MODELLING INCLUSIVE IMPERATIVE: A COMPUTATIONAL MINIMALISM PERSPECTIVE [*]

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1. INTRODUCTION

Several formalizations exist today that attempt to implement the so-called *minimalist* principles introduced by Chomsky (1995). The first of these are *minimalist grammars (MG)* developed by Edward Stabler (1997, 1999, 2001). A minimalist grammar MG is a quadruplet (V,Cat,Lex,F) where :

- V = {P ∪ I}, a set of non syntactic features *(vocabulary)*. Vocabulary items have two parts: phonetic features (P) and semantic features (I).
- Cat = {base ∪ selector ∪ licensor ∪ licensee}, a finite set of syntactic features *(categories)*. Syntactic features are partitioned into four kinds: base, selectors/probes, licensors, licensees.
  x : base (**c, t, v, d, n,** ...)
  =x : selector/probe
  −x : licensee
  +x : licensor (i.e feature that triggers move)

- Lex = a finite set of expressions built from V and Cat *(lexicon)*.
- F = {merge ∪ move} : a set of generating functions.

  Merge (or external merge) is a binary operation that takes two expressions and puts them together. That means: a head with the feature =x merges with a tree whose category is x to built a new tree in which these two features are deleted.

  Move is a unary operation that takes a single expression and "rearranges" its parts, but technically Move (or internal merge) targets (some part of) an expression to remerge it higher in the structure. Move is applied to a subtree with a feature −x.

  Merge and Move apply to trees where : (1) internal nodes are labeled with < or >, (2) leaves are pairs <α, ß> with α = vocabulary item and ß = set of features.

  In this paper, we propose an analysis of Ewondo[1] inclusive imperative within the minimalist grammars framework.

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[1] A Bantu language spoken in Cameroon

2. THE PHENOMENON

Inclusive imperatives are characterized by the fact that the speaker is including him/herself in the command he/she utters or the request he/she makes. This case is illustrated in Hebrew (1) and Russian (2) (Dobrushina and Goussev 2005:193, 194) where two types of inclusiveness can be clearly distinguished: minimal inclusive vs augmented inclusive.[2]

(1)   a.   bo'   nelex.
           come.IMP.2SG.M go.FUT.1PL
           'Let's go! (you-singular and me)'
      b.   bo'-u   nelex.
           come.IMP.2M.PL go.FUT.1PL
           'Let's go! (you-plural and me)'

(2)   a.   Davaj   pojd-em!
           PART.2SG go.FUT.1PL
           'Let's go! (you-singular and me)'
      b.   Davaj-te pojd-em!
           PART.2PL go.FUT.1PL
           'Let's go! (you-plural and me)'

In (1)-(2), the examples with *you-singular* and *me* indicate minimal inclusive while those with *you-plural* and *me* refer to augmented inclusive.

This distinction is also found in Bantu languages where it appears under different names: plural Allocutive (Van de Velde et al. 2010), cohortative dual, cohortative plural (Schadeberg 1977). This phenomenon is characterized by the presence of a verbal suffix or enclitic (henceforth ENCL) at the end of the imperative verb form (3b)[3] (Van de Velde and al. 2010), of verbal exhortative (4b), of non verbal exhortative (5b).

(3)   a.   yèmb-á.
           sing-SG.IMP
           'sing.2$_{pers.sg}$.IMP'
      b.   yèmb-á-**ándʼi**.
           sing-IMP-ENCL
           'sing.$_{2pers.pl}$.IMP'

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[2] I have redefined Ewondo grammatical number as Minimal (Min) and Augmented (Aug) following Corbett (2000) and Harbour (2011), thus we have one single feature [±aug]:

Person	- augmented	+augmented
1	[+1-2-A]	[+1-2+A]
1+2	[+1+2-A]	[+1+2+A]
2	[-1+2-A]	[-1+2+A]
3	[-1-2-A]	[-1-2+A]

[3] This is Orungu language spoken in Gabon

(4) a.   Ɣá-yemb(T?)-ò   (Ɣáyémbò).
           SUBJ-sing-PAST
           'Let's sing (i.e I + you)!'
     b.   Ɣá-yemb(T?)-ò-**án`i**                            (Ɣáyé mbónd`i).
           SUBJ-sing-PAST-ENCL
           'Let's sing (i.e I + you +...+you$_n$)'

(5) a.   mbóló.
           Good morning!
           'Good morning (to you$_{2.pers.sg}$)'
     b.   mbóló-**án`i**
           Good morning-ENCL
           'Good morning (to you$_{2.pers.pl}$)!'

This means that in some Bantu languages, a suffix can be added to lexical units to reflect the plural. In Ewondo, this suffix is mainly found in imperative forms[4].

2.1. Types of imperative clauses

We distinguish four types of imperative clauses in Ewondo: the hortatives imperatives or inclusive (6) (Amougou et Mbezele 1981:132) whose main feature is that the order is addressed solely to the first and second person[5]; jussives (7) (Essono 2000:489) taking a subject marker (sm) for third person indicate the case when the request is addressed to the third person; exhortatives as (8) (Amougou et Mbezele 1981:166) marking the desire and imperatives[6] (9) characterizing an order made in the second person.

