Anti-Agreement and the Fine Structure of the Left Periphery[*]
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1. Introduction

Anti-agreement is the phenomenon whereby subject/verb agreement in a language is sensitive to wh-extraction of the subject. More specifically, the canonical subject/verb marker in a language cannot be used if the subject it agrees with is (locally) extracted. This is illustrated in (1) for the Bantu language, Kinande, which displays anti-agreement. In example (1a) and (1b) we see the morpheme "a-" occurs to indicate canonical subject/verb agreement. In (1a) the canonical agreement morpheme expresses agreement with an overtly occurring subject. In (1b) the canonical agreement morpheme expresses agreement with a *pro* subject. When the subject (**IyOndI**) is locally extracted, the canonical agreement prefix cannot occur (1c), instead a special agreement prefix (**u-**) must occur (1d).

(1) a. Kambale **a**-langIra Marya<----- CANONICAL AGREEMENT
        K.   agr-saw Mary
        'Kambale saw Mary.'

    b. **a**-genda
       Agr-left
       'S/he left.'

    c. *__IyOndI__ yO **a**-langIra Marya
       Who that (canonical).agr-saw Mary

    d. **IyOndI** yO **u**-langIra Marya   <----- ANTI-AGREEMENT
       Who that   WH.agr-saw Mary
       'Who saw Mary?'

The phenomenon of anti-agreement raises the question of how and why the syntax of agreement involves wh-extraction. The answer must go beyond the idea that anti-agreement is simply a morphological reflection of the subject occupying the specifier of CP, and canonical

agreement is simply a morphological reflection of the subject occupying the specifier of TP (Tense Phrase, the standard subject position). One reason for this is because anti-agreement is sensitive to the locality of the wh-subject occupying the specifier of CP with respect to the agreeing verb. For instance, in Kinande, it appears to be optional whether or not a wh-subject that is extracted long distance induces anti-agreement on the verb at the site of extraction. This is illustrated in (2) where we see that long distance wh-extraction can induce anti-agreement (2a), but need not (2b):

(2) a. [cp**IyOndi**j[c'yO[K. akaBula[cpnga-yO **u-**kalangIra Marya   ]]]]]
      | _____ |
      who   that K.   wondered if –that.AGR WH.agr-saw   M.

   b.[cp**IyOndi**j [c'yO[Kambale akaBula[cp ng' **a-**kalangIra Marya]]]]]
       | _____ |
       who   that Kambale wondered if   agr-saw   Mary

1.1. Previous Analyses

Some early accounts of anti-agreement are binding theoretic. For instance, Ouhalla (1993) argues that canonical agreement determines a *pro* which cannot be locally A'-bound, and anti-agreement determines a variable which can be locally A'-bound. Schneider-Zioga (1988, 1995, 1996) has a similar approach. She views the canonical agreement in anti-agreement languages as having pronominal properties; in other words as being a pronominal clitic. She argues that canonical agreement is subject to principle B' in a theory that involves binding with respect to the A and A' system alike (see Aoun (1982)). Principle B' requires a pronominal expression to be A' free (not co-indexed with a c-commanding A'-expression) in a local domain. Therefore, canonical agreement cannot be locally bound by a Wh-subject. One problem with a binding theoretic approach is it is altogether not clear what binding is under minimalism. Moreover, if canonical agreement and/or the empty category it identifies is a pronoun, it does not behave like pronouns in general. For instance, generally, in languages with resumptive pronouns, a pronoun can resume an otherwise illicit gap and in this way rescue an island violation. For example, in English (and many other languages) a pronoun can resume a gap in subject position within an island and save an otherwise ungrammatical sentence. The contrast between the ungrammatical (3a)

and the grammatical (3b) illustrate this fact; as does the contrast between the ungrammatical (4a) and the more or less grammatical (4b):

(3)   a. *Who$_j$ did John wonder whether __$_j$ visited Mary?
         b. Who$_j$ did John wonder whether **he**$_j$ visited Mary?

(4)   a. *Who$_j$ did John say he read a book that __$_j$ wrote
         b.?Who$_j$ did John say he read a book that **she**$_j$ wrote

    Richards (1997) pursues a feature-based account of anti-agreement. He suggests that anti-agreement effects "signal the substitution of a weak subject-agreement feature for a strong subject-agreement feature." He argues this is a strategy for licensing overt wh-movement, creating a chain with only a single strong feature, which PF is then able to pronounce. One problem is the question of what exactly strength is. It can't be a morphologically defined notion because, for example, in Kinande a much more specific agreement, therefore, one with presumably more and therefore stronger features, is used when anti-agreement occurs. The notion of strong/weak feature tends to ultimately be a sophisticated description of linguistic facts.

