The Agreement Phrase in Phrase Structure Derivations in Western Nilotic Languages

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Abstract

In this paper we explore the differences in the Agreement Phrase that have arisen in Western Nilotic languages, a sub-family of the Nilo-Saharan language family. We adopt a Principles and Parameters approach which makes the claim that languages are fundamentally similar at the deep structure. It places emphasis on morphological operations as being responsible for many of the differences among languages. Our study finds that there are now clear grammatical differences that have emerged among these related languages. We have found out that Northern Luo languages (N. Luo) are closer in their grammatical operations as compared to Southern Luo languages (S. Luo). This approach provides us with the theoretical devices that have enabled us to explain a number of puzzling grammatical phenomena in these languages.

Introduction

In this paper, we will discuss how simple sentences are derived in Western Nilotic languages, namely Acooli, Lang'o, Luo, Dinka, Nuer and Shilluk. We want to use Pollock's (1989) proposal that there are functional categories in language, namely tense, agreement and negation, which form part of the inflectional phrase (formerly referred to as the auxiliary) and which can be projected into their own maximal phrases, namely the tense phrase (TP), agreement phrase (AP) and negation phrase (NegP) respectively. We will see that a number of the structural differences these languages have is due to syntactic processes taking place in their inflectional phrases.

Agreement between the subject and verb can be realised at S-structure. Our proposal, which we will illustrate shortly, is that the phenomenon where we find bound pronouns on the verb is actually a case of agreement being spelt out on the verb. For instance, in Luo we can derive the following sentences in (1):

(1) a.   In   i –chamo   ring'o   (Luo)
             You   2nd per.sg.eat   meat
               'You are eating meat'

     b.   I –chamo   ring'o
             2nd per.sg.eat   meat
               'You are eating meat'

     c.   *In   chamo ring'o

d.   Yona   chamo   ring'o

Yona   eat   meat
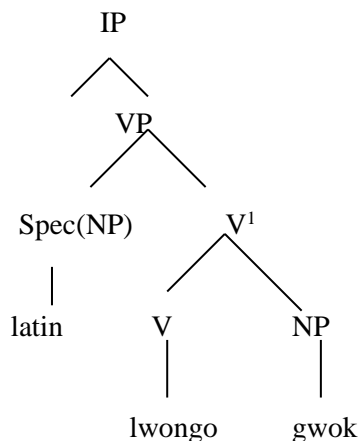
'Yona is   eating meat'

From the data in (1) we can see that the independent pronoun form is a free morpheme and not an affixed form (**In** as opposed to **I-)** which can only occur when there is also the dependent form: bound morpheme or affixed form. The dependent form can occur alone as a subject marker in a sentence. In (1c) we see that this freedom is not granted to the independent pronoun form, that is why (1c) is ungrammatical. This shows that for Luo, at least, the independent pronoun form can only occur in an S when its agreement features are spelt out on the verb. This would require a morphological checking movement, which means that the verb has to move to an AgrP node to have these features spelt out on it, since in the VP the verb does not have them. We illustrate these types of movement below, such as in (3).

AgrP in the Seven Languages

1. Acooli

In a simple sentence such as (2), where there is minimal overt manifestation of grammatical agreement or structural movement, the AgrP node is omitted and the derivation of the S can be completed within the VP.

(2)   Latin   lwongo   gwok

child   call   dog

'The child is calling the dog'

```
            IP
           /\
            VP
           /  \
  Spec(NP)     V¹
     |         /\
   latin     V    NP
             |     |
          lwongo  gwok
```

The subject NP is inside the VP according to the clause internal hypothesis (Kuroda 1988). It occupies the specifier position of the VP. It is in a specifier-head relation to the verb, which is the

head of the VP. It is therefore able to receive the agent θ-role, while the object NP, being the complement, will receive the theme θ-role.

The Economy Principle (Chomsky 1991) ensures that only the necessary operations to realise S-structure derivations are computed. So (2) is well-formed. There is no need to mark AgrP here since no operation requiring this node is undertaken.

Now let us look at a more interesting example, (3), where overt grammatical agreement is spelt out.