(6) a.   **ń**-kəl-ə́   á ǹsĭyăd   múlí.
           [+1+2-A]-Imp.go-ENCL to 3MIN.other side 3MIN.there
           'let's (only I + you) go to the other side.'
     b.   **ń**-kəl(l)-án   á ǹsĭyăd   múlí.
           [+1+2+A]-Imp.go-ENCL to 3MIN.other side 3MIN.there
           'Let's (I + you +...+ you$_n$) go to the other side.'

(7)   **b**ə́-kódó-g**ó**   bə́-zu   mú.
           [-1-2+A]SM-leave-[-1-2-A Imp] [-1-2+A] SM-come.Subj 16MIN.here
           'they should leave and come here.'

(8)   o-líi-g**ɪ**   mʊɔɛ́.
           [-1+2-A]PRO-stay-[-1+2-A Imp] X.peace
           'take care (lit. 'stay in peace').'

(9)   kalə́-(g)**án**   mà esóá   kɔ̌s.
           hand on-[-1+2-A Imp] me 7MIN.plate 9MIN/AUG.fish
           'hand the plate of fish on to me.'

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[4] To begin, we use the term 'imperatives' in a general sense. Throughout the text, we will give a more precise meaning.
[5] The latter can be singular (that means for us 'minimal') or plural (i.e 'augmented')
[6] We can now say that the word "imperative" will be used for imperative clauses with 2e person

There are no negative forms for imperative clauses. However, negation is obtained with the word *tə* (10b) or the auxiliary verb *bə́* (11b) (Amougou et Mbezele 1981:123) followed by thepresent tense.

(10) a.   fudi-gi   abwí   mə́ndím.
            put-[-1+2-A Imp]   5MIN.a lot of 6aUG.water
            'put a lot of water.'
      b.   **Tə**   wà-a-fudi   abwí   mə́ndím.
            NEG   [-1+2-A]-Pres-put   5MIN.a lot of 6AUG.water
            'Don't put a lot of water.'

(11) a.   bɔ-ɔg
            do-[-1+2-A Imp]
            'do.2pers.sg.imp!'
      b.   o   bə́   bɔ.
            [-1+2-A] Aux (neg) Inf.do
            'Don't do that!'

In inclusive imperative, the speaker is addressing at the same time both himself and one or more other persons. While this is an order, the inclusion of the speaker marks a mitigated imperative. So we have two verbal extensions for imperatives and three types of person features:

Person	Minimal	Augmented
1+2	ń-**V**-àgà	ń-**V**-àn
2	∅-**V**-àgà	∅-**V**-àn
3	á-**V**-àgà	bə́-**V**-àgà

Figure 1: Pronominal forms of imperatives

Persons 1+2 and 3 have subject markers (*ń-*, *á-*) while person 2 does not have any. Suffix *-àgà* appears in all minimal forms and in third person augmented. Only persons 1+2 et 2 have suffix *-àn* in augmented forms. We will see how to specify the case of third person augmented.

Suffixes *-àn* / *-àgà* play several roles in relation to the verb stem to which they are attached. They seem to suggest what Embick (1995) called *Person-Number* and that refers here to the second person minimal or augmented. These suffixes appear after the verb root in settings where they mark imperative mood. These verbal suffixes indicate the time / mood and person-number. The morphosyntax of Bantu verbal extensions provide various syntactic and semantic information (mood, tense, aspect, reciprocity, translation, ...).

In sum, the enclitic in Ewondo simultaneously encodes tense, person, mood and aspect features. As in Zulu (Buell 2006:96), Ewondo ENCL is a complex syntactic head consisting of $Mood^0$, T^0 or Asp^0 and $Pers^0$. However, ENCL can't be decomposed into its different syntactic heads, because there is no one-to-one correspondence between heads ($Mood^0$, T^0/Asp^0, $Pers^0$) and morphemes making ENCL. That is what we can observe in the following examples :

(12)   **ń**-laŋ-**a**
           [+1-2-A] PRO -read-[-1+2-A Imp]
           Let's read (only I + you)!

(13)   **ń**-laŋ-**án**
            [+1-2-A] _{PRO} -read-[-1+2+A Imp]
            let's read (I + you +...+ you$_n$)!

We see in (12), (13) that ENCL features encode at the same time person [-1+2] feature, number [-A] feature and [Imp] feature. The subject (i.e the Agent) for (12), (13) is a PRO ń-labeled [+1-2-A] for minimal inclusive and [+1-2+A] for augmented inclusive.[7]

In Ewondo, prefixes of hortatives indicate the speaker while enclitic morpheme refers to addressee(s). So we will have the following features for subject-marker (SM) and enclitic.