    Watanabe (1996) pursues a feature-based account related to Case checking. He suggests that anti-agreement is a morphological reflex of his proposed Case-theory where Case/Tense and Agreement ultimately occur in the head of Comp due to his vision of how functional projections are checked. This mechanism leads to the possibility of wh-specifiers being registered morphologically on subject agreement (i.e. anti-agreement). Watanabe's account is far-reaching in the sense that he can connect not only agreement alternations that happen when wh-expressions are extracted, but also accurately predict that, for instance, mood (for him, located in tense) can be affected by wh-extraction. However, he has no explanation why invariably when mood is affected, realis mood must shift to irrealis and never the reverse. In his system the direction of the variation is completely accidental.[1]

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[1] My account can ultimately capture this fact and predict that this is the direction of the mood alternation, but for lack of space, I cannot develop that aspect of the analysis here. For details see Schneider-Zioga (in progress).

1.2. The Proposal

My account of anti-agreement is based simply on a proposed clause structure for pro-drop languages: I suggest, based on empirical and theoretical concerns, that preverbal subjects are located in a topic phrase very high in an enriched CP field, as illustrated schematically in (5):[2]

(5)   [topic phrase Subject-NP [focus phrase   [wh-phrase   […]]]

Language internal evidence in Kinande and widely observed cross-linguistic generalizations support this view of an enriched CP field, with this particular ordering of projections.

This view of the left edge envisions an explosion of CP equivalent to the explosion of IP first introduced by Pollock (1989). Many researchers in recent years have pursued this intuition but this idea was most explicitly articulated in Rizzi (1995).[3, 4]

In (6), below, we see that subjects, associated with canonical agreement, are located in the specifier of a topic phrase, structurally higher than the position of wh-phrases. Extraction from the topic position to the local spec of wh-phrase would result in downward movement, an illicit result because movement must successive cyclically expand the tree. Therefore, when canonical agreement occurs, local wh-extraction is forbidden because this would result in downward movement of the wh-expression to the spec of CP:

(6)   *[top-p IyOndi_j [whp   [wh' YO **a-**kalangIra Marya   ]]]
                 |_____↑
                 who   that-AGR   canonical.agr-saw Mary

Anti-agreement, forced by a certain interpretation of the EPP (the Extended Projection Principle), to be discussed in section 2.3, indicates that the wh-subject is not a topic and, therefore, occupies the spec of TP

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[2] I assume that a projection exists only if lexically motivated. For example, if there is no focused phrase, and thus no focus feature in a clause, the focus projection would not be projected.

[3] It was also addressed in Schneider-Zioga (1994, 1995) where a topic phrase, focus phrase, and "left edge phrase" were introduced to account for the varied position of complementizers and the ordering of XP's on the left edge in Greek. Zubizarreta (1998, 2000) investigates the CP field extensively for Romance.

[4] I will use the term CP throughout the text whenever this will not lead to confusion.

in the IP field. Given this location, local extraction is completely grammatical since it expands the tree:

(7)   [_wh-phrase   [_tp Subject-NP …]]
                    ↑_____|

This account accurately predicts that long distance extraction in Kinande does not require anti-agreement:

(8) [_whpIyOndi_j[_wh' yO[Kambale akaBula[_top-png' **a-**kalangIra Marya   ]]]]
              ↑_____|
        who   that Kambale wondered   if   canonical.agr-saw Mary

If subjects are generated in topic position, the lack of anti-agreement follows straightforwardly from the fact that "long distance" movement is really local movement and puts the wh-subject directly into the specifier of the superordinate Wh-phrase, thus expanding the tree:

(9) [_whpIyOndi_j[_wh' **yO**[K. akaBula [_top-p t_j[_cpng'**a-**kalangIra Marya]]]]]
              ↑_____|
          who   that-AGR Kambale wondered if canonical.agr-saw   Mary

Furthermore, this account predicts that anti-agreement is a phenomenon that occurs in languages with a rich left periphery that has, to some extent at least, grammaticalized discourse functions such as pragmatic sentential topic.