(3)   In   i-lwongo   latin
                You   2nd per.sg.call   child
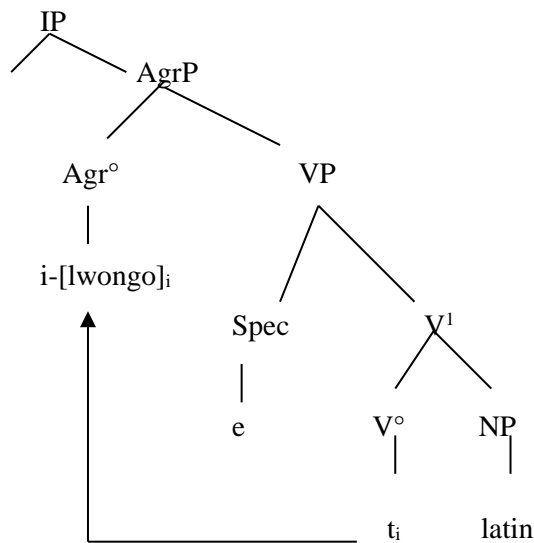   'You are calling the child'
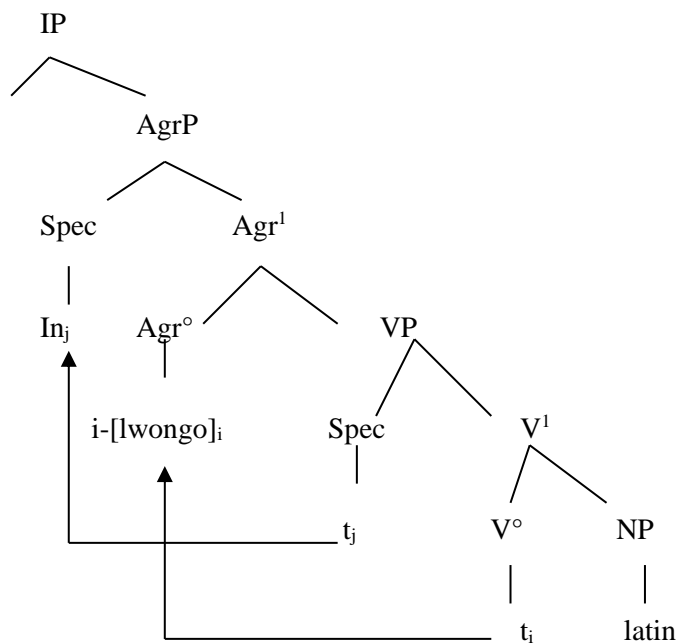
In (3) there is an overt manifestation of agreement. There must be an AgrP node in the derivation.

Within the VP the two arguments of the V, i.e. the subject and the object, are in unique argument positions to receive their θ-roles. The V then has to move to AgrP for morphological checking. The Economy Principle licenses a morphological checking movement of the V to Agr°. Since the V has moved, its specifier, that is the subject, must also move to the specifier of AgrP in order to maintain the specifier-head relation. Otherwise the S will be ill-formed at S-structure.

Sentence (4) has the independent pronoun omitted. This results in differences in derivation, as compared to sentence (3).
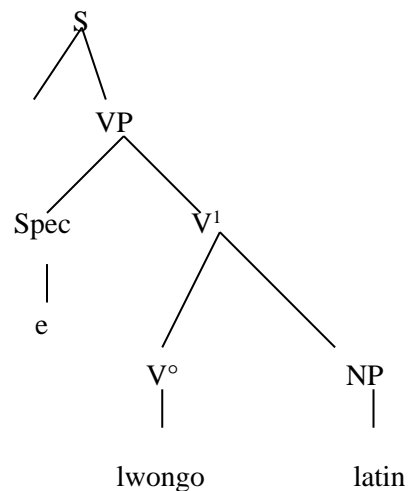
(4)   i – lwongo   latin

2nd pers.sg.call   child

'You are calling the child'

```
            IP
           /  \
              AgrP
             /     \
        Agr°        VP
         |         /   \
   i-[lwongo]ᵢ   Spec    V¹
                  |      /  \
                  e    V°    NP
                       |      |
                       tᵢ    latin
```

In (4) only the V has to move to Agr° for morphological checking. The V has to pick up the agreement features, otherwise the S will be ill-formed if it does not move out of the VP as in (5).