Subject Marker	Verb Root	Enclitic
ń -	[. . .]	-àn
[+1-2-A]		[-1+2+A Imp]
ń-	[. . .]	àgà
[+1-2-A]		[-1+2-A Imp]

Figure 2: SM and ENCL features

What we observe in figure (2) is that, there is a clash when it comes to define person features associated to the verb. The subject of minimal inclusive is 'I + singular addressee', while that of augmented inclusive is 'I + plural addressee'. The [Imp] feature assigned by ENCL motivates some properties of the subject. The [Imp] feature triggers *+1* on the subject-marker. The enclitic specifies how many people the speaker is talking to[8]. In the case of inclusive imperatives, the speaker is addressing both himself and one or more addressee (s). The problem at hand is twofold:

- what is the syntactic role of the verbal suffix (i.e encl)?
- in Bantu language, verbal prefixes are said to bear agreement features. But in the case of inclusive imperatives where the verbal prefix /ń-/ is identical in minimal and augmented forms, the question is: how and what comes to trigger agreement for first person inclusive (minimal or augmented)?

To answer these questions, we proceed step by step showing how through derivations, lexical units are put together to build inclusive verbal form.

3. DESCRIPTION AND MINIMALIST FORMALIZATION

3.1. Preeminence of marked feature

For our analysis, we assume *-àgà* is a syncretic form of imperative and minimal inclusive and *-àn* is a syncretic form of imperative and augmented inclusive. Suffixes *-àgà*, *-àn* are syntactic enclitics, they can never be separated from the verbal root. We can now define the features of ENCL (14) :

(14)   àgà   ⇔   [-aug Imp]
            àn   ⇔   [+aug Imp]

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[7] However, we cannot say that ENCL features always refer to subject phi-features as the same enclitic is found in lexicalized forms where it is not question of subject. Examples (3)-(5) and (Buell 2006:136-137).
[8] or at least the number of people who are actually responsible for executing the order given by the speaker

In the case of third person, the addressee is not the one who is expected to perform the request. He is charged with enforcing the request issued by the speaker. In the following examples, the addressee does not have to clean the house, he has to transfer this request to someone else:

(15)   á-fími-ŋi   ndá .
         [-1-2-A]-clean-[-aug Imp]   9MIN.house
         'he should clean the house'

(16)   bə́ -fími-ŋi   ndá .
         [-1-2+A]-clean-[-aug Imp]   9MIN.house
         'they should clean the house'

In (16), we have two different number features : [+A] on *bə́-*and [-aug] on *ŋi*. To solve this problem, we make proposition (1) below.

Proposition 1. *When the two features are combined, [+aug] is preeminent on [-aug]. In short, marked feature is of utmost importance.*

3.2. Assumptions

To account for inclusive imperatives, we start from the generally accepted hypothesis that imperative clauses are sentences in which the subject is not pronounced. We also recognize that subject is second person imperative (Jensen 2003, van der Wurff 2007, Zanuttini, Pak & Portner 2011), and by correlation, subject person of inclusives is dual.

We also assume there is a Force specification with a value [dir] in hortatives, imperatives, jussives and exhortatives. So, entries for Ewondo imperative paradigm are: [±1±2±A dir]. Feature [±augmented] can be used either independently or combined with another φ-feature. Here, it is associated with person features to determine the speaker and/or the hearer in inclusive clauses.

Imperative clauses have CP structure (Han 1999, Platzack & Rosengren 1998, Potsdam 1998, Bennis 2007) where C^0 is defined as the place of interpretation of the imperative operator. The syntax of imperative clauses is similar to that of interrogative clauses. Following Han (1999:120), we assume imperatives have an imperative (illocutionary force) operator directive with feature [dir] in C^0. This illocutionary force is encoded in the syntax, [dir] feature is included in the morphosyntactic feature of the operator in C^0. The [dir] feature is responsible for driving verb movement to C^0 in imperatives.

This approach differs from Jensen (2003) who said that the feature indicating the type of imperative sentence is contained in T^0 :
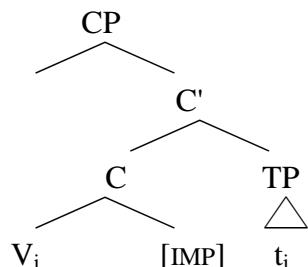

Figure 3: V°-to-C° Movement

3.3. Subject of inclusive imperatives

Ewondo imperative can have different types of subjects like a verbal prefix *ń* (17), vocatives (18), pronouns (19). Jensen (2003:154) outlines six criteria that characterize vocative DP, four of these criteria are applicable to Ewondo. Indeed, in the examples below, there is a prosodic boundary between vocative DP and VP. It is marked in writing by the comma. At syntactic level, vocative DP does not trigger agreement even when DP indicates third person. In terms of phrase structure, DP occupies a clause-external position. And finally, semantically, reference is only to the addressee.

