretations are Exceptionally Not Obligatory

In this section, I will demonstrate that resumption per se does not ensure a D-linked interpretation; instead, Case and mood play an important role in mediating D-linked interpretations. We will see that the relevant facts ultimately lend support to Diesing's view that position is responsible for D-linking, and not resumption as such. Moreover, these insights will help us understand how anti-agreement enables extraction by ensuring that the left edge (related to Diesing's D-linked position) is not available for dislocated subjects.

The first circumstance where a D-linked interpretation is suspended involves a contrast between structurally/canonically Case-marked and inherently/non-canonically Case-marked resumptive pronouns. The second circumstance is when the resumptive pronoun is in a non-veridical environment such as clausemate of a modal, *if*, negation, etc.

The first circumstance, non-canonical Case of the resumptive pronoun, can be illustrated by data from almost any work that has concerned itself with the Clitic Left Dislocation (CLLD) of non-canonically Case-marked elements. The example in (75a) illustrates for CLLD in Modern Greek that the accusative *kathenan* (everyone.accusative), an expression that is not easily interpreted as D-linked, is not acceptable as an accusative CLLDed expression precisely because (as has been very well established) CLLD requires a D-linked interpretation. But this obligatory D-linking requirement holds only for accusative CLLDed expressions. Genitive CLLDed expressions are completely acceptable even if they cannot be easily D-linked, as is illustrated for *kathenos* (everyone.genitive) in (75b). Similar data can be replicated in many languages with such constructions.<sup>34</sup>

(75) a. \*?kathenan ton-ksero

everyone.acc him-know.1sg

Literally: everyone<sub>i</sub>, I know him<sub>i</sub>.

b. kathenos tou-piran \$1,000 everyone.gen him-took.3pl \$1,000 Literally: Everyone<sub>i</sub>, they took \$1,000 from him<sub>i</sub>

Therefore, there is nothing about the meaning of certain expressions as such that forbids them from co-occurring with a resumptive pronoun. Moreover, a resumptive pronoun does not directly impose a D-linked interpretation on the nominal expression that is in a dependency with it. Instead, D-linking depends on the Case of the resumed expression.

The second circumstance where a D-Linked interpretation is suspended involves contexts of non-veridicality, as illustrated by the following examples from Greek. In (76a), an accusative CLLDed indefinite expression is interpreted as non-specific due to the presence of the modal *tha*. The exceptionally non-D-linked interpretation of the accusative CLLDed expression in (76a) is verified by the acceptable continuation of the sentence as in (76b):

<sup>&</sup>lt;sup>34</sup> I collected all Greek data from native speaker consultants.

- (76) a. mia mov bluza tha **tin**-aghoraza one purple blouse would it-bought. Isg a purple blouse, I would have bought (it).
  - b. ala dhe vrika kamia sto numero mu. but not found. Isg any in. the size my but I didn't find any in my size.

That the irrealis modal *tha* is responsible for the non-D-linked interpretation can be confirmed by comparing (76a) to a similar sentence which lacks a modal, where *mia kokkini bluza* must be interpreted as D-linked:

(77) mia mov bluza **tin**-aghoraz.a one purple blouse it-bought.1sg a (specific) purple blouse, I bought it.

The data discussed above provide convincing evidence that D-linking is not tied exclusively to the presence of a resumptive pronoun.<sup>35</sup> Rather, the syntactic configuration within which a nominal expression and a resumptive pronoun are located itself plays a crucial role.

The suspension of the D-linking requirement under the aforementioned conditions can be captured in the following way. Consider first structural (accusative) Case. It appears that only accusative, but not oblique DPs, are interpreted as D-linked in a peripheral position. This would follow from the following assumptions. Assume that this peripheral position requires AGREE between it and an internal position when there is a D-linked interpretation. Some requirement of this sort must exist for dislocated expressions to be thematically interpreted. Since the examples under consideration involve resumption, the internal, putatively AGREEd with position must involve pro. Since pro requires Case, pro must be related to the  $\Phi$ -Domain.

In order to account for the asymmetric behavior between structural and inherent Case and D-linking, two possibilities seem plausible. One possibility is that the functional projection related to inherent Case (if it exists) is too deeply embedded for AGREE to be licit, but the functional projection related to a structural Case, such as nominative or accusative Case, is embedded shallowly enough for AGREE to be licit. Another possibility is to follow Boeckx (2001, 2003) in noting that agreement is not possible when inherent Case is involved. Alternately, suppose the resumptive pronoun is located within  $\nu$ P (as would be the situation if it were inherently Casemarked) as opposed to being located in the  $\Phi$ -Domain (as would be located within what

<sup>&</sup>lt;sup>35</sup> For Boeckx, the presence of resumptive pronouns implies a special structural representation: the pronoun and dislocated expression start off as a Big DP, with the resumptive pronoun functioning as the determiner (Big D) and the dislocated expression (DP) as the complement of Big D: [D resumptive pronoun [DP] dislocated expression ]]. Thus, for him, the purported D-linking of resumption finds an explanation in the putative structural representation of resumed expressions. The discussion in the text indicates that D-linking does not seem to follow directly from the structural representation of D-linked expression.

<sup>&</sup>lt;sup>36</sup> This would mean we must assume contra Hornstein 1995 that dative does not involve a functional projection higher than AgrO. In addition, this would mean that inherently Case-marked expressions cannot be base-generated on the left edge, but can occur there only via movement.

<sup>&</sup>lt;sup>37</sup> Why this should be true is an intriguing mystery.

Diesing calls the nuclear scope of the sentence: vP/VP (the  $\Theta$ -Domain in Grohmann's terms) where it could not be obligatorily interpreted as D-linked.

Consider now the facts concerning the suspension of D-linking in non-veridical/irrealis environments. A similar structural explanation is available here given that the left edge position headed by CL is indeed central to D-linked interpretations. I have suggested this position is D-linked via AGREE between a dislocated expression on the left periphery and a pronoun in the appropriate position in the  $\Phi$ - or  $\Theta$ -Domain. Structural D-linking of a participant in a non-veridical event is semantically incongruous and therefore a D-linked "shifted" position is not licensed in this context for semantic reasons.<sup>38</sup> Given this, we can expect to find structurally Case-marked resumptive pronouns in non-veridical/irrealis environments where the antecedents of the resumptive pronouns are not obligatorily interpreted as being D-linked. The existence of such data was established in the previous discussion (cf. (76)).