(5)   *Lwongo   latin

                     call   child

```
            S
           / \
            VP
           /   \
       Spec     V¹
        |      /  \
        e     V°   NP
              |     |
           lwongo  latin
```

Thus in (4) although the subject NP does not appear at S-structure, we can still see its features expressed in the V in the AgrP. This means that the subject NP is actually present at the beginning of computing the sentence but once its features are spelt out on the verb in the AgrP, it can be elided at S-structure.

2. Lang'o

(6) is a simple Lang'o sentence without any agreement markers.

(6)   otino   maro   tuko
           child   like   play
           'The child likes games'

In deriving (6) the Economy Principle ensures that we do not add an AgrP node for features that are not expressed at S-structure. The V assigns a θ-role to the object and another to the subject which is in the specifier position of the VP. The phrase structure of the derivation is therefore similar to that for Acooli.

In (7), however, agreement is spelt out on the verb:

(7)   A–neno   atin
           1st pers.sg-see   child
           'I am seeing the child'

The AgrP node has to be included for the derivation of (7) to be possible. The V is then able to move up to Agr° for morphological checking. The agreement pronoun receives the features of the full independent pronoun. The independent pronoun is then erased during the derivation.

3. Luo

Luo, like Acooli and Lang'o, can have a construction like (8) where agreement between the subject and the verb is not required.

(8)   Yona   biro
       Yona   come
       'Yona is coming'

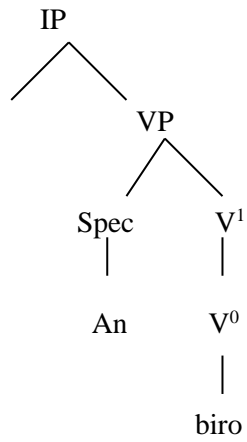In (8) all the necessary derivation operations can be completed within the VP. The V only has one θ-role which is assigned to the specifier of the VP, the subject. No overt grammatical markings are spelt out. There is therefore a minimum of XP nodes as required by the Economy Principle.

But a structure like (9), in which some derivation operations have not occurred, is ill-formed.

(9)   *An   biro
            I   come

It has been derived with a phrase structure like the one which makes (8) possible, as shown in (10).

(10)

```
                IP
               /  \
                    VP
                   /  \
                Spec    V¹
                 |       |
                An      V⁰
                         |
                        biro
```

A construction such as (10) needs agreement marked on the V overtly for it to be well-formed. It means that the V must move up to the AgrP node for a morphological checking of these agreement features, as in (11):

(11)

```
                        IP
                       /  \
                        AgrP
                       /    \
                 Spec        Agr¹
                   |        /    \
                 Anⱼ    Agr⁰      VP
                   ↑     |       /   \
                 a-[biro]ᵢ   Spec    V¹
                   ↑      ↑     |      |
          _____|     tⱼ     |     V°
         |      _____|            |
         |     |                       tⱼ
```
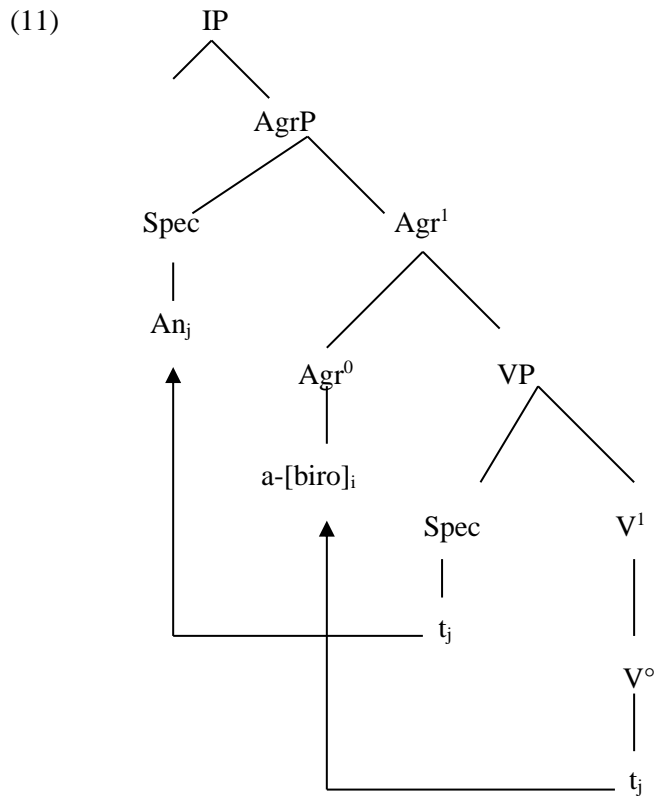
The derived sentence is (12):

(12)   An   a-biro

                I   I.come

                'I am coming'

In (11) the V is able to move to Agr° for morphological checking. The subject moves up to maintain the Spec-Head relation and is in a position to C-command its trace and antecedent-govern it.

