THE PRO-DROP PARAMETER IN DENYA

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Abstract

The purpose of this paper is to demonstrate that Denya is a pro-drop language and by this suggest that this might be the case with other noun class languages, especially Bantu. As a pro-drop language, Denya is different from Italian or Japanese/Chinese type languages because the property of free inversion in simple sentences often associated with the pro-drop parameter does not exist in the language. It is suggested that the property of free inversion be considered an independent parameter. As regards the null-subject property, it is argued that clitics exist in Denya and that they are the spelling out of AGR under INFL. A number of other phenomena associated with the pro drop parameter are said to exist in the language. This is a further support for considering Denya, a pro drop language.

1 Introduction

It has been observed (Perlmutter, 1971) that in some languages like Italian and Spanish, for example, there is the possibility of a missing subject in a finite declarative sentence/clause as shown in the following examples:

(1) Spanish

(a) Juan come
Juan eats

(b) Ø come
He eats

(2) Italian

(a) lui parti
he left

(b) Ø parti
He left

(3) Chinese (examples from Huang 1982)

(a) Zhangsan shuo [ta xia wu hui lai]
say he afternoon will come
Zhangsan said that he will come this afternoon

(b) Zhangsan shuo [e xia wu hui lai]
say afternoon will come.
Zhangsan said that he will come this afternoon

In each of the (b) examples in (1-3), the pronominal subject is 'missing' but in interpretation by speakers, it is understood to be there, covertly. Languages which allow for the missing subject have been described variously as pro-drop languages, subject-drop languages or null-subject languages. The variation which concerns whether a language can have null subjects or not is known as the pro-drop or null subject parameter. This phenomenon has been investigated extensively since Perlmutter noticed that languages that permit the subject position to be missing in simple sentences also fail to evidence the [that-t] effects. Chomsky (1981 : 240) notes that there is a 'clustering of properties' related to the pro-drop parameter and listed the following as the commonest:

(4) (a) Missing or null subject.
(b) Free inversion in simple sentences.
(c) Long wh-movement of subject.
(d) Empty resumptive pronouns in embedded clause.
(e) Apparent violations of the [that-t] effects.

In addition to the above, some other linguists, for example, Hyams (1986) and Pollock (1989) associate the following other phenomena with the pro-drop parameter:

(4) (f) Absence of expletive pronouns.
(g) Movement of a main verb i.e (V--->I).
(h) Inversion of an auxiliary to the front of a subject, i.e. (I---->C).

Non pro-drop languages like English or French, for example, are said to lack the above characteristics. Chomsky, (1981), however, suggests that only properties (4a) and (4b) truly characterize pro-drop languages because the other properties (4c) to (4e) are derivable from principles which allow for (4a) and (4b). Thus informally expressed, Chomsky's assumption of pro-drop languages is (5).

(5) Languages which allow null subjects also allow free inversion.

In other words, Chomsky is saying that the missing subject and the free inversion property both follow from a correct formulation of the null subject parameter. In Rizzi's (1982) analysis, free inversion is not treated as any sort of special parameter or a property of a parameter. Safir (1985) following Rizzi demonstrated that free inversion is independent of the missing subject property since there are languages that have free inversion without missing subjects (Trentino and Modenese, Italian dialects) and others that have missing subjects without inversion (Portuguese). Chao (1980) arguing on the same lines remarks that the properties of free inversion or the that-trace filter, do not cluster together in all pro-drop languages.

The goal of this paper is to illustrate that Denya is a pro-drop language, and by this suggest that this might be true of other noun-class languages,

especially Bantu.[1] However, the study makes clear that Denya is a pro-drop language different from either Italian type or Chinese type languages. This is because the property of free inversion in simple sentences commonly associated with the pro-drop parameter does not exist in Denya. Following Rizzi (1982) and Safir (1985), it is accepted that the property of 'free inversion' be considered an independent parameter. We make the hypothesis that subject clitics exist in Denya and are the spelling out of AGR under INFL (Chomsky 1982, 1986).

The presentation is organized as follows. In Section 2, we look at the missing subject property. Here the pro-drop property is explained in terms of the theory of 'morphological uniformity in inflectional paradigms' (Jaeggli and Safir 1989). The question of subject clitics is also treated here. In Section 3, there is a brief discussion of the property of inversion. Evidence is given to show that this phenomenon is non existent in the language. Section 4, deals with the phenomenon of extraction, whereas Section 5 looks at other properties. The last section, summarizes the main points of the paper and suggests areas of further research.

2 Missing subjects in Denya

2.1 The phenomenon. In languages like English and French, a null subject pronoun may be used only in the subject position of a non-tensed sentence/clause, and nowhere else. In other words, an empty pronoun may occur only as subject of an infinitival clause as in (6)a. below or as a gerundive clause as in (6)b.