#### 3.5.2. Case, Irrealis, and Wh-Extraction

The examples we have discussed in this section emphasize that the D-linked position is mediated by structural Case and realis mood. Although not usually recognized as a natural class, <sup>39</sup> these environments have also been noted as being relevant to wh-extraction. For instance, Boeckx (2001, 2003) and references cited therein have noted and attempted to account for the fact that non-structural Case-marking of nominal-expressions seems to enable their extraction. In the same vein, Boeckx (2001, 2003) and the work cited therein, as well as Richards (1997), and a large number of researchers before them, have also pointed out that the same holds true for lack of agreement. Given standard assumptions that Case and agreement are essentially opposite sides of the same coin, we can conclude that lack of structural Case and lack of agreement are referring to the same phenomenon. In addition, with respect to irrealis, in the anti-agreement literature, researchers (e.g. Haïk 1990 for certain African languages and Georgopoulos 1985, 1991 for Palauan) have noted a type of anti-agreement such that extraction in some languages requires irrealis morphology in the clause containing the site of extraction although the clause is not semantically irrealis.

How is it then that anti-agreement enables extraction? I will argue that it makes the AGREE process discussed above impossible by suppressing structural Case to *pro* and by preventing

<sup>&</sup>lt;sup>38</sup> This is not to say that there cannot be D-linked participants in non-veridical events, it is only to say that a clausal structure that required the participation of D-linked participants would seem to be wildly inappropriate for a non-veridical/irrealis event. Occurrence in a "shifted" position **requires** D-linked interpretation and thus should not be possible in non-veridical environments, or if it appeared possible, it would not have its usual semantic/pragmatic property of obligatory D-linking since in this case there is simply movement to a peripheral position instead of AGREE alone establishing the relation.

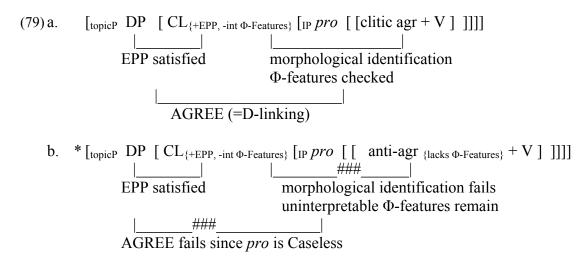
<sup>&</sup>lt;sup>39</sup> Schneider-Zioga 2002 is an exception.

<sup>&</sup>lt;sup>40</sup> The role that irrealis plays in enabling extraction suggests a reinterpretation of Ouhalla's (1993) "anti-anti-agreement" facts, where he notes that in a number of anti-agreement languages such as Berber, a negated clause does not require anti-agreement for subject extraction; instead, the canonical agreement morphology can exceptionally occur. This fits in with the above observation that irrealis (in this case in the guise of negation) prevents the occurrence of a topic on the left edge. That is, even though canonical agreement occurs in Berber, the subject is not associated with the left edge in the by now familiar way, just in case negation occurs. Under this insight, Ouhalla's negation facts could be accounted for in the same way as in languages such as Palauan that, in principle, require irrealis for extraction.

morphological identification of CL by a verb that hosts a subject clitic.<sup>41</sup> One of the classical views of the function of agreement is to assign Case. Anti-agreement is a repression of agreement, or at least a repression of the type of agreement that licenses *pro* and other nominal expressions. Recall that *a*-, the canonical subject/verb agreement morpheme, as one of its functions, licenses *pro*. If the morpheme *a*- is missing, *pro* cannot occur:

If there is no *pro* when anti-agreement occurs, then there can be no locally dislocated subject in the spec of the topic phrase headed by CL. This is because, by hypothesis, the dislocated position involves AGREE between the dislocated subject and the structurally Case-marked *pro* in subject position so the subject can be thematically interpreted. Let us consider in detail what this means given the syntax of the left edge in Kinande. More specifically, let us consider not only that this means there can be no *pro* due to lack of Case, but in addition, CL cannot be morphologically identified by the anti-agreement morpheme due to its paucity of agreement features.

Consider the examples below, where the first example, which is grammatical, illustrates the analysis developed in section 2.4. When canonical agreement is involved, it participates in morphologically identifying CL on the left edge. The second example, which is ungrammatical, illustrates anti-agreement (without extraction) and the fact that morphological identification of CL by the anti-agreeing verb fails.



In the ungrammatical (79b), the failure of morphological identification of CL by the antiagreeing verb cannot be overcome by the subject DP's interpretable  $\Phi$ -features morphologically

<sup>&</sup>lt;sup>41</sup> The fact that anti-agreement is not involved in Case assignment is morphologically even more obvious in the anti-agreement language of Chamorro, where Chung (1998) comments on the interesting observation made by Dukes (1992) that every instance of anti-agreement in Chamorro is homophonous with some type of non-finite inflection in the language. In early Principles and Parameters studies on the distribution of DPs versus CPs, it was observed that nominative Case is connected to finiteness, and more specifically was considered to be "assigned" by finite S. Lack of tense indicated a lack of Case availability. Kinande contrasts with Chamorro in that Kinande does not borrow its anti-agreement morphology from a non-finite paradigm in the language; instead, the anti-agreement morphology in Kinande is used exclusively when extraction occurs.

identifying CL. This is because the subject DP cannot occur in the spec of topic phrase as AGREE fails without *pro* in subject position.

If the subject DP is not able to occur in a dislocated position due to the impossibility of AGREE between the subject and pro, then the subject should be able to occur in the  $\Phi$ - or  $\Theta$ -domain, i.e., in spec of the appropriate I or V projection as a last resort. However, if this were to happen, then the subject would have no Case, since agreement is suppressed. Nonetheless, local subject extraction is possible only if anti-agreement occurs. It appears then that it does not matter that the subject has no Case if it is subsequently extracted. As Boeckx (2001, 2003) points out, the most radical proposals bearing on this point have suggested that wh-expressions in fact do not need to check Case (Chomsky 2000). Another possibility is that Case can be exceptionally assigned in Comp, at least in some languages. Anti-agreement is a fruitful last resort strategy to enable extraction, if the general idea is true that Case is not required in the usual way for ex-situ wh-words.

One piece of evidence in support of the general idea that Case need not be available in the usual way when extraction happens lies in the contrast between the following gapping constructions:

- (80) a. John likes Mary and Bill Ø Sue
  - b. John read a novel in the morning and Mary  $\emptyset$  a magazine in the afternoon
  - c. John gave a book to Mary and Bill Ø a CD to Sue
  - d. \* John gave Mary a book and Bill Ø Sue a CD

A transitive verb can be gapped as demonstrated in (80a). (80b) establishes that a gapped transitive verb can easily be followed by a prepositional phrase. A ditransitive verb is also grammatically gapped (80c). However, gapping is ungrammatical if the ditransitive verb is expressed in a double object constructions as indicated in (80d). In appears that the additional accusative Case is affected if the verb is gapped. It has been a long-standing question in the research on double object constructions how exactly Case is assigned to the accusative indirect object. One current proposal views the Cases of the direct and indirect object in double object constructions as being checked by abstract verbs such as vCAUSE and vAPPL respectively (see e.g., Maranz 1993, Collins 1997, McGinnis 1998). Whether or not abstract verbal/Case checking elements can be part of a derivation at all depends directly on properties of the co-occurring concrete verb. For instance, vCAUSE does not occur with intransitive verbs and abstract vAPPL cannot occur with stative verbs such as *seem* and *be*, or transitives such as *see* or *like*, or intransitives. Therefore, we can see that the grammaticality of abstract verbal elements is dependent in some way on the presence of a related, concrete verb.