4. *Dinka*

In Dinka, unlike in Acooli, Lang'o and Luo, a sentence such as (13) is possible:

(13)   en   cam   cuin   (Dinka)

                I   eat   porridge

                'I am eating porridge'

Compare (13) to (14) from Lang'o:

(14)   a.   In i–lwongo   latin   (Lang'o)
              You 2nd pers.sg.-call   child
              'You are calling the child'

        b.   *In lwongo   latin
              You call   child

(14b) is similar to (13) in that in both there is no AgrP node in the phrase structure for either derivation to have the agreement marker on the verb. But while at S-structure this is allowed for Dinka, it is not for Lang'o (14), Acooli and Luo, as shown in (15) and (16):

(15)   *In   chamo   ring'o   (Luo)
             You   eat   meat

(16)   *In   lwongo   latin   (Acooli)
             You   call   child

Dinka does, however, also have constructions where an agreement marker is affixed on the V and thus requires an AgrP node for that type of derivation to be possible.

(17)   Kuaar   a-col   meth
            chief   3rd pers.sg.call.   boy
            'The chief is calling the boy'

The affixed pronoun, i.e. **a-**, is actually a default subject marker on the verb and is restricted in appearance. In (17) there must be an AgrP node so that the V can raise to Agr° for morphological checking. The subject also moves up to be in a specifier-head relation to the V.

5. *Nuer*

In Nuer, like in the other four languages we have looked at above, a sentence with a subject and no agreement marker is possible, as in (18).

(18)   dwac   kuaar   dhool
              beat   chief   boy
              'The chief is beating the boy'
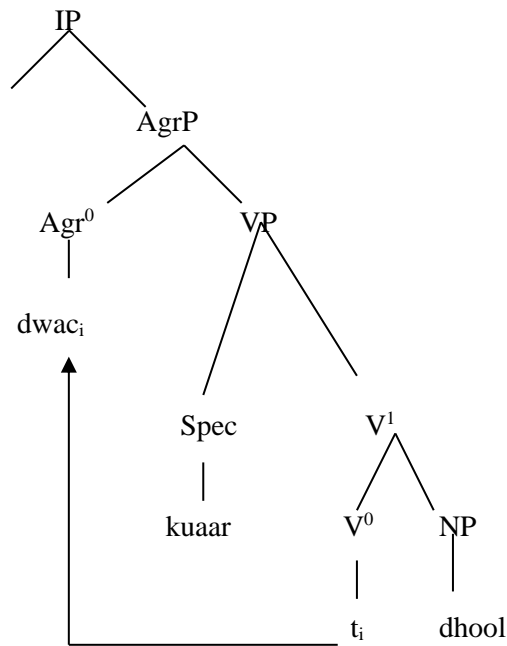
The subject NP and the object NP are assigned their respective θ-roles by V in the VP. There are no overt agreement markers spelt out. The derivation should end there, but apparently there are strong phrase structure requirements that V be in the initial position in the S. There is therefore a structural movement to Agr°.

(18) can be constructed in a slightly different way where the V does not have to be in the initial position of the S, as in (19).

(19)   Kuaar   dway –e   dhool
           Chief   beat-3rd pers.sg.   boy
           'The chief is beating the boy'

Initially both the subject NP and object NP are inside the VP where they are assigned their θ-roles of Agent and Patient, respectively. The V has to move to Agr° for morphological features to be checked. The subject NP then moves to the specifier of AgrP to maintain the specifier-head relation.

6. Shilluk

In deriving (20) there is no need for the AgrP node, since there are no agreement markers that may require morphological checking in the AgrP.