2.   Anti-Agreement in Kinande

2.1. Basic Syntax of Kinande

   Anti-agreement is a widespread phenomenon in languages of the world; nonetheless, I will focus my discussion initially and primarily on Kinande. Kinande is a pro-drop language. It has a very rich system of agreement based on the notion of noun class. Although most Bantu languages have a relatively free word order, subjects in Kinande are strictly preverbal; objects and indirect objects have a great freedom of word order. The basic word order of Kinande thus appears to be SVO.
   It can easily be established that wh-constructions in Kinande involve movement, as they are sensitive to strong islands, a standard diagnostic of movement. (10a) is an example of a relative clause. (10b) and (10c)

illustrate that subjects cannot be extracted out of relative clauses, regardless of whether anti-agreement occurs or not. (10d) illustrates, for completeness, that objects also cannot be extracted out of relative clauses:

(10) a. Mary'anzIrE [$_{NP}$ EBIalya$_j$ [$_{whp}$ EbyO$_j$ [$_{ip}$ OmUkalI ahuka x$_j$]]]
           Mary liked   the food   that   the.woman cooked
           'Mary liked the food that the woman cooked.'

    b.*IyOndI$_q$ yO$_q$ Mary'anzIra[$_{NP}$ eBialya$_j$[$_{whp}$ EbyO$_j$ [$_{ip}$ x$_q$ **a** -huka x$_j$]]]
        who that Mary liked the food that   canonical.agr-cooked
       * 'Who did Mary like the food that cooked?'

    c. *IyOndI$_q$ yO$_q$ Mary'anzIra [$_{NP}$ eBialya$_j$ [$_{whp}$EbyO$_j$ [$_{ip}$ x$_q$ **u**-huka x$_j$]]]
          who   that-AGR Mary liked the food that   WH-agr.cooked
        * 'Who did Mary like the food that cooked?'

    d.*EBIhI$_j$ ByO$_j$ Mary'anzire[$_{NP}$OmUkalI$_q$[$_{whp}$OyO$_q$ [$_{ip}$x$_q$ **u**-ahuka x$_j$]]]
        what that-AGR Mary likes the woman   that   cooked
      * 'What did Mary like the woman that cooked?'

        In wh-questions in Kinande, the extracted wh-word is immediately followed by a complementizer-like word that agrees in class (essentially gender and number) with the extracted element (recall (1d) for example). Although this construction certainly has a clefty flavor, it does not seem to be a cleft based on morphological evidence, including lexical items involved. Notice that what can unequivocally be analyzed as clefts have a distinctive complementizer "oyo" as indicated in (11a) and (11b). It is the same complementizer that occurs in relative clauses as indicated in (11c) where an example of a relative clause is given.[5]

(11)   a. omukali abyawa **oyo** Kambale asondire
               woman was   that Kambale met
               'It was the woman that Kambale met.'

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[5] If wh-constructions in Kinande could be convincingly demonstrated to be clefts, nothing substantial changes in the analysis developed above: all the arguments would simply apply to the embedded relative clause and its null operator. See Schneider-Zioga (in progress) for discussion.

b. ni mukali **oyo** Kambale asondire
   is woman that Kambale met
   'It is the woman that Kambale met.'

c. omukali **oyo** Kambale asondire
   the woman that Kambale met
   'the woman that Kambale met'

2.2 The High Position of Subjects in Kinande

The following sets of data can be simply and elegantly accounted for if we assume that subjects in Kinande are generated quite high in the syntactic tree, and in fact, above wh-phrase. Note firstly that subjects in simple embedded clauses precede the complementizer as indicated in (12) below. This falls out directly if subjects in Kinande occur above wh-phrase:

(12)   ....Kambale ng'alangIra Marya
         ...Kambale if ̔saw Mary
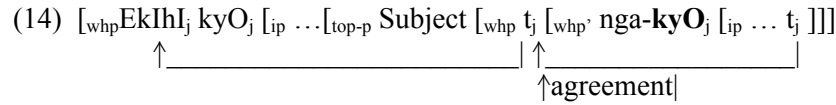   '...If Kambale saw Mary.'

This cannot be analyzed as a cleft structure for the same reasons given in section 2.1. Moreover, notice that the meaning of the complementizer used here is *if*, an unlikely choice for a cleft.

Secondly, consider the fact that it is possible to extract an object across an embedded subject if the embedded complementizer agrees with the extracted object:

(13) EkIhI $_j$ **kyO** $_j$ Yosefu a-kaBula[Kambale$_k$ nga-**kyO**$_j$ **a**-kalangIra x$_j$]
      what   that-AGR   J. wonders Kambale if -AGR   agr.see
     * 'What does Yosefu wonder if Kambale sees?'