The grammatical examples of a gapped transitive verb (80a,b) and the ditransitive, non-double object example (80c) tell us that the abstract verbal element vCAUSE can occur even if the related concrete verb is not phonologically overt. That is, vCAUSE does not need morphological licensing by an overt verb. The problem with (80d), the ungrammatical gapped double object construction, appears to be that vAPPL is not morphologically licensed when the concrete verb it is associated with is not phonologically overt. That is, vAPPL needs to be morphologically licensed. In fact, the need for overt morphological licensing appears to be true

for other types of exceptional Case-marking, such as in small clauses or with ECM constructions:

- (81) a. \*Mary considers John an idiot and Bill Ø Steve a fool
  - b. \*Mary considers John idiotic and Bill ∅ Steve foolish
  - c. \*John expected Laura to write the article and Mary Ø Ralph to submit the grant.

Now notice that ATB wh-extraction of an accusative indirect object in a gapped double object construction results in complete grammaticality:

- (82) a. Who did John give a book and Bill a CD?
  - b. Who<sub>i</sub> did John give  $e_i$  a book and Bill  $\emptyset$   $e_i$  a CD?

Likewise, ATB extraction rescues small clauses and ECM constructions:

- (83) a. Who<sub>i</sub> does Mary consider  $e_i$  an idiot and Bill  $\emptyset$   $e_i$  a fool?
  - b. Who<sub>i</sub> does Mary consider  $e_i$  idiotic and Bill  $\emptyset$   $e_i$  foolish?
  - c. Who<sub>i</sub> did Bill expect  $e_i$  to write an article and Mary  $\emptyset$   $e_i$  to submit a grant?

Specifically, it seems that what is ungrammatical in gapping constructions and what is rescued via Case-checking in Comp is "exceptional" Case: the additional accusative Case checked by vAPPL in double object constructions and the exceptional accusative Case in small clauses and ECM constructions. The rescuing effect of ATB extraction in such constructions can be explained if wh-expressions do not need Case or if exceptional Case can be assigned in Comp. Data from Kinande indicate that in-situ wh-expressions do indeed need Case, as an in-situ wh-subject cannot grammatically co-occur with anti-agreement (recall from (16) that multiple wh-questions with the subject remaining in-situ is otherwise grammatical in Kinande):

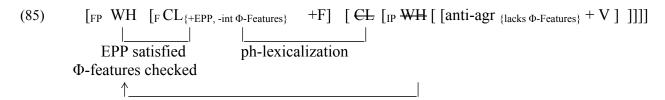
(84) \* ekihi kyo ndi **u**-kalangira what that<sub>focus</sub> who anti.agr-sees

The evidence I have introduced regarding Case assignment in ex-situ wh-questions is, in fact, equivocal about the exact mechanism at play. It does not allow us to decide if ex-situ wh-expressions do not need to be assigned Case or if there is some exceptional way Case can be assigned in Comp. The data only establish that there is something unusual about extraction and

Case: Case has a special status in wh-questions and does not need to be assigned in the usual way. 42

In sum, anti-agreement provides a mechanism for wh-question formation just in case the wh-expression starts out in a base-generated position in the left periphery. Recall that direct movement to spec of CP is unavailable in this situation because it violates an antilocality condition on well-formed chains. In order to achieve grammaticality, a last resort strategy that suppresses canonical subject/verb agreement is available. This strategy allows a wh-subject to start off in a thematic position by suppressing agreement/Case to subject position. This prevents the occurrence of *pro*, and thereby prevents AGREE with a dislocated position on the left edge. Since moved wh-expressions do not need to be Case-marked in the usual way, movement as last resort is available to rescue subject wh-questions in Kinande.

CL must also be morphologically identified, but cannot be by the anti-agreeing verb, which has impoverished  $\Phi$ -features. Moreover, following Zubizarreta (2001) as discussed in section 3.3.3, the focus feature requires ph-lexicalization which is accomplished by movement of CL to F. However, since the focus feature does not itself have interpretable  $\Phi$ -features, it is not able check CL's uninterpretable  $\Phi$ -features until a DP occurs in the spec of focus phrase and can thereby check them. This is illustrated below:



The above discussion has addressed how and why anti-agreement "rescues" derivations that would otherwise be ungrammatical. In this sense, anti-agreement is clearly a last resort operation. In addition, anti-agreement has a number of properties that typically indicate a last resort character. For instance, anti-agreement is found in very restricted contexts: only when subject extraction occurs. This limitation suggests that the use of anti-agreement is costly. Moreover, anti-agreement as a rescue operation requires more steps than a derivation that does not need anti-agreement since resumption must be "undone" in the sense of anti-resumption. Again, this suggests that anti-agreement comes at a cost. 44

Note that the anti-agreement phenomenon indicates that the grammar does not have a unique last resort operation. That is, we cannot say: "movement is primary, therefore, base-generation is the last resort rescue for A'-movement." This is because base-generation of subjects in a resumption structure is the usual strategy for building sentences in Kinande. The operation that rescues subject wh-question formation under these circumstances is movement via anti-agreement. However, we will see in section 4 as well as section 5.2 that resumption can also be a

<sup>&</sup>lt;sup>42</sup> However, it is difficult to imagine how exceptional Case-marking in Comp can be fleshed out from a theoretical perspective. This difficulty militates somewhat in favor of the idea that Case does not need to be assigned to whexpressions in ex-situ wh-constructions.

Hornstein 2001 provides an interesting overview and discussion of operations that have a last resort character.

<sup>&</sup>lt;sup>44</sup> Anti-agreement has much in common with the costly last resort operation of *do* support: the grammar attempts to utilize the lexical items at its disposal and resorts to other, more costly lexical resources only if forced to in order to satisfy last resort.

last resort strategy in Kinande, but only for expressions that are not initially base-generated in a resumptive structure. Specifically, we will see that last resort in chain formation is relativized to what is first resort in chain formation.