(17) a. **ń-laŋ-á**   kalara.
         [+1+2] .PRO-read-[-aug Imp]   1MIN.book
         'Let's (only I + you) read the book'
     b. **ń-laŋ-án**   kalara.
         [+1+2]. PRO -read-[+aug Imp] 1 MIN.book
         'Let's (I + you +...+ youn)read the book'

(18) a. Johannès, **ń-laŋ-á**   kalara.
         1MIN.John [+1+2] . PRO -read-[-aug Imp] 1 MIN.book
         'John, let's (only I + you) read the book'
     b. * Johannès, **ń-laŋ-án**   kalara.
         1 MIN.John [+1+2] . PRO-read-[+aug Imp] 1 MIN.book
         'John, let's (I + you +...+youn)read the book'
     c. Johannès, Maria, **ń-laŋ-án**   kalara.
         1 MIN.John,   1 MIN.Mary, [+1+2] . PRO-read-[+aug Imp] 1 MIN.book
         'John, Mary, let's (I + you + you) read the book'
     d. * Johannès,   Maria,   **ń-laŋ-á**   kalara.
         1 MIN.John, 1 MIN.Mary, [+1+2] . PRO-read-[-aug Imp] 1 MIN.book
         'John, Mary, let's (only I + you) read the book'

To explain the ungrammaticality of (18b, d), consider the case of (18b). This sentence is not acceptable since there is a semantic disagreement between PRO which is plural and its "antecedent" *John* which is singular. PRO and *John* don't agree in number.

(19) a. wà,   **ń-laŋ-á**   kalara.
         You_SG,   [+1+2] . PRO -read-[-aug Imp] 1MIN.book
         'You_SG, let's (only I + you) read the book'
     b. * wà,   **ń-laŋ-án**   kalara.
         You_SG,   [+1+2] . PRO-read-[-aug Imp] 1 MIN.book
         'You_SG, let's (I + you +...+youn)read the book'
     c. mína,   **ń-laŋ-án**   kalara.
         You_PL (there)   [+1+2+A] . PRO-read-[+aug Imp] 1 MIN.book
         'You_PL, let's (I + you +...+youn)read the book'
     d. * mína,   **ń-laŋ-á**   kalara.
         You_PL (there)   [+1+2+A] . PRO-read-[+aug Imp] 1 MIN.book
         'You_PL, let's (only I + you) read the book'

According to Jensen (2003), declarative and imperative clauses have the same syntactic structure and thus the same structural configuration. She deconstructs the thematic subject appearing in [Spec, vP] by assigning it two semantic interpretations. For imperatives, she

distinguishes what she calls intended agent (Jensen 2003:155) corresponding to Agent θ-role and addressee or hearer, the one to whom the request is addressed. Agent and hearer are unified in imperative clauses.

What differentiates thematic subject of declaratives from that of imperatives is the semantic function of each subject. For declaratives, the thematic subject is subject of predication generated in SpecvP and moved to SpecTP; while in imperatives, the semantic content of the subject is the addressee i.e the hearer. She therefore distinguishes thematic subject from addressee. That can account for sentences like (20)-(24).

Agent and hearer are connected in two ways: (1) by default, Agent and hearer are identical and thus seen as unified subject of imperatives, this is the case of jussives and third person imperative clauses; (2) the second case is when Agent and hearer are not connected by a relation of identity but by a control relationship (Jensen 2003). It means a person x has control over another one y if x has the power to make y do what x commands him to do. This power can come from a social, military, political, economic context.

(20)   Someone move this dog! (Jensen 2003:157)

(21)   Someone move this dog, John! (Jensen 2003:157)

(22)   Johannès, **ń**-laŋ-**á**   kalara.
            1MIN.John [+1+2] . PRO-read-[-aug Imp] 1 MIN.book
            'John, let's (only I + you) read the book'

(23)   wà,   Ø-laŋ-**á**   kalara.
            YouSG,   Ø-read-[-1-2-aug Imp] 1 MIN.book
            'YouSG, read the book'

(24)   wà,   **ń**-laŋ-**á**   kalara.
            YouSG,   [+1+2] . PRO-read-[-aug Imp]   1 MIN.book
            'YouSG, let's (only I + you) read the book'

In (20), *Someone* is an agent, and the hearer is any group of people who are potential receptors of this command. *Someone* is part of this group. In (21, 22), Agent and hearer are different. Vocative DPs like *John* (21) are hearers i.e those to whom the command is directed. However, the responsibility to execute this command may be that of John or that of somebody else designated by John. The addressee is *Johannès* in (22), but the responsibility to give effect to the command is both that of *Johannès* and the speaker whose presence is revealed by the morpheme *ń*-that is the verbal prefix of inclusive imperatives. The difference between (23), (24) is the inclusion or not of the speaker.

3.4. Specification of agreement features in Probe-Goal relation

The head element of the clause triggers agreement by imposing its class marker to its dependents. Regarding inclusive imperatives where there is either a vocative DP or a verbal prefix *ń*-, agreement is in person (and number).[9] The aim is therefore to determine person features of the verbal prefix n in inclusive imperatives, and especially how is the probe-goal relationship established. Agreement is an operation that maps uninterpretable features of a goal with interpretable features of probe. Once the correspondence is made, the former are deleted.

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[9] As with nominal classes, one cannot dissociate the expression of person feature from number feature, both are intrinsically linked.

Ewondo inclusive imperatives have discontinuous morphemes (*ń ... àn*, *ń ... àgà*). In contexts where IMPPRO / ń/ appears with ENCL án, imppro has person features [+1+2+A][10]; and contexts with ENCL *àgà*, *ń* is equivalent to [+1+2-A]. These features are summarized in (25).