Notice that the embedded subject in (13) precedes the embedded complementizer. This fact indicates that the subject is at least higher than WH^0 (the head of wh-phrase). It is natural to assume that the appearance of agreement on the complementizer is a reflection of movement through the specifier position which the complementizer heads. The fact that the embedded complementizer does not agree with the embedded subject which linearly precedes it, but instead agrees with the extracted object in the superordinate Comp, suggests that: (a) the embedded subject is not in the spec of the embedded wh-phrase, and so must be still higher; and (b)

the extracted object was able to pass through the embedded spec of wh-phrase, inducing agreement with the complementizer. This configuration is illustrated schematically:

(14) [$_{whp}$EkIhI$_j$ kyO$_j$ [$_{ip}$ …[$_{top-p}$ Subject [$_{whp}$ t$_j$ [$_{whp'}$ nga-**kyO**$_j$ [$_{ip}$ … t$_j$]]]
       ↑_____| ↑_____|
                                              ↑agreement|

If the embedded subject is structurally higher than the embedded wh-phrase, as suggested here, so that the specifier of wh-phrase was to be unoccupied, these facts are not remarkable.

2.2.1. Object/Subject Asymmetries

There are certain object/ subject asymmetries that are completely unexpected unless the embedded subject is structurally higher than the embedded WHP. As a first asymmetry note that when objects are extracted long distance, agreement must occur on the complementizer of each wh-phrase between the site of extraction and the wh-operator (see (15)). But when subjects are extracted long distance, it appears to be optional whether or not agreement occurs on the complementizer of each wh-phrase between the apparent site of extraction and the wh-operator (see (16)):

(15)a. EkIhI$_j$ **kyO**$_j$ Yosefu a-kaBula [$_{whp}$ nga-**kyO**$_j$ [$_{ip}$ **a**-kalangIra x$_j$]]
        what that-AGR J. wonders if -AGR agr.sees
       * 'What does Yosefu wonder if he sees?'

   b.*EkIhI$_j$ **kyO**$_j$ Yosefu a-kaBula [$_{whp}$ nga [$_{ip}$ **a**-kalangIra x$_j$]]
        what that-AGR J. wonders   if agr.sees
       * 'What does Yosefu wonder if he sees?'

(16) a. [$_{whp}$IyOndi$_j$ [$_{wh'}$ **yO**[Kambale akaBula [$_{cp}$ng' **a**-langIra Marya]]]]]
         who that-AGR Kambale wondered if agr-sees Mary
        * 'Who did Kambale wonder if sees Mary?'

   b.[$_{whp}$IyOndI$_q$**yO**$_q$K.'akaBula[$_{whp}$t$_q$[$_{wh'}$[$_{wh}$nga-**yO**$_q$]**u**$_q$-langIra Marya]]]
          who that-AGR Kambale wonders   if-AGR WH-agr.sees Mary
        * 'Who does Mary wonder if sees Mary ?'

Recall the assumption that the appearance of agreement on the complementizer is a reflection of movement through the specifier position which the complementizer heads. On this assumption, we see that objects must move successive cyclically through each spec of wh-p between the extraction site and the matrix landing site of the wh-word. It would appear that subjects are not required to move successive cyclically. But the conclusion that such an asymmetry between subjects and objects exists does not arise if we accept the very high subject hypothesis. If the subject can be generated higher than wh-phrase, movement to the superordinate wh-phrase simply proceeds from the topic position which is situated above the embedded wh-phrase. There would be no agreement on the complementizer which heads the subordinate wh-phrase, because the subject cannot pass through it, since the wh-phrase is structurally lower than the embedded subject in topic position. This situation is illustrated schematically below:

(17) $[_{whp}$ who$_j[_{wh'}$ **AGR**$[_{ip}$ …$[_{top-p}$ t$_j$ $[_{whp}$ $[_{wh'}$ if $[_{ip}$ … $]]]]]]$

Long distance movement of the subject that proceeds through the embedded as well as superordinate Comp requires anti-agreement (cf. (16b) and (18)). This is as expected since local wh-extraction (in this case, the first step of successive cyclic movement) is possible only when anti-agreement occurs.

(18).*$[_{whp}$ IyOndI$_q$ $[_{wh'}$ **yO**$_q[_{ip}$Mary'a-kaBula$[_{whp}$ nga-**yO**$_q$ **a**$_q$-BIrIgEnda]]]]
          who that-AGR Mary wonders   if-that   canonical-agr.has.left
        * 'Who does Mary wonder if has left?'

Note that the above asymmetries indicate not only a very high subject position, but also base generation of the subject as opposed to movement to the very high subject position, otherwise, we would lose any account of the asymmetry.
The above facts, moreover, indicate that only subjects, but not objects, can be generated very high in topic position. Object topics require the co-occurrence of an agreeing clitic in the verbal complex in order to function as topics:[6]

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[6] In this case, i.e., when the clitic co-occurs on the embedded verb, objects can also be extracted long distance without successive cyclic agreement. See Schneider-Zioga (1988) for examples.