#### 4. FURTHER IMPLICATIONS FOR EXTRACTION

4.1. The Analysis of Canonically Agreeing Subjects as Dislocated Predicts Extraction Behavior

The analysis that subjects associated with canonical agreement are dislocated and hence resumed by a null pronoun predicts that they will behave on a par with other resumptive constructions in the language. As is common cross-linguistically, resumption in Kinande rescues island violations. Recall from (48) that an ex-situ wh-expression may not be related to a gap across an island. (86a) illustrates that an ex-situ wh-object may be related to a resumptive pronoun in object position in an adjunct clause, and (86b) illustrates this for a wh-island:

- (86) a. ekihi kyo Yosefu a-kabula [ iyondi nga y' u-ka-**ki-**gula ] what that focus Joseph agr-wonders who if that focus anti.agr-tense-cl-buy \*? What does Joseph wonder who is buying (it)?
  - b. ebaruha yahi yo w-asiga [isi-wu-li w-asoma-**yo**] *letter which that*<sub>focus</sub> *you-left neg-you-be you-read-cl*?? Which article did you leave before you read it?

Long-distance extraction of subjects associated with canonical agreement behaves exactly like **resumptive** wh-constructions involving objects and is also not constrained by islands. And so, on a par with resumed objects, subjects can easily be displaced out of (a) wh-islands, and (b) adjunct clauses:<sup>45</sup>

- (87) a. **iyondi**<sub>k</sub> yo Yosefu a-kabula [ekihi<sub>j</sub> nga ky' e<sub>k</sub> **a**-kalangira e<sub>j</sub> ] who that<sub>focus</sub> Joseph agr-wonder what if that<sub>focus</sub>' agr-sees

  Who does Joseph wonder what (he) sees (it)?
  - b. **omukali ndi** yo w-asiga [isy-**a**-lyabuga] woman who that<sub>focus</sub> you-leave neg-agr-spoke Which woman did you leave before she spoke?

The above data indicate that relative clauses in Kinande must be set aside as special; they constitute a type of island violation that cannot be "rescued" for either subject or object extraction. I will not provide an account of this inability to be rescued here but will also note that if a resumptive tonic pronoun occurs, instead of the clitic ones exemplified here, relative clauses are no longer islands in Kinande.

<sup>&</sup>lt;sup>45</sup> We saw in (53) that resumptive clitics in object position are not grammatical within a relative clause. Canonically agreeing subjects can also not be extracted out of relative clauses, despite the fact that they involve resumptive pronouns:

<sup>(</sup>i) \*iyondi<sub>q</sub> yo<sub>q</sub> Mary'a-anzira [NP ebialya<sub>j</sub>[ ebyo<sub>j</sub> [NP eq a-ahuka e<sub>j</sub> ]]] who that<sub>focus</sub> Mary'agr-liked food that agr-cooked \*Who did Mary like the food that cooked?

The like behavior of displaced canonically agreeing subjects and resumed objects is predicted by the analysis of canonically agreeing subjects as dislocations. They are both resumptive pronoun constructions and therefore, since resumption rescues island violations, behave alike in island contexts.

When we consider WCO configurations in the language, we have good additional evidence that canonically agreeing subject extraction and extraction of object wh-elements resumed by pronouns both involve pronominal elements instead of variables. WCO effects are mitigated in both cases, whereas extraction of objects that are related to gaps induce WCO, as the contrast between the grammatical (88) (putative resumptive pronouns) and ungrammatical (89) (gap, and hence variable) demonstrates. Recall that, descriptively speaking, WCO occurs just in case a pronoun is coindexed with a variable to its right that it does not c-command:

- (88) a. iyondi<sub>j</sub> yo mama wiwe<sub>j</sub> a-kalengekanaya ati **e**<sub>j</sub> a-anzire ebitabu (putative subject pro) who that<sub>focus</sub> mother his agr-thinks that agr.loves books
  - \*? Who; does his; mother think loves books? (in Kinande no WCO-subject question)
  - b. iyondi yo mama wiwe a-kalengekanaya ati omugalimu a-a-**mu**-nzire **e**<sub>j</sub> kutsibu *who that<sub>focus</sub> mother his agr-thinks that teacher agr-past-cl-loves best* ?Who does his mother think that the teacher loves him the best? (no WCO–resumed object)
- (89) \* iyondi yo mama wiwe a-kalengekanaya ati omugalimu a-anzire e<sub>j</sub> kutsibu who that<sub>focus</sub> mother his agr-thinks that teacher agr-loves best \*? Who<sub>j</sub> does his<sub>j</sub> mother think that the teacher loves the best? (WCO- moved object)

Finally, the anti-agreement analysis correctly predicts that extraction of anti-agreeing subjects out of islands will be just as ungrammatical as extraction of non-resumed objects. This is because anti-agreement involves a movement strategy. I include one example to illustrate:

(90) \* iyondi<sub>k</sub> yo Yosefu a-kabula [ ekihi<sub>j</sub> nga ky' e<sub>k</sub> u-kalangira e<sub>j</sub> ] who that<sub>focus</sub> Joseph agr-wonders what if that<sub>focus</sub>' anti.agr-sees \* Who does Yosefu wonder what (he) sees (it)?

#### 4.2. Object Extraction Revisited

In this section, I will reconsider object extraction from the point of view that the subject in Kinande is canonically dislocated. In this regard, the work of Aoun and Benmamoun (1998) is informative: they explore the interaction of base-generated and moved elements in Lebanese Arabic and note that base-generated dislocated XP's intercept movement, but not the reverse. Given the genius of Kinande, object extraction should not be possible since a base-generated NP would intervene between a wh-word and its trace. Specifically, their work correctly predicts it is ungrammatical for an object to be extracted across a (base-generated dislocated) subject:

(91) \* 
$$wh_k [NP_j [_{IP} pro_j [_{\nu P}... t_k]]]$$

Instead, when object extraction occurs, the subject is within IP. Examples (16) and (17), repeated below, demonstrate that a fully agreeing subject can exceptionally be either an in-situ whexpression or an NPI just in case an object has been extracted. This means that the subject is not dislocated just in case another expression has moved to the left edge:

- (92) a. ekihi kyo **ndi** a-alangira what that<sub>focus</sub> who agr-saw Who saw what?
  - b. ekihi kyo mukali sy-a-ngahuka? what that<sub>focus</sub> woman not-agr-cook
    What didn't any woman cook?

    (or: What did no woman cook?)

Elsewhere in the grammar, Kinande demonstrates this same sensitivity to the intervention of a base-generated dislocated expression. The following examples establish that a base-generated dislocated object intercepts displaced wh-subjects:

- (93) a. \* iyondi<sub>j</sub> yo<sub>j</sub> Marya a-alengekanaya [**ekitabu**, e<sub>j</sub> a-a-**ki-**soma] who that<sub>focus</sub> Mary agr-thought book, agr-past-**cl**-read
  - b.  $*iyondi_j yo_j$  Marya a-alengekanaya [**ekitabu**, e<sub>j</sub> y' u-a-**ki-**soma] who that<sub>focus</sub> Mary agr-thought book, that<sub>focus</sub>' anti-agr-past-cl-read

This intervention effect<sup>46</sup> cannot be attributed to some kind of prohibition on crossing because, as noted earlier, crossing is possible under certain circumstances: wh-subjects can easily be displaced across moved objects. I repeat the relevant example here:

(94) **iyondi**<sub>k</sub> yo Yosefu a-kabula [**ekihi**<sub>j</sub> nga ky' e<sub>k</sub> a-kalangira e<sub>j</sub> ] who that<sub>focus</sub> Joseph agr-wonders what if that<sub>focus</sub>' agr-sees
Who does Joseph wonder what (he) sees (it)?