(25)   ń ⇔ [+1+2+A]/_àn
            ń ⇔ [+1+2-A]/_àgà

Furthermore, we assume that functional heads require selectionnal features on the next functional head. The feature description proposed here is based on (26) (Picallo 2008:53) whose premise is that probe are always non valued, (26b) and (26d) are likely probe. Features of type (26a) are goal agreement operations because they are valued, moreover, lexical items having (26a) features are not interpretable at Logical Form (LF), agreement operation with their correspondence results in the removal of instances of these features at Spell Out. Items corresponding to (26c) do not participate in syntactic agreement operations. They are valued, thus cannot be probe; they are interpretable at LF, so they cannot be deleted. If they participate in syntactic agreement, they can only be goal.

(26)   a.   [valued, uninterpretable]
        b.   [non valued, uninterpretable]
        c.   [valued, interpretable]
        d.   [non valued, interpretable]

Unlike the second person of imperative, the verbal prefix (IMPPRO *ń-*) of inclusive is spelled phonologically and rendered by a lexical morpheme that appears in [Spec, vP]. As with nominal classes, person features also indicate grammatical number. The lexical morpheme in [Spec, vP], IMPPRO *ń-*, has interpretable feature $[1+2_0]$.[11] The category with $[1+2_0]$ is a selector. The feature $[1+2_0]$ that will always be interpreted at [Spec, vP] is selected as non valued. The valuation here is a simple AGREE operation consisting to check that person ϕ-feature $(+\overrightarrow{1+2}_0)$ in Mood° head is the same as $(-\overrightarrow{1+2}_0)$ in [Spec, vP].[12,13] The person feature defined in ENCL is in turn valued and uninterpretable. This gives a goal (Picallo 2008:53). The AGREE operation results in the removal of these features at Spell Out.

(27)   ń-: $[1+2_0]$: interpretable, non valued
        -á(n) : $[1+2_0]$: uninterpretable, valued

Second person imperative would be problematic. Specifying imppro features, we implicitly say that an empty subject as pro would have interpretable syntactic features. We admit, as is the case in most of the work, that it is the verbal inflection that produces interpretable features for pro (Bennis 2007:128). In Spanish and in Italian for instance, the verbal paradigm is fully specified for person and number phi-features that are uninterpretable (Bennis opcit). pro therefore appears equipped with interpretable and non valued features.

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[10]   IMPPRO = imperative pronoun (Platzack and Rosengren 1996)

[11]   The index after person feature is related to the notation used to specify grammatical number, eg $[1+2_0]$ means first person inclusive minimal i.e [+1+2-A], and $[1+2_1]$ means first person inclusive augmented i.e [+1+2+A].

[12]Imagine τ and ν are two features. In the definition of AGREE, the arrow above τ and ν. distinguishes agreement features from +x/X and -x features used to trigger MOVE (or internal merge). The arrow is a notational distinction, that however implies different syntactic behavior. For internal merge, +x moves the sub-tree with -x to the specifier position of the head. Whereas with $+\overrightarrow{\tau}$ and $-\overrightarrow{\nu}$ regarding AGREE operation, it is a simple checking operation, say whether the value of the feature $+\overrightarrow{\tau}$ is equivalent to that of the feature $-\overrightarrow{\nu}$

[13]We assume ENCL is a verbal inflection referring to mood that appears in [Spec, MoodP]

(28)   pro : $[2_0/1]$: interpretable, non valued
            -á(n) : $[2_0/1]$: uninterpretable, valued

As for third person, the enclitic suffix has uninterpretable and valued person features.

(29)   á-: $[3_0]$:   interpretable, non valued
            bɔ́- : $[3_1]$: interpretable, non valued
            -á : $[3_{0/1}]$: uninterpretable, valued

A similarity can be made between Picallo (2008) and Bennis (2007), the latter defines agreement features in Dutch imperatives in terms of [±interpretable, ±specified], specification involving an inflectional morpheme that determines the values of morphosyntactic features involved. The term specified is considered here as valued in Picallo (2008).

## 3.5. Syntactic derivations

Thus to derive an inclusive form as (30),

(30) **ń**-laŋ-**á**
      [+1+2] . PRO-read-[-aug Imp]
      Let's read (only I + you)

we need the following lexicon:

(31)   laŋ : V ϵ : V= IMPPRO= v*
            ń : sm<= IMPPRO ϵ : sm -$\overrightarrow{1 + 2}_0$
            à : V= +$\overrightarrow{1 + 2}_0$ imp ϵ : imp o : =imp 1Excl
 ϵ : =1EXCL dir

step 1: merge (V= IMPPRO = v* / ϵ /, V /laŋ/)

The syntactic lexical item V= IMPPRO= v* / ϵ / merges with V /laŋ/ triggering a head movement with left adjunction. The notation ° > indicates a complex head (Stabler 1998) of type [V-v].
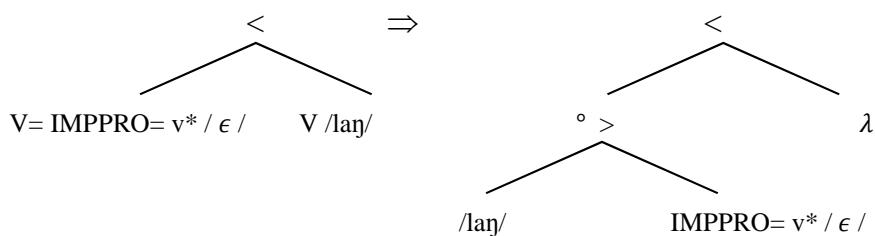
step 2: merge (sm<= IMPPRO / ń /, sm -$\overrightarrow{1 + 2}_0$ / ϵ /)