(6) (a) John promised Paul [PRO to see Mercy]
(b) John preferred [PRO seeing Mercy]
(c) * John promised Paul that [e would see Mercy]

Example (6c) is ungrammatical because the empty category (EC) represented by e cannot be PRO since it is the subject of a tensed clause and governed by the AGR element of INFL.

Denya is like Italian or Spanish in that it allows a zero pronoun in the subject position of a tensed clause. Compare examples (1-3) with the following Denya ones.[2]

(7) (a) Eva a - wá meshu njuú
Eva AGR kill pf elephant yesterday
Eva killed an elephant yesterday

[1] Denya, also called Anyang (Westermann and Bryan 1970: 114), is an Ekoid Bantu language spoken by a speech community of approximately 10,000 people in the equatorial forest of the Republic of Cameroon.

[2] Abbreviations used in the text are: pf = perfective aspect; Impf = imperfective aspect; INCEP = inceptive aspect.

(b) ji a - wá meshu njuú
Him AGR kill pf elephant yesterday
He killed an elephant yesterday

(c) pro a - wá meshu njuú
AGR kill pf elephant yesterday
He killed an elephant yesterday

(d) * pro Ø - wá meshu njuú
kill pf elephant yesterday

(8) (a) EbwÓ á - fÉ Mamfe
them AGR go Mamfe
They went to Mamfe

(b) pro á - fÉ Mamfe
AGR go Mamfe
They went to Mamfe

(c) * pro Ø - fÉ Mamfe

Examples (7a) to (7c) and (8a, b) are all tensed clauses and grammatical. As is obvious, in (7a) and (7b), there are overt subjects, an R-expression in (7a) and an emphatic pronominal in (7b). In (7c) there is the empty pronominal [-a, +p], pro, pure pronominal. This is also true of (8b). Examples (7d) and (8c) are ungrammatical, a fact to be explained later.

The fact that a sentence with a missing subject like (7c) means the same as one with an overt emphatic pronoun like (7b) means that Denya must have a mechanism for recovering the 'missing' information. The question often asked by those working on ECs in general and pro-drop languages in particular is how the pro is determined in those languages. In other words, to show the way in which the person - number - gender features of the syntactic gap are determined. An important type of explanation that has been given to account for this phenomenon of null subjects and thus distinguish pro-drop languages from non-pro-drop ones, is based on the ideas of recoverability and the remark by Taraldsen (1978) that the possibility of pro-drop in a language often correlates with the existence of a 'rich' enough inflectional morphology, a rich system of verb/subject agreement. In fact, most recent studies reported in Jaeggli and Safir (1989) appear to confirm that it is the special status of the inflectional system of a language and its agreement markers that allows null subjects.

However, the question of 'rich' enough AGR system is a tricky one. In Languages like Italian and Spanish, where a tensed verb is inflected for number, person, tense and probably mood, every number/person combination has a different ending. In such languages, the inflectional paradigm distinguishes each form precisely and there is therefore no possibility of confusion. It has also been shown that a language like Chinese which does not show any inflection at all, allows pro-drop subjects. Jaeggli and Safir (1989) argue that because of the diversity of inflectional systems which license null subjects and the difficulties of stating a notion of 'richness' of AGR which would include all of them, the rich AGR idea should be abandoned. They instead propose the morphological uniformity hypothesis, to be examined in the light of Denya data

in this section. However, before this, let us look at the distribution of pro in Denya.

2.2 Distribution of pro in Denya. In addition to the examples (7) and (8) the following Denya sentences attest that pro occurs only in subject position of tensed clauses. Example (7c) is repeated here as (9a).

(9) (a) pro a - wá meshu njuú
AGR kill pf elephant yesterday
He killed an elephant yesterday

(b) * pro mán - wá meshu njuú
to kill elephant yesterday

(c) Eno a - jÓÓ [s nno [s Eva a - cwÓ njuu]]
Eno AGR say pf [that [Eva AGR come pf yesterday]]
Eno said that Eva came yesterday

(d) Eno a - jÓÓ [s nno [s ji a - cwÓ njuu]]
Eno AGR say pf [that [him AGR come pf yesterday]]
Eno said that he came yesterday

(e) pro a - jÓÓ [s nno [s pro a - cwÓ njuu]]
AGR say pf [that [pro AGR come pf yesterday]]
He said that he came yesterday

In the grammatical cases above (9a, c, d and e), pro occurs only in subject position of tensed clauses. Example (9b) is unacceptable because it is not a tensed sentence. We would expect PRO here and not pro. It is worth noting that pro occurs in subject position of both matrix and embedded clauses as illustrated in (9e).

It will be evident soon why pro cannot occur in object position. Consider example (10) below:

(10) * Eva a - wá pro njuú
Eva AGR kill pf pro yesterday

The ungrammaticality of (10) can very easily be explained. In the example above, pro occupies object position, the complement of the transitive verb kill. Pro, though usually governed, should not be governed by V as in the case of (10). An NP position governed by V must be case marked and therefore be lexical. Denya therefore confirms the prediction that pro is a property of subjects and of tensed clauses.