In sum, we see that base-generated dislocated expressions intercept displacement across them. 47 Therefore, an object cannot be extracted across a subject unless the subject does not

<sup>&</sup>lt;sup>46</sup> Notice that the sentence in (93a) in Kinande distinguishes itself from the Lebanese Arabic data in that base-generated expressions in different domains in Lebanese Arabic can in fact grammatically intervene between other base-generated expressions (see Aoun and Benmamoun 1998). But this is clearly not the case in Kinande since we know that wh-subject questions which lack anti-agreement involve resumptive pronouns in Kinande, therefore (93a) involves the ungrammatical intervention of one base-generated dislocated expression between another base-generated dislocated expression and its resumptive pronoun. An explanation of this difference between the two languages is beyond the scope of the current paper, but one surely significant difference is that in Kinande, even locally dislocated objects always behave like they are base-generated in that position, whereas in Lebanese Arabic, only dislocated expressions related to resumptive pronouns across islands behave like they must obligatorily be base-generated. It is plausible then that the obligatory base-generated character of dislocated expressions in Kinande, in contrast to the essentially optional base-generated character of dislocated expressions in Lebanese Arabic, can ultimately account for this difference between the two languages.

occur in the canonical dislocated configuration. Moreover, movement does not interfere with a base-generated resumptive relation (cf. for example (94)). So we see that the left edge in Kinande behaves along the lines uncovered by Aoun and Benmamoun (1998) in their study of minimality in Lebanese Arabic and the interaction of movement and base-generation: the type of dependency a potential intervener is part of plays an important role in determining grammaticality for a dependency across the intervener.

Since base-generated expressions in A'-position intercept movement, object extraction can be enabled if subjects occur in the  $\Phi$ -domain, instead of in the usual dislocated position. As a last resort rescue strategy, we have already seen that subjects in Kinande can be generated sentence internally (the case of anti-agreement –that is, anti-resumption). It seems anti-resumption is also a last resort strategy for object extraction, but since the subject must remain in situ when object extraction occurs, instead of undergoing extraction, it is necessary for subject/verb agreement to remain as a way of assigning Case. In each situation of last resort, the last resort strategy accomplishes the minimum necessary for grammaticality. However, base-generated dislocated objects are not able to make use of an anti-resumption strategy to enable displacement of any kind across them. I will postpone a discussion of the unavailability of the anti-resumption strategy for base-generated object dislocation until section 5.

The previous discussion has established that object extraction is not grammatical in Kinande unless something special happens to the subject. This is interesting because on the surface it appeared that only subject extraction was remarkable in this language. This new data reveals that Kinande is much more similar to other known anti-agreement languages, where it is obvious that something special must happen for the extraction of any argument. The following examples from the Austronesian language of Chamorro are cited in Chung (1998). They illustrate clearly that anti-agreement is relevant to subject and object extraction since a unique anti-agreement marker, specialized for each grammatical function, occurs, depending on the type of argument extracted:

- (95) a. Ha-fa'gasi si Juan i kareta agr-wash the Juan the car Juan washed the car
  - b. Hayi f-**um-**agasi t i kareta who? WH[nominative].wash the car Who washed the car?
  - c. Hafa f-i**n-**agasése-**nña** si Henry *t* pära hagu *what? WH[acc].wash.Prog-agr(gen)* the Henry for you What is Henry washing for you?

In (95) we see that subject extraction in Chamorro requires the agreement infix *-um*-, which happens to be identical to the infinitive marker, whereas object extraction necessitates the infix – *in*-, in which case the subject must be expressed as genitive, instead of the usual structural Case. (See Chung 1982, 1998, Dukes 1992, and Schneider-Zioga 2002 for discussion of Chamorro, and other similar facts.)

<sup>&</sup>lt;sup>47</sup> When both a subject and object base-generated dislocation is displaced to the same prolific domain, they do not interfere with each other.

#### 5. RELATIVIZED LAST RESORT AND LOCAL ECONOMY

## 5.1. Anti-Resumption as Last Resort

Anti-resumption, the last resort strategy available when dislocation is first resort, might seem to violate local economy (see Collins 1997 for extensive discussion of local economy and relevant considerations). This is because it appears to require both look-ahead and back-tracking. It involves look-ahead because anti-resumption only becomes relevant once possible convergence of local extraction is determined. It involves look-back because built structure must be reexamined for its feature content and the derivation must be partially unbuilt. However, the look-ahead and look-back is decidedly local: the determination of the need for and execution of anti-resumption is limited to the same phase, specifically CP, where CP can be understood as an abbreviation for the articulated left edge of the type I assume here.

The two scenarios where I have argued anti-resumption is available are the following: (a) when subject extraction occurs, and (b) when object extraction occurs across a dislocated subject. I assume Chomsky's (1999) *Phase Impenetrability Condition (PIC)* according to which the following holds:

(96) PIC In a phase  $\alpha$  with head H, the domain of H is not accessible to operations outside  $\alpha$ , only H and its edge are accessible to such operations.

According to the PIC, the first phase that dominates the thematic subject position (on the edge of vP) is the CP phase but this is not the first phase that dominates the complement of the head of v\*P. The special font indicates an inaccessible domain.

(97) 
$$[CP [topicP NP_{subject} [CL [IP NP_{subject} [v*P NP_{subject} v*[v*P ... NP_{object} ...]]]]] ]$$

The claim that anti-resumption is limited by the PIC makes the empirical prediction that only subjects can undergo anti-resumption. This is because intervention effects arise when an expression of the relevant type occupies the left edge. Therefore, the CP phase is the only phase where anti-resumption can rescue the derivation locally. The PIC allows access to the thematic **subject** position on the CP phase, but nothing lower from a previous phase (that is, not anything below  $v^*$ ) such as the thematic **object** position since the previous phase has already been transferred to Spell-Out. This means that a base-generated dislocated **subject** will not specify a domain that is an absolute island to movement, because the PIC allows anti-resumption within the relevant phase. **However**, a base-generated dislocated **object** on the left edge will specify an absolute island for movement because anti-resumption of a dislocated object violates the PIC.