We derive an object IMPPRO which is merging with the first step. sm<= means: move the phonetic content of the selecting head (i.e *ń*) and put it before the phonetic content of the selected head. *ń* is therefore set to ϵ. We ultimately have IMPPRO with person feature - $\overrightarrow{1 + 2}_0$.
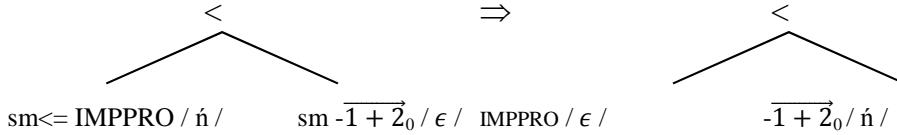
step 3: merge (1, 2)

The subject of Ewondo imperative inclusives is overt, it merges as Agent in [Spec, vP*]. Unlike jussives forms which, in English, French, and German have empty subjects (Han 1999:130), Ewondo imperatives inclusives have an IMPPRO / *ń* -/ that appears in front of the verb. IMPPRO is somewhat ambiguous in that *we*-dual and *we*-inclusive have the same prefix. We have a merge with left adjunction.
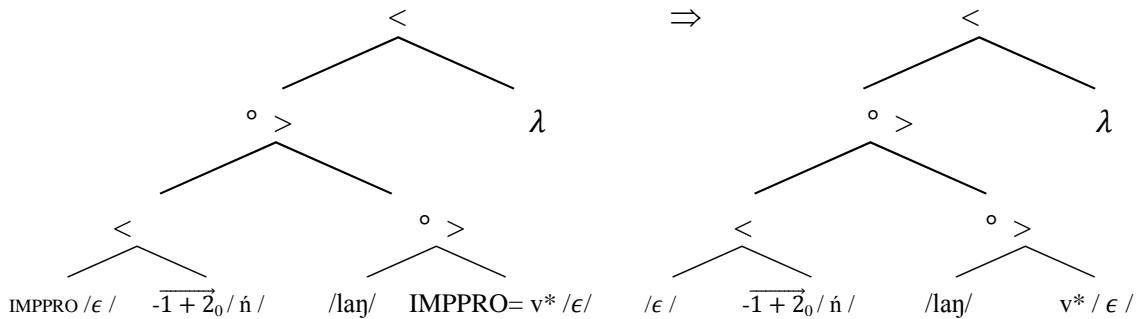
step 4: merge (V= +$\overrightarrow{1 + 2}_0$ imp /à/, 3)

The affix ENCL is realized under Mood° and merges with third step as part of the verb, then person feature valuation with AGREE which is a simple checking process. ENCL and V are morphologically linked (they cannot be separated). Roberts (2005), following Pollock (1989), notes that verb inflection in Welsh can determine the strength (or nature) of V's feature associated with T head, involving V to T movement: 'If there is verbal inflection of the relevant type, then [T] has a strong V-feature' [14] Roberts (2005:49). The distribution of the enclitic accounts for Roberts' remark, except that we will have a head movement with left adjunction.

Proposition 2. *ENCL is a morpheme that appears under Mood° and operates as a syntactic affix that attracts the verbal base.*[15]

In other words, it is the presence of ENCL that appears in a head above vP that causes the rise of the verb. The rise of the verbal root (or root-V) to ENCL is similar to *syntactic incorporation* (Sportiche 1998) i.e a head movement that always moves the root upwards. The functional head Mood° has a strong V= feature that attracts the verb to encl. This gives the complex head [V-v-Mood].

---

[14] Here Roberts uses AgrS
[15] This proposal is adapted from Roberts (2005:52 (11))

$\Rightarrow$

Tree 1 (left):
$<$
- V$=+\overrightarrow{1+2}_0$ imp /à/
- $<$
  - $°>$
    - $<$: /ε/ , $-\overrightarrow{1+2}_0$/ń/
    - $°>$: /laŋ/ , v* / ε /
  - λ