2.3 The Role of AGR in determining the content of pro in Denya

2.3.1 Verbal forms and structure. In Denya (see Abangma 1987) the constituents of a clause are ordered as in (11).

(11) S ---> NP INFL VP.

In Chomsky (1981) it is assumed that INFL is a collection of features

[±Tense, AGR]. If INFL is [+Tense], it will contain AGR, a node underlying subject-verb agreement and consisting of the features person, gender and number. It is important to note that in Denya, INFL contains an overt AGR node and is realized as a subject concord prefix (SCP). Each noun class has a SCP and Denya has about fourteen different noun classes. Tense in Denya is abstract tense, there being no morphologically realized tense.

Before turning to the role of AGR in determining the content of pro in the language, it might be necessary to sketch the structure of the verbal form (Vf) in Denya as illustrated by the verbal form in (12a) and (12b).

(12) (a) Eva a - wá meshu
Eva AGR kill pf elephant
Eva killed an elephant

(b) Eva a - wa - ne meshu
Eva AGR kill impf elephant
Eva kills/is killing an elephant

In (12), the verbal forms are a-wa and a-wane. The Vf a-wa consists of a verb stem (VS) wa which is preceded by the SCP, the AGR element. The perfective form of the verb is identical with the VS.

The Vf in (12b) has in addition a suffix -ne, a marker of imperfective aspect in the language. The perfective and imperfective aspects can be represented respectively as {-Ø} and {-ge}, where {-ge} represents a morpheme with several allomorphs.[3] The following schema represents a simplified/generalized verbal structure in the language.

(13) V ---> AGR + VS + Ø/{-ge}

2.3.2 Subject Concord Prefixes (SCP) as Subject Clitics (SCLs) in Denya. I wish to argue here that SCPs in Denya cannot be considered as structural or tonic pronominal subjects, (NP, S) because they have similar characteristics to those usually associated with clitics in Trentino and Fiorentino, two Italian dialects studied by Brandi and Cordin (1989). SCPs in Denya have the following characteristics:

[3] The morpheme {-ge} marks imperfective aspect in the language. In Abangma (1987) this form was called the non-past but the terminology has since been dropped to avoid connotations of tense, since Denya is a tenseless language. This morpheme has four different variants:
-le, -me/ne, -vv and -ge. On the basis of the type of suffix, the monosyllabic stems are subdivided into three:
(a) those containing -le;
(b) those containing -me/ne variants; and
(c) those containing the lengthening of the vowel.
Disyllabic stems invariably take an additional syllable, -ge and it is this suffix that has been selected as the morphemic representation of the imperfective aspect. (See Abangma 1987, Chapter 2.)

(i) **Unaccented forms.** SCPs are never used in the emphatic form. The subject position in Denya can only be occupied by a lexical noun, an emphatic pronominal or a null subject. This also explains why in the language, there are no expletive subject pronouns such as 'there' in English or 'il y a' in French since they are inherently unaccented. Compare (14a) and (14b).

(14) (a) Eva/ji/Ø a - na gepú
Eva/he/Ø AGR buy house
Eva bought a house

(b) * a a - na gepú

Example (14b) is ungrammatical because there is a doubling of the SCP/SCL.

The form of the pronominal subject given here is non-emphatic. As shown in (14a). the pronominal in subject position must be emphatic or null.

(ii) **Adjacency to V.** Like subject clitics in the Italian dialects cited above, SCP/SCLs in Denya must appear adjacent to a verb. In fact, although part of INFL, they are attached to V in the above examples by a hyphen, to show their close relationship.

(iii) **Insertion of lexical material.** No lexical material can separate the SCP from the verb, except certain infixes which express various aspectual meanings. Consider examples (15) and (16).

(15) (a) Eva a - na nkú njuú
Eva AGR buy shirt yesterday
Eva bought a shirt yesterday

(b) * Eva a - nkú - na njuú

(c) * Eva a - njuú - na nkú

Notice that in these examples, (15b) and (15c) are ungrammatical because a lexical word has been inserted between AGR and V.

(16) (a) Eva a - ma - ná nkú
Eva AGR REP buy shirt
Eva bought a shirt again

(b) Eva a - lé - ná nkú
Eva AGR INCEP buy shirt
Eva has started to buy a shirt

In (16), the infixes, *-ma* and *le* can be inserted because they are themselves incorporated into the V.

(iv) **Obligatoriness.** As shown in (14a), unlike tonic pronominal subjects that may or may not be realized phonetically, SCP/SCL must appear obligatorily.

In all the grammatical examples given above, we assume, therefore, that

SCPs/SCLs in