Therefore, it is correctly predicted that an example such as (93b), repeated here, is ungrammatical. Recall that Aoun and Benmamoun (1998) argue that base-generated dislocated expressions intercept movement:

This is ungrammatical because the dislocated **object** ekitabu occupies the left edge and therefore is part of the CP phase. But in order for it to undergo anti-resumption, it would have to have access to the thematic object position in the domain of the previous phase (v\*P), indicated by the cursive font:

Note that, as den Dikken points out (p.c.), weak pronouns in many languages actually leave the VP, at minimum shifting to the edge of the vP. This means that at least part of the dependency involving a resumptive object pronoun is accessible to the CP phase:

(100) 
$$[CP model{proobject} [v*P NP_{subject} v [vP ... proofject ...]]]$$

What we conclude from this possibility depends on our understanding of the copy theory of movement and how a tree is built. If there is a shifted pronoun, then there must be a copy of that pronoun in thematic position, within VP. I assume that anti-resuming a copy of a weak pronoun in a chain within the CP phase cannot affect any copies in a lower phase (vP). Moreover, I assume that if a copy of a pronoun remains in thematic position, then the dependency should behave like resumption is involved. Therefore, even if a weak pronominal object undergoes a shift to the edge of vP, the PIC will still prevent anti-resumption of any object, because what is relevant to anti-resumption is the copy in thematic position.

Additional support for the anti-resumption analysis is given by the fact that in inversion constructions, extraction across a dislocated non-thematic subject is completely ungrammatical. Consider locative inversion constructions, discussed in section 2.3.3. As noted in Baker (2003), an in-situ wh-questioning of a thematic subject is fully grammatical (=Baker's (27c) with simplified glosses):

(101) omo.mulongo mw-ahika ndi? *LOC.village agr-arrived who* Who arrived at the village?

However, overt extraction across the dislocated locative subject is completely ungrammatical:

The grammatical (101) demonstrates that there is no semantic constraint on questioning the logical subject in a locative inversion construction; therefore, the problem seems to be syntactic. Note furthermore that extraction across a locative subject is also ungrammatical in English as evident from the translation of (102). However, this does not automatically mean that anti-resumption regulated by the PIC is a misguided approach. In fact, Den Dikken & Naess (1993) have argued, for Germanic locative inversion in general, that the locative "subject" is positioned in the left periphery. Moreover, recent discussions on locative inversion in English (see, for example, the discussion in Miyagawa 2004) have argued that the locative "subject" is actually not within IP, but instead is in a peripheral position and this is what blocks wh-movement across

it. The syntax of the locative "subject" is further investigated for Germanic, and Bantu as well, in Den Dikken (2006).

The Kinande facts fall out if anti-resumption is limited by the PIC and therefore the inverted locative "subject" cannot undergo anti-resumption to its thematic position internal to VP.

The impossibility of ex-situ wh-questioning in inversion structures is also illustrated for subject object inversion. In this construction, it is impossible to extract the thematic subject across the inverted object. The example in (103a) re-introduces the subject object inversion construction originally discussed in section 2.3.3. The example in (103b) gives evidence of the ungrammaticality of extraction across the inversion:

- (103)a. ekitabu ky-agula mukali book agr-bought woman A woman bought a book.
  - b. \* iyondi<sub>j</sub> yo ekitabu ky-agula e<sub>j</sub>

    who that<sub>focus</sub> book agr-bought

    Literally: who (did) a book bought?

The account of the ungrammaticality of extraction here is the same as in (102): anti-resumption is limited by the PIC and therefore the inverted object, which occupies the dislocated structural subject position in the CP phase, cannot undergo anti-resumption to its thematic position internal to v\*P. Therefore, the base-generated inverted object intercepts wh-extraction across it.

An anti-resumption account is empirically superior to an account where derivations with and without resumption are both available but those with resumption are ruled out in the core cases of local subject extraction and local non-subject extraction. This is because an account where simply both derivations are available has nothing to say about extraction across dislocated expressions. In particular, it cannot predict that extraction is sensitive to the thematic content of the expression which potentially intercepts extraction. That is, there seems to be no reasonable motivation for the choice between derivations to be made sensitive to phases. Finally, an anti-resumption account is conceptually superior because it reveals the relativity of last resort to first resort. This issue will be discussed in the next section.

## 5.2. Resumption as Last Resort

I have argued that anti-resumption respects local economy. However, resumption, the last resort strategy when movement is concerned, unequivocally violates local economy. To see this consider the fact that in many languages an island constitutes a domain across which movement cannot occur. Instead, a resumptive pronoun must occupy the relevant thematic position when there is a dependency between a wh-expression in the left periphery and the thematic position just in case an island intervenes. It is in principle impossible to locally determine whether a derivation will need to be rescued in this way because the dependency between a wh-expression and the relevant thematic position is unbounded and an island can occur at any point along an unbounded dependency. To see why this is problematic, imagine a derivation that involves four embeddings. Consider the most deeply embedded clause and suppose that this is the origin of the

<sup>&</sup>lt;sup>48</sup> Boeckx 2001, 2003 discusses and attempts to explain the typological variation that can be found among languages with respect to island violations.

dependency that will need to be rescued by a resumptive pronoun. Whether we assume  $v^*P$  and CP as phases or just CP, movement will be licit on the first cycle. Movement will be licit on the second cycle as well. It will also be licit on the third cycle and so on, until an island is reached. It is only at that point that the derivation will need to be rescued by resumption. If we have assumed cyclic Spell-Out of some type, resumption will require that already Spelled-Out material is retrieved and altered, even if the rescue solely involves the costly substitution of a grammatical formative for a lexical item (cf. the view held for example by Hornstein (2001) among others of pronouns as grammatical formatives). One possibility is to follow Grohmann (2005) and dissociate transfer (of prolific domains/phases) to the interfaces from Spell-Out so that the sensorimotor system deals with only a complete PF-interpretation. As of yet, the relevant questions and answers bearing on this issue are murky and the structure of PF so unknown that it is not clear if this will be a fruitful approach to resumption as last resort. Other approaches are possible as well, such as allowing parallel derivations with a pronoun versus a copy (Aoun p.c.), where the pronoun is not a grammatical formative. Since the derivations would involve different arrays under this scenario, they cannot be compared. This is desirable because comparison would violate local economy. In any case, the economy of resumptive pronouns is of such a different character that it does not directly resemble the type of economy discussed under the notion of local economy.

The relativized *First Resort/Last Resort* idea suggests a possible conceptualization of the unique economy of resumption/anti-resumption might be found under the rubric of *entangled derivation*. <sup>49</sup> When two derivations are entangled, there is a potential for one of two states: either there will be a gap (corresponding to the copy in a thematic or agreement-related position), or there will be a resumptive pronoun. The choice will be determined upon (non-) convergence and not before. The intervening structure is irrelevant, i.e., the history of the derivation up to the point of (non-) convergence is not of interest; the only thing that matters is knowing what is first resort (the initial state of the derivation) and then the last resort mechanism is automatically known upon inspection. This means that the actual state of the entangled derivations is not determined until necessary, and once necessary, is instantly known. How what is "instantly known" plays itself out at the PF-interface is the subject matter of an articulated theory of resumption, something which lies well outside the scope of this paper.