Tree 1 (right):
$<$
- $°>$
  - $°>$
    - $<$: /ε/ , $-\overrightarrow{1+2}_0$/ń/
    - $°>$: /laŋ/ , v* / ε /
  - $+\overrightarrow{1+2}_0$ imp /à/
- $<$
  - λ λ
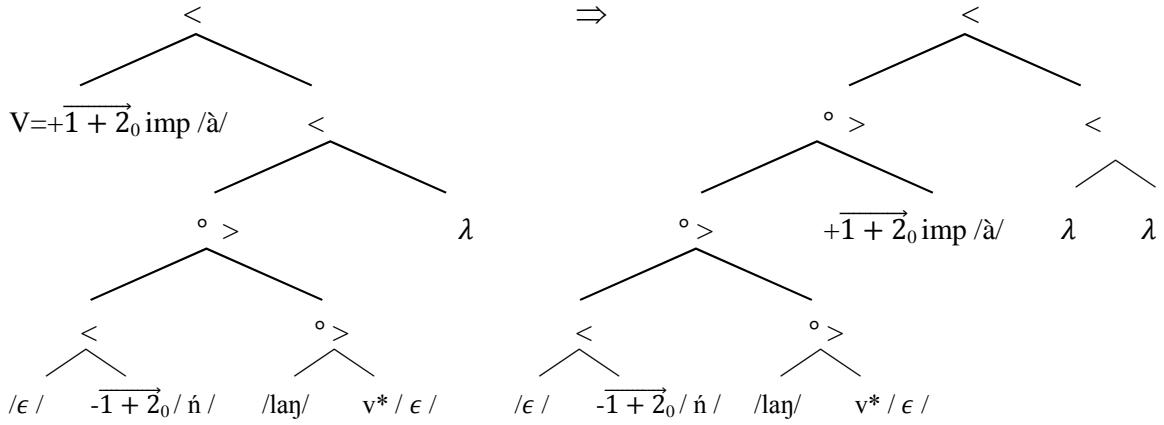
step 5: AGREE (4)

The enclitic is a syncretic head (T^0, Mood^0, Asp^0, Pers^0) that appears under MoodP, a functional head below TP and above vP. We have an agreement operation, AGREE, which checks that person features of Mood^0 ($+\overrightarrow{1+2}_0$) are the same as those of [Spec, vP] i.e $-\overrightarrow{1+2}_0$. After if the checking is successful, both features are deleted.

$\Rightarrow$

Tree 2 (left):
$<$
- $°>$
  - $°>$
    - $<$: /ε/ , $-\overrightarrow{1+2}_0$/ń/
    - $°>$: /laŋ/ , v* / ε /
  - $+\overrightarrow{1+2}_0$ imp /à/
- $<$
  - λ λ

Tree 2 (right):
$<$
- $°>$
  - $°>$
    - $<$: /ε/ , / ń /
    - $°>$: /laŋ/ , / ε /
  - imp /à/
- $<$
  - λ λ
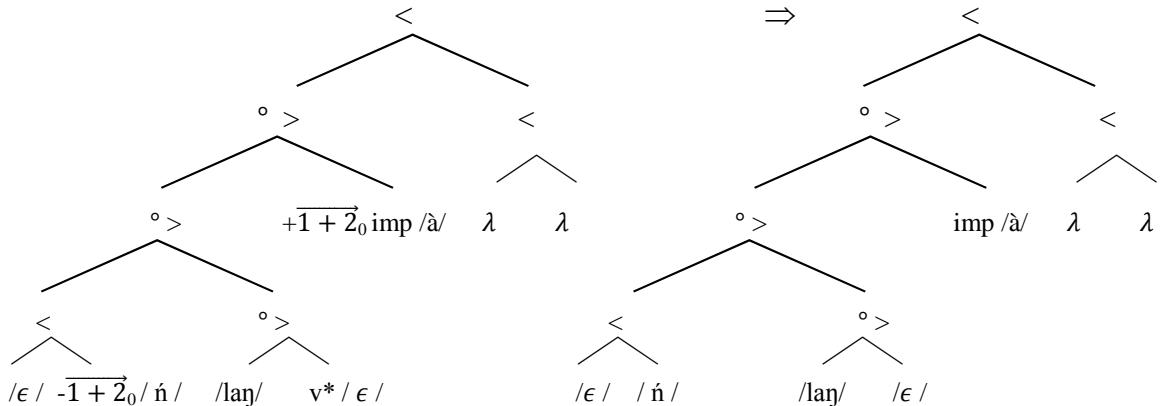
step 6: merge (=imp 1Excl /ε/, 5)

The T° head has person and tense phi-features (Jensen 2003). The person ϕ-feature is on the semantic dimension of imperative subject i.e the hearer (addressee), it is written here as 1Excl.

```
        <                    ⇒                    <
   =imp 1Excl /ϵ /        <              1Excl /ϵ /           <
                    ° >        <                        ° >        <
              ° >     imp /à/  λ    λ              ° >     /à/  λ    λ
           <    ° >                           <    ° >
      /ϵ /  / ń / /laŋ/  /ϵ /            /ϵ /  / ń / /laŋ/  /ϵ /
```
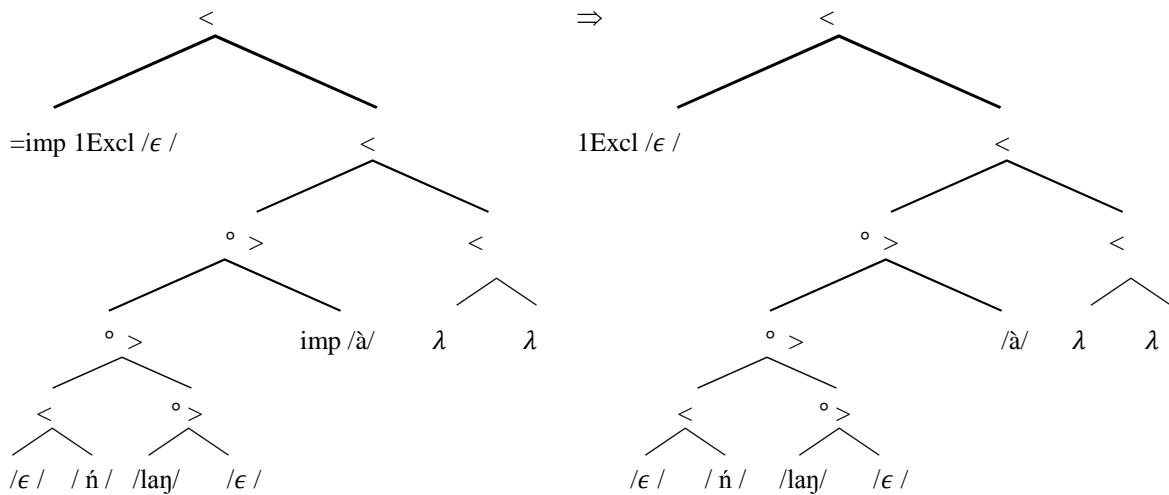
step 7 : merge (1EXCL= dir /ϵ / , 6)