(19)   EkItabU$_j$, Kambale a-ki$_j$-langIra
        the book, Kambaled Agr.tense-clitic-see
        'The book, Kambale saw (it).'

An additional object/subject asymmetry is the fact that a locally extracted subject blocks object extraction but not the reverse:

(20) a.*EkIhI$_j$ kyO Yosefu a-ka-Bula[IyOndI$_k$ nga-y' x$_k$ **u**-kalangIra x$_j$]
            what   that   J. wonders   who if -AGR WH.agr.see
         * 'What does Yosefu wonder who if sees?'

    b. IyOndI$_k$ yO Yosefu akaBUla [EkIhI$_j$ nga-ky' x$_k$ **a**-kalangIra x$_j$]
        who   that   J.   wonders   what if-AGR canonical-agr.sees
       'Who does Yosefu wonder what if (he) sees (it)?'

This is schematically illustrated in (21), following traditional assumptions about clause structure:

(21) a.*[wh-object$_k$ that[$_{ip}$ …[$_{cp}$wh-subject$_j$ that[$_{ip}$ t$_j$ [$_{vp}$ **u**-kalangIra t$_k$]]]]]
                                    ↑_____|
                    ↑_____|

    b.ok:[wh-subject$_j$ that[$_{ip}$ …[$_{cp}$wh-object$_k$ that[$_{ip}$ t$_j$ **a**-kalangIra t$_k$]]]]
                                    ↑_____|_____|
                    ↑_____|

The grammaticality of (21b) is surprising because usually languages prefer nesting to crossing in long distance dependencies. Moreover, this cannot be a superiority effect because, in local extraction contexts, superiority need not be respected. The following example illustrates that an object can be grammatically extracted across an in-situ subject, in which case the subject exceptionally follows the complementizer. A discussion of this exceptional word order will be postponed till later.

(22)   a. EkIhI kyO ndI akalangIra   (no superiority effects)
             What that-AGR who sees
           * 'What (does) who see?'

        b. IyondI yO ukalangIra ki
             Who that-AGR WH-agr.sees what
            'Who sees what?'

(20a) demonstrates that an extracted object is intercepted by a wh-subject located in the subordinate wh-phrase (as indicated by subject agreement on the subordinate complementizer). This follows from the fact that objects are obligated to move strictly successive cyclically as discussed earlier. The object/subject asymmetry follows directly if subjects in initial position are base generated higher than wh-phrase. In that case, what appears to be a case of crossing extraction actually involves two independent instances of extraction, which do not intercept each other in any way. This is illustrated schematically below. See (20b) for the actual data:

(23) [wh-subject$_j$ that[$_{ip…}$[$_{topic\ phrase}$ t$_j$ [$_{whp}$wh-object$_k$ that[$_{ip}$**a-**kalangIra t$_k$]]]]]
      ↑_____| ↑_____|

This data also indicates that the subject does not occur in the topic position via movement ((24) illustrates this incorrect hypothesis), but instead must be base generated there. If not, the embedded subject would be intercepted on the way to topic position by the embedded object:

(24) * [$_{whp}$ who$_k$ [$_{ip}$ … [$_{top-p}$ t$_k$ [$_{whp}$ what$_j$ [$_{ip}$ t$_k$ … t$_j$]]]]]
                                              ↑_____|_____|
                    ↑_____ | ↑____XXX___|

Since the subordinate subject can indeed extract to the superordinate Comp, it must be that the subject is base generated in the topic position.[7] Following the CLLD (Clitic Left Dislocation) literature (see, e.g., Cinque (1990), Iatridou (1991) and Schneider-Zioga (1994) and many others), where similar claims and observations have been made (for dislocated objects), I assume the base generation of subjects in topic position is accomplished via predication.

2.2.2. The Topic Interpretation of Initial Subjects

Given the very high subject hypothesis for Kinande, we have a free account of the fact that subjects in initial position are always interpreted as topics: they originate in topic as opposed to argument

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[7] Notice moreover, as we saw with the previous object/subject asymmetry, the data indicate that it cannot be the case that objects (without co-occuring clitic pronouns, as mentioned earlier) can also be base-generated extremely high in topic position. If they could, then there would be no asymmetries.

position. Firstly, note that there are no indefinite subjects in initial position in Kinande (25a) although objects can be interpreted as either definite or indefinite (25b and c):[8]

(25)   a. omwana alangira Marya
            child saw Mary
            '**The/*a** child saw Mary'

         b. Nga-ku-bulaya ekinywa
            I-tense-you-ask question
            'I am asking you **a/the question**.'

         c. Yosefu awite oko kitabu
            Joseph has on book
            'Joseph has **a/the book**.'