#### 6. CONCLUSION

In this paper I have investigated the syntax of subject dislocation in Kinande and attempted to establish that the phenomenon of anti-agreement has its locus in the syntax of dislocated subjects. The study affirms Grohmann's insight that movement has a lower bound, characterized by anti-locality (as well as the standardly claimed upper bound), and thus it affirms many of the historically earliest approaches to anti-agreement which interpreted anti-agreement as a Binding phenomenon. Moreover, it affirms the intuitions of various researchers that anti-agreement is related to Case, while at the same time demonstrating that lack of Case and irrealis form a syntactic natural class and thus favors research that can predict these as natural classes. Finally, this study is able to predict that arguments other than the subject must be affected by anti-

<sup>&</sup>lt;sup>49</sup> I thank Jean-Roger Vergnaud for suggesting this term for the concept, and connecting it to a possible quantum mechanics view.

agreement in anti-agreement languages. Thus it reveals a fact that is not obvious by surface inspection, and therefore establishes that there is less diversity among anti-agreement languages in terms of which arguments are subject to anti-agreement than might meet the eye. Clearly this results in a simplification of the acquisition of grammar for children who are acquiring an anti-agreement language: they simply need to learn that the language they are trying to acquire is one where subjects are canonically left dislocated.

## **REFERENCES**

Authier, J.-Marc. 1988. 'Null Object Constructions in Kinande', *Natural Language and Linguistic Theory* **6**, 19-37. Anagnostopoulou, Elena, Henk van Riemsdijk, and Frans Zwarts. 1997. *Materials on Left Dislocation*, John Benjamins, Amsterdam.

Anderson, Stephen. 1993. 'Wackernagel's Revenge: Clitics, Morphology, and the Syntax of Second Position', *Language* **69**, 68-98.

Aoun, Joseph. 1981. The Formal Nature of Anaphoric Relations, unpublished Ph.D. dissertation, MIT.

Aoun, Joseph. 1985. A Grammar of Anaphora, MIT Press, Cambridge, MA.

Aoun, Joseph and Abbas Benmamoun. 1998. 'Minimality, Reconstruction, and PF-movement', *Linguistic Inquiry* **29**, 569-97.

Aoun, Joseph and Lina Choueiri. 1999. 'Modes of Interrogation', in Elabbas Benmamoun (ed.), *Perspectives on Arabic Linguistics*, John Benjamins, Amsterdam, pp. 7-25.

Aoun, Joseph and Y-H Audrey Li. 1989. 'Scope and Constituency', Linguistic Inquiry 20, 141-172.

Baker, Mark. 1985. 'The Mirror Principle and Morphosyntactic Explanation', Linguistic Inquiry 16, 373-415.

Baker, Mark. 1996. The Polysynthesis Parameter, Oxford University Press, New York.

Baker, Mark. 2003. 'Agreement, Dislocation, and Partial Configurationality', in Andrew Carnie, Heidi Harley and MaryAnn Willie (eds.), *Formal Approaches to Function in Grammar*, Linguistics Today **62**, John Benjamins, pp. 107–132.

Bhatt, Rakesh. 2002. 'Verb Second', Handout- http://ccwf.cc.utexas.edu/~bhatt/lin3811/13.pdf.

Boeckx, Cedric. 2001. Mechanisms of Chain Formation, unpublished Ph.D. dissertation, University of Connecticut.

Boeckx, Cedric. 2003. Islands and Chains: Resumption as Stranding, John Benjamins, Amsterdam.

Borer, Hagit. 1984. Parametric Syntax, Foris, Dordrecht.

Cheng, Lisa Lai-Shen. 1997. On the Typology of Wh-Questions, Garland, NY.

Chomsky, Noam. 1995. 'Categories and Transformations', in Noam Chomsky, *The Minimalist Program*, MIT Press, Cambridge, MA, pp. 219-394.

Chomsky, Noam. 1999. Derivation by Phase, MIT Occasional Papers in Linguistics 18, MITWPL, Cambridge, MA.

Chomsky, Noam. 2000. 'Minimalist Inquiries: the Framework', in R. Martin, D. Michaels, and J. Uriagareka (eds.), *Step by Step: Essays in Honor of Howard Lasnik*, MIT Press, Cambridge, MA, pp. 89-156.

Chung, Sandra. 1982. 'Unbounded Dependencies in Chamorro Grammar', Linguistic Inquiry 13, 39-77.

Chung, Sandra. 1998. The Design Of Agreement: Evidence From Chamorro, University of Chicago Press, Chicago.

Clements, George. 1984. 'Binding Domains in Kikuyu', Studies in the Linguistic Sciences 14, 37-56.

Collins, Chris. 1997. Local Economy, MIT Press, Cambridge, MA.

Den Dikken, Marcel. 2006. Relators and Linkers, MIT Press, Cambridge, MA.

Den Dikken, Marcel and A. Naess. 1993. 'Case Dependencies: the Case of Predicate Inversion', *The Linguistic* Review 10, 303-336.

Diesing, Molly. 1992. Indefinites. MIT Press, Cambridge, MA.

Dukes, Michael. 1992. 'On the Status of Chamorro Wh-agreement', in Jonathan Mead (ed.), *Proceedings of the WCCFL* 11, Center for the Study of Language and Information, Stanford, pp. 177-190.

Emonds, Joseph P. 1970. Root and Structure-Preserving Transformations, Ph.D. dissertation, MIT.

Enç, Mürvet. 1991. 'The Semantics of Specificity', Linguistic Inquiry 22, 1-25.

Georgopoulos, Carol. 1985. 'Variables in Palauan Syntax', Natural Language and Linguistic Theory 3, 59-94.

Georgopoulos, Carol. 1991. Synactic Variables: Resumptive Pronouns and A'-binding in Palauan, Kluwer, Dordrecht.

Grohmann, Kleanthes. 2000. *Prolific Peripheries: A Radical View from the Left*, Ph.D. dissertation, University of Maryland, College Park.

Grohmann, Kleanthes. 2003. Prolific Domains. On the Anti-Locality of Movement Dependencies, John Benjamins, Amsterdam.

Grohmann, Kleanthes. 2005. 'The Road to PF', Handout from talk given at the 17<sup>th</sup> International Symposium on Theoretical and Applied Linguistics, Aristotle University, Thessaloniki, Greece.

Haik, Isabelle. 1990. 'Anaphoric, Pronominal, and Referential INFL', *Natural Language and Linguistic Theory* **8**, 347-374.

Hornstein, Norbert. 1995. Logical Form: From GB to Minimalism, Blackwell, Oxford.