The feature [dir] which encodes the illocutionary force operator directive (Han 1999:120), appears under C° in imperatives. Thus 1EXCL feature merges with its corresponding 1Excl moving the subtree whose head is 1Excl /ϵ / to the left of the [dir]. This gives the configuration mentioned in Figure 3.2..

```
          <                  ⇒                      <
  1EXCL= dir/ϵ /        <                    >              λ
             1EXCL /ϵ /        <         <           dir/ϵ /
                        ° >    <      /ϵ /        <
                    ° >  /à/ λ  λ            ° >       <
                 <   ° >                  ° >   /à/  λ   λ
            /ϵ / / ń / /laŋ/ /ϵ /      <    ° >
                                  /ϵ / / ń / /laŋ/ /ϵ /
```
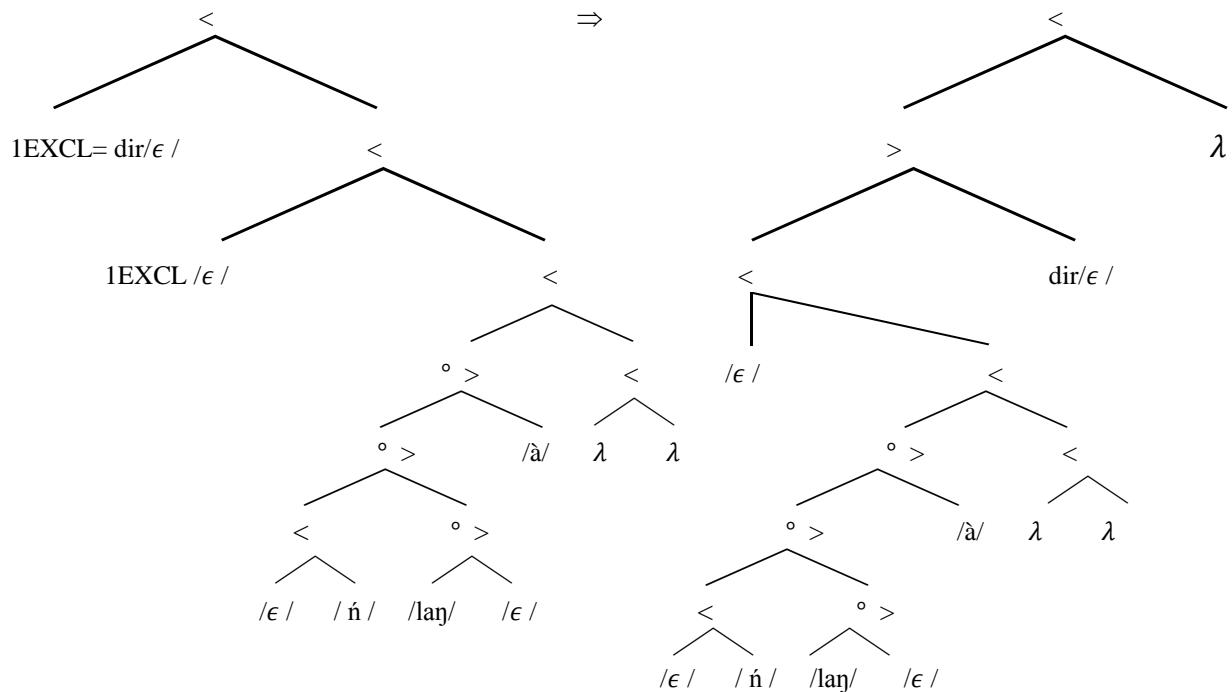
We have proposed an analysis of inclusive imperative clauses in which Agent is defined according to its person features. The specification of these features depends on the context of occurrence of IMPPRO. Depending on whether verbal prefix *n* appears with the enclitic *àn* or *àgà*, its first person inclusive will be minimal or augmented. These features are interpretable and non valued, they enter into correspondence with those of ENCL that are uninterpretable and valued through AGREE operation.

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