Secondly, there are no negative quantifiers in subject position (26a) unless anti-agreement occurs (26b) which, by hypothesis, means that the subject has originated internal to IP:

(26)   a.*__Si-ha-li mundo__ akayenda
            neg-there-be person canonical-agr.left
            'Nobody left.'

         b. **Si-ha-li mundo** oyo **u**-kayenda
            neg-there-be person that(relc) WH-agr.left
            'There is nobody that left.'/ 'Nobody left.'

The following example demonstrates that a QP such as "every N," which can receive a specific interpretation, is grammatical in initial subject position:

(27)   **oBoli mwana** alangIra Marya
         every child saw Mary
         'Every child saw Mary.'

         The above facts indicate that subjects in initial position need to be topics in Kinande. The sense of "topic" used here is based on

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[8] Examples b. and c. are from Mohammad M. Mohammad (1987).

Reinhart's (1982) notion "pragmatic sentence topic," as discussed in Zubizarreta (1998).

The fact that subjects in initial position must be topics is also demonstrated by yet another object/subject asymmetry, namely the fact that wh-objects can remain in situ, but wh-subjects appear to require extraction. This is illustrated in (29). (29a) illustrates that an object wh-phrase can remain in situ, but doesn't need to (29b). In contrast, (29c) illustrates that a subject wh-phrase in initial position cannot remain in situ, but must extract (29d):

(29)   a. Kambale akalangIra **ndI**
            Kambale saw   (no augment-)who
         'Who did Kambale see?'

        b. **IyOndI** yO Kambale akalangIra
            who   that-AGR Kambale saw
         'Who did Kambale see?'

        c.*__ndI__ akalangIra Marya
            who saw   Mary
         'Who saw Mary?'

        d. **IyOndI** yO ukalangIra Marya
            who that-AGR WH-agr.saw Mary
         'Who saw Mary?'

Notice that the in-situ form of the wh-word **ndI** is different than the extracted form **IyOndI**. It lacks an initial part of the word that is called the augment. An examination of unaugmented nouns in Kinande indicates that they function as indefinite variables. The following example illustrates an augmented noun. In (30a) the prefix **o** is the initial augment for the noun *mundo* 'person.' Examples (30b) and (30b') illustrate that when a quantifier determines the noun, presumably an operator/variable relation, there can be no augment on the noun:

(30)   a. **o**-mundo
            augment-person
             'person'

        b. oBuli *__o__-mundo/ok: oBoli mundo
            every *augment-person / ok:every person (unaugmented)
             'everybody'

b.' si-ha-li ***o**-mundo/ ok: si-ha-li mundo
 *not-there-be augment-person/ ok: not-there-be person
 'nobody'

The same point is illustrated for plural nouns in (31), with (31a) illustrating the augmented case and (31b) illustrating the unaugmented case with a quantifier determining the unaugmented noun:

(31)   a. **a**-Bana
        augment-children
        'children'

        b. ***a**-Bana BaBiri/ok: Bana BaBiri
          *augment-children two/ok: children (unaugmented) two
          'two children'

The examples in (32) illustrate that a noun that is determined by a demonstrative (32a), or the possessive pronoun meaning 'his' (32b), requires an augment:

(32)   a. ok: **e**-Biti eBi / *Biti eBi
         ok: augment-grass this/ *grass this (grass unaugmented)
         'this grass'

        b. ok: **e**-Bialya B'iwe / *Bialya B'iwe
         ok: augment-meal of'his / *meal of his (meal unaugmented)
         'his meal'

      We see then that nouns that are in operator/variable relations must be unaugmented. Returning to the object/subject asymmetry, we can account for the fact that the object wh-phrase, but not the subject one, can remain in situ by noting that the relevant fact is that initial subject NP's require augments, but object NP's do not.[9] This follows given that initial subjects occur in topic position and pragmatic topic-hood and indefinite variable-hood are incompatible. If a clause initial subject must be interpreted as a topic, this is semantically incompatible with the variable interpretation required of an in situ wh-phrase. Therefore, subject wh-phrases cannot remain in situ. Extraction requires anti-agreement, in which case the subject did not originate in topic

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[9] All initial subject NP's require augments, not just wh-phrases.

position as will be discussed in detail shortly. The object position, on the other hand, is not a topic position and therefore can host a wh-variable without further ado.