Hornstein, Norbert. 2001. Move! A Minimalist Theory of Construal, Blackwell, Oxford.

Iatridou, Sabine. 1990. 'Clitics and Island Effects', manuscript, MIT, Cambridge, MA.

Jaeggli, Osvaldo. 1982. Topics in Romance Syntax, Foris, Dordrecht, Holland.

Jelinek, Eloise. 1984. 'Empty categories, Case, and Configurationality', *Natural Language and Linguistic Theory* 2, 39-76

Kayne, Richard. 1975. French Syntax. MIT Press, Cambridge, MA.

Kayne, Richard. 1984. Connectedness and Binary Branching. Foris, Dordrecht.

Kayne, Richard. 1994. The Antisymmetry of Syntax. MIT Press, Cambridge, MA.

Kayne, Richard. 2005. 'Pronouns and their Antecedents', in *Movement and Silence*, Oxford University Press, New York, chapter 6.

Larson, Richard. 1988. 'On the Double Object Construction', *Linguistic Inquiry* 19, 335-91.

Li, Y-H Audrey. 1990. Order and constituency in Mandarin Chinese, Kluwer, Dordrecht.

Li, Y-H Audrey. 1992. 'Dou: syntax or LF?' conference talk at the 4<sup>th</sup> North American Conference on Chinese Linguistics (NACCL). Michigan University, Ann Arbor.

Maranz, Alec. 1993. 'Implications of Asymmetries in Double Object Constructions', in Sam Mchombo (ed.), *Theoretical Aspects of Bantu Grammar I*, CSLI Publications, Stanford, pp. 113-150.

McCloskey, James. 2002. 'Resumption, Successive Cyclicity, and the Locality of Operations', in Samuel David Epstein and T D Seely, *Derivation and Explanation in the Minimalist Program*, Blackwell, Oxford, pp. 184-226.

McGinnis, Martha. 1998. Locality in A-Movement, unpublished Ph.D. dissertation. MIT.

Mutaka, Ngessimo Philip. 1987. 'Subject Position in Kinande', Handout, University of Southern California.

Ouhalla, Jamal. 1993. 'Subject-Extraction, Negation and the Anti-Agreement Effect', *Natural Language and Linguistic Theory* **11**, 477-518.

Phillips, Colin. 1994. 'Agreement Alternations', Handout from Minimalist Syntax and Comparative Grammar, U of Maryland. <a href="http://www.ling.umd.edu/colin/research">http://www.ling.umd.edu/colin/research</a>

Phillips, Colin. 1996. 'Disagreement between Adults and Children', Annual Meeting of the Linguistic Society of America, San Diego, (published 1998 in A. Mendikoetxea and M. Uribe-Etxebarria (eds), *Theoretical Issues on the Morphology-Syntax Interface*, ASJU, San Sebastian.)

Progovac, Ljiljana. 1993. 'Non-Augmented NPs in Kinande as Negative Polarity Items', in Sam Mchombo (ed.), *Theoretical Aspects of Bantu Grammar 1*, Center for Study of Language and Information, Stanford, pp. 257-270.

Richards, Norvin. 1997. What Moves Where When In Which Language?, unpublished Ph.D. dissertation, MIT.

Rizzi, Luigi. 1997. 'The Fine Structure of the Left Periphery', in L. Haegeman (ed.), *Elements of Grammar: a Handbook of Generative Syntax*, Kluwer, Dordrecht, pp. 281-337.

Rizzi, Luigi. 2002. 'Locality and Left Periphery', in A. Belletti (ed.), *Structures and Beyond: The Cartography of Syntactic Structures*, vol. 3, Oxford University Press, Oxford.

Schneider-Zioga, Patricia. 1988. 'Specifier/Head Agreement in Kinande', handout from the Second Niger-Congo Syntax and Semantics Workshop, MIT, Cambridge, MA.

Schneider-Zioga, Patricia. 1994. *The Syntax of Clitic Doubling in Modern Greek*, unpublished Ph.D. dissertation, USC.

Schneider-Zioga, Patricia. 1995. 'Specifier/Head Agreement in Kinande', *Cahiers Linguistiques d'Ottawa* 23, pp. 67-93.

Schneider-Zioga, Patricia. 1998. 'A Predication Analysis of Clitic Pronouns in Greek', in Pius Tamanji and Kiyomi Kusumoto (eds.), *Proceedings from NELS* **28** GLSA, Amherst, MA, pp. 183-196.

Schneider-Zioga, Patricia. 1999 'A Successive Cyclic Account of Anti-Agreement Effects in Kinande', Handout from Annual Meeting of the Linguistic Society of America, Los Angeles, CA.

Schneider-Zioga, Patricia. 2000. 'Anti-Agreement and the Fine Structure Of The Left Edge', in Ruixi Ai, Francesca Del Gobbo, et al (eds.), *University of California Irvine Working Papers in Linguistics* **6**, Irvine, CA.

Schneider-Zioga, Patricia. 2002. 'The Case of Anti-Agreement', in Andrea Rackowski and Norvin Richards (eds), *Proceedings of AFLA 8: the Eighth Meeting of the Austronesian Formal Linguistics Association*, MIT, MITWPL **44**, Cambridge, MA, pp. 325-339.

Tuller, Laurie. 1985. 'Tense Features and Operators in Hausa', in *Rapport de Recherches du Groupe de Linguistique Africaniste*, année 1985-1986, Montréal, pp. 493-516.

Van Riemsdijk and Zwarts 1997. 'Left Dislocation in Dutch and Status of Copying Rules', in Elena Anagnostopoulou et al (eds.), *Materials on Left Dislocation*, John Benjamins, Amsterdam, pp. 13-29.

Vikner, Sten. 1995. Verb Movement and Expletive Subjects in the Germanic Languages, Oxford University Press, Oxford.

Wackernagel, Jakob. 1892. 'Ueber ein Gesetz der Indogermanischen Wortstellung', *Indogermanische Forschung* 1, 333-446.

Zwart, C. Jan-Wouter 2005 'Verb Second as a Function of Merge', in Marcel den Dikken and Christina M. Tortora (eds) *The Function of Function Words and Functional Categories*, John Benjamins, Amsterdam, pp. 11-40.

Zubizarreta, Maria Luisa. 2000. 'The Cl(itic) Projection in Questions', in *The Catalan Working Papers*, Universidad Autónoma de Barcelona.

Zubizarreta, Maria Luisa. 2001. 'The Constraint On Preverbal Subjects In Romance Interrogatives: A Minimality Effect' in A. Hulke and J-Y. Pollock (eds.), *On Romance Inversion*, Oxford University Press, Oxford.

Received 12 July 2004 Revised 3 June 2006

University of Southern California Department of Linguistics Grace Ford Salvatori 301 Los Angeles, CA 90089-1693 <pschneid@usc.edu>