(20)   man   thala   ring'o
              women   cook   meat
              'Women are cooking meat'

The two arguments of the V, namely the subject NP and object NP, are assigned their θ-roles by the V. There are no further requirements and the correct S-structure is produced.

It is also possible to have constructions with independent subject pronouns as in (21).

(21)   yi mara yan

       you love me

       'You love me'

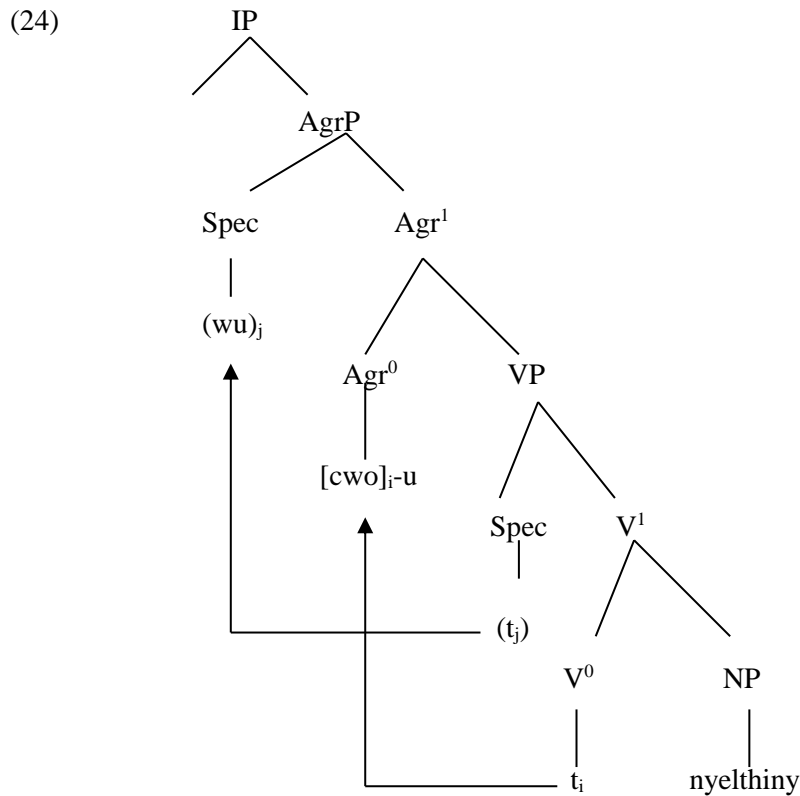Compare (21) from Shilluk to (22) from Luo, which is ungrammatical.

(22)   *In hero an (Luo)

       You love me

Thus it is clear that the phrase structure used to derive (21) cannot be used to derive (22). In (21), the independent object pronoun, **yan**, has replaced a NP while in (22) the same type of pronoun, **an**, is not allowed to replace an NP.

Another construction is (23), where the agreement marker is suffixed to the V.

(23)   (wu) cwol-u   nyelthiny

       (you) call.2nd pers.pl   boy

       'that you are calling the boy'

This construction is restricted to the subjunctive mood in Shilluk. The suffixation of agreement markers is limited to plural persons: singular person agreement pronouns are not allowed and in fact do not exist in the paradigm.

(24)

```
                      IP
                     /  \
                      AgrP
                     /    \
               Spec        Agr¹
                 |         /    \
              (wu)ⱼ    Agr⁰      VP
                 ↑      |       /   \
                 |   [cwo]ᵢ-u  Spec   V¹
                 |      ↑      |     /  \
                 |      |    (tⱼ)  V⁰    NP
                 |_____|____       |     |
                        |    tᵢ   nyelthiny
```

As shown in (24), the free subject pronoun, **Wu**, is easily erasable in the process of derivation. It, however, leaves morphological features in Agr°. The V therefore moves up for morphological checking. The object NP is assigned its θ-role inside the VP. The subject NP also receives its θ-role within the VP and then moves to the top specifier of AgrP. Or it can be erased in the process of derivation and all its features transferred to the agreement marker.

Conclusion

We can now summarise some our findings about the languages we have considered in this paper. There differences are clearly linked to two sub-families: S. Luo (Acooli, Lang'o, Luo) and N. Luo (Dinka, Shilluk, Nuer).

1.   S. Luo

Agreement features are overt. Thus an independent or free subject pronoun must have an affix marker on the verb.