2.3. Anti-Agreement

We are now in a good position to see that when logical subjects aren't in initial position, that is, when they are preceded by wh-expressions, they are no longer required to be topics. In the discussion so far, we have seen two examples of non-initial subjects (examples given schematically):

(33) a. Wh-object [$_{ip}$ NP$_{subject}$ canonical.agreement-verb …]

   b. Wh-subject [t$_{subject}$ WH.AGR-verb …]

In example (33a), we have a case of object extraction across a subject. This is the one configuration where a (non-initial) subject can lack an augment. This is evident in the example in (22a), repeated below with structural details added: [10]

(22)   a. [$_{whp}$ EkIhI$_k$ kyO [$_{ip}$ ndI akalangIra   t$_k$]]
                What that-AGR who sees
            * 'What (does) who see?'

Note that the wh-subject not only follows the wh-phrase, but also lacks the initial augment. This means it is able to function as an indefinite variable (whose interpretation is presumably secured via absorption with the already extracted wh-phrase). Similarly, when we consider the configuration of anti-agreement, a subject, in this case the variable left by wh-movement, follows the wh-phrase. Clearly, the variable is not required to be interpreted as a topic, and cannot be interpreted as a topic. The following generalization can be made: IP internal subjects are always parasitic on the presence of a wh-phrase and they are not required to be interpreted as topics.

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[10] One alternative structural analysis is that non-initial wh-subjects are or can be in spec of whp when the initial wh-phrase is in spec of focus phrase. Nothing relevant seems to hinge on this difference in the current analysis, although such a possibility might be relevant to the explanation of how Kinande is able to avoid superiority effects when the object is extracted across a wh-subject. I leave this issue for future research.

Careful perusal of the data reveals that Kinande requires some kind of agreement morpheme to occur in second position (abstracting from its actual order within the second position cluster of morphemes), immediately following the clause initial phrase.[11] This agreement element may indicate agreement with the logical subject, which is also a topic in this case. Or it might indicate agreement with an extracted wh-phrase that occurs in clause initial position, in which case the logical subject is not a topic, and may be a variable. The following data illustrate the generalization concerning second position placement of agreement:

(34) a. Kambale **a**-yenda
      1   **2** 3
     Kambale **AGR**-left

  b. Ekihi$_j$ **kyO**$_j$ Kambale a-kalangira x$_j$
      1   **2**   3
     what that-**AGR** Kambale   saw
     'What did Kambale see?'

The agreement in second position requirement is also illustrated by the distribution of the negative particle *si-*, which must always occur initially in the second position cluster of morphemes. Again we see that the logical subject follows second position agreement just in case there is AGR in the enriched CP field related to wh-extraction.[12]

(35)   a. Kambale **si**-a-langIra Marya
        Kambale not-canonical.agr saw Mary
        'Kambale didn't see Mary.'

    b.*EkIhI kyO Kambale **si**-a-langIra
        What that.AGR Kambale not-canonical.agr-saw

    c. EkIhi **si**-kyo Kambale alangIra
        what not-that.AGR Kambale saw
      'What didn't Kambale see?'

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[11] The agreement element occurs in clause initial position if a null element such as *pro* or t is involved. By initial position, I mean from the perspective of PF.
[12] I am not assuming here some fixed second position, rather some contextually determined, relative second position.

The contrast between (35a) and (35b) indicates that the negative morpheme is not simply a prefix/proclitic to the canonical agreement morpheme; however, when canonical agreement occurs in second position, the negative morpheme immediately precedes it. As (35c) demonstrates, the negative morpheme must precede whichever agreement morpheme occurs in second position; so when wh-extraction occurs, the negative morpheme immediately precedes the wh-complementizer that is inflected to agree with the extracted wh-phrase.

I would like to propose that the agreement in second position requirement is due to the presence in Kinande of an EPP feature in the enriched CP field.[13] Traditionally, the EPP refers to the requirement that a clause have a structural subject. In more recent literature, this notion has been generalized to the requirement that certain XP's beyond IP must have specifiers (such as CP or vP). I take the EPP to require a specifier/head relation between a nominal in the enriched CP field and the relevant CP head. This relation must be indicated via an agreement morpheme occupying the relevant CP head. The agreement morpheme itself can (come to) occupy this position either through raising of an inflected verb, which bears agreement, or through occurrence in the relevant CP head of an inflected complementizer, depending on the lexical array involved. I assume that the EPP can only be satisfied once-if AGR in the CP field satisfies the EPP, AGR in I^0 cannot also satisfy it. (Cf. the approach to Yimas in Phillips (1994).)

Consider first the situation for topics. On empirical grounds, we know that there is no independent agreement morpheme for topics. Suppose that we have the following configuration, where EPP has no overt features:

(36) $[_{top-p}$ Subject-NP $[_{top'}$ EPP $[_{ip}$ a-Verb …]]]

In this case, the verb must raise to provide an agreement in accordance with the EPP, and the subject-NP, through specifier/head agreement, satisfies the EPP.

(37) $[_{top-p}$ Subject-NP$_j$ $[_{top'}$ a$_j$-Verb$_z$ -EPP $[_{ip}$ … t$_z$ …]]]

As already demonstrated, if the subject-NP in (37) were a wh-phrase, the derivation would fail with or without extraction. It would fail without extraction because the topic position cannot contain variables and that is the only option for the interpretation of in situ wh-phrases in Kinande. It would fail if extraction were attempted, because movement to the (local) spec of whp would require illicit downward movement-contra the requirement that movement must always expand the tree.[14]

Consider now the situation for wh-phrases. On empirical grounds we know that wh-phrases co-occur with independent complementizer-AGR morphemes that can satisfy the EPP requirement in the CP field (for example, **kyO**). I assume the following structure, considering first the case of object extraction:

(38) $[_{whp}$ Object-WH$_k$ $[_{wh'}$ EPP-that-AGR$_k$ $[_{ip}$ a-Verb ...]]]

The presence of an independent agreement morpheme satisfying the EPP in the CP field prevents overt verb raising to WH^0 for the same reason that complementizers in embedded clauses in V2 languages prevent verb raising to second position (perhaps because it is already occupied by the complementizer). There are, nonetheless, two reasons to believe that there is verb raising at LF in this configuration. One reason is the fact that the difference in interpretation between initial and non-initial subjects in Kinande is highly reminiscent of the interpretive difference between pre- and postverbal subjects (essentially topics in preverbal position and non-topics in postverbal position), as reported in the literature on Romance languages. Recall that Kinande has essentially strict SVO word order and so lacks a process of free inversion as found in most pro-drop languages. The parallels between the two languages suggest the possibility of covert verb raising to second position agreement in Kinande. The covert raising would put the IP internal subject in a derived postverbal position where I assume it can then undergo existential closure, thereby licensing indefinites, etc. in the IP internal subject position. The second reason to believe that covert verb raising to WH^0 occurs in Kinande is that this establishes a locality relation between EPP agreement and subject/verb agreement. Anti-agreement results when these two agreement features are identical (see (39). This would follow from economy, since agreement with one

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[14]A non wh-nominal that occupies the specifier of whp is interpreted as focused, and of course, requires anti-agreement. Note, moreover, that the extremely high subject cannot occupy spec of whp and meet the EPP via verb raising alone because projection of whp requires an overt complementizer.

argument is redundantly specified within the same clause, which would result in the EPP being satisfied twice.

(39)   a.* [$_{whp}$ Subject-WH$_j$ [$_{wh'}$ EPP-that-AGR$_j$ [$_{ip}$ a$_j$-Verb …]]]

b.*[$_{whp}$Subject-WH$_j$[$_{wh'}$[a$_j$-Verb$_z$[EPP-that-AGR$_j$]][$_{ip}$… $_z$…]]]

In order to avoid multiple satisfaction of the EPP, an agreement morpheme with no features specified is used as last resort for subject/verb agreement. In this case, the "subject" NP, no longer related to the EPP via canonical agreement, functions like an internal argument, and is thus structurally low enough to move into spec of CP:

(40)   [$_{whp}$ IyOndi$_j$ [$_{wh'}$ y'$_j$ [**u$_g$**-kalangIra]$_z$ [$_{ip}$ t$_j$ t$_z$ Marya]]]
                    ↑_____|
             who   that-AGR ' WH-agr.saw   Mary

In a sense, complementizer-AGR in WH^0 "demotes" the logical subject and has something in common with the anti-passive construction in that the subject behaves like an internal argument, but the direct object is not promoted. (This idea is discussed in detail in Schneider-Zioga (in progress).) Under the view presented here, the anti-agreement phenomenon indicates that morphologically overt agreement is related to the expression of argument structure as much as it is a reflex of a specifier/head relation. Moreover, the generalized EPP in the CP field, a "second position" effect, is always associated with agreement in Kinande. If recent minimalist perspectives on the function of agreement are correct, this fact indicates that the initial position must be interpreted as a displacement position. In fact, it is a position occupied by displaced XP's in Kinande if we consider displacement to include not only strictly a chain created via movement, but also a chain created via predication.

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