(25)   a.   An   a-lwongo   latin   (Acooli)

I   I.call   boy

'I am calling the boy'

b.   *An   lwongo latin

      I   call   child

(26)   a.   An   a-lwongo   atin   (Lang'o)

            I   I.call   boy

            'I am calling the boy'

b.   *An   lwongo atin

      I   call   child

(27)   a.   An   a-lwongo   nyathi   (Luo)

            I   I.call   child

            'I am calling the child'

b.   *An   lwongo nyathi

      I   call   child

We can see that in all the three languages the (b) examples are degraded or not well-formed. This leads us to conclude that Agreement is a strong requirement in the syntactic inflection of S. Luo.

     There is a further difference between Luo and the other two languages. With the 3rd person singular object pronouns it is possible to omit the Agreement marker on the verb in Acooli and Lang'o, but not in Luo.

(28)   a.   En   lwongo   latin   (Acooli)

            He   call   boy

            'He is calling the boy'

b.   En   lwongo   atin   (Lang'o)

            He   call   boy

            'He is calling the boy'

c.   *En   lwongo   nyathi   (Luo)

            He   call   child

            'He is calling the child'

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(28c) is degraded because the Agreement marker on the verb is omitted. Luo therefore seems to demand a stronger Agreement marking than the other two languages.

2. *N. Luo*

In N. Luo on the other hand Agreement marking is at best minimal overtly. Only Nuer has a full paradigm of affix subject pronouns that can appear on the verb like in S. Luo languages. In Shilluk these appear only in the Subjunctive Mood and in Dinka these appear in the Interrogative Sentences in plural persons only.

(29)   a.   Gen   cam   cuin   (Dinka)

                      I   eat   porridge

                      'I am eating porridge'

        b.   Ya   cwola   dhaano   (Shilluk)

                      I   call   person

                      'I am calling someone'

        c.   Thaal-a   ring   (Nuer)

                      cook.I   meat

                      'I am cooking meat'

We can see that in Dinka and Shilluk there is no overt Agreement marking. Sentences (29a) and (29b) are acceptable in those languages. If we try to produce similar sentences in S. Luo, we will find them degraded.

(30)   a.   *An   madho nyuka   (Luo)

                      I   drink   porridge

        b.   *An   lwongo   atin   (Lang'o)

                      I   call   boy

The differences between (29a) or (29b) and (30a) - (30b) go to show the differences in grammatical restrictions in these languages. In N. Luo, because of covert Agreement, the sentences constructed are free as regards the inclusion or omission of Agreement features.

References

Baker, M. 1988. *Incorporation.* Chicago: University of Chicago Press.

Battisella, E. 1991. 'The Treatment of Negation in Double Model Constructions.' *Linguistic Analysis 21:* 49-65.

Chomsky, N. 1991. 'Some notes on economy of derivation and representation' in Freidin, R. (ed) *Principles and Parameters in Comparative Grammar.* Cambridge, MA: MIT Press.

Chomsky, N. and Lasnik, H. 1991. '*Principles and Parameters Theory*'. MIT Manuscript.

Crazzola, J.P. 1955. *A Study of the Acooli Language.* Oxford: Oxford University Press.

Crystal, D. 1987. *The Cambridge Encyclopaedia of Language.* Cambridge: Cambridge University Press.

Iatridou, S. 1990. 'On AGR(P).' *Linguistic Inquiry 21*: 551-76.

Kuroda, S.-Y 1988. *Whether We Agree or Not: A Comparative Syntax of English and Japanese.* Stanford, Calif.: CLSI Publications.

Okoth-Okombo, D. 1982. *Dholuo Morphonemics in a Generative Framework*. Berlin: Dietrich Reimer Verlag.

Omondi, L. 1982. *The Major Syntactic Structures of Dholuo*. Berlin: Dietrich Reimer Verlag.

Pollock, J-Y 1989. 'Verb movement, Universal Grammar and the structure of IP.' *Linguistic Inquiry 20:* 365-424.

Pollock, J-Y 1992. 'Review [Belletti: Generalized Verb Movement]'. *Language 68:* 36-40.

Tucker, A. N. 1966. *Linguistic Analyses.* Oxford: Oxford University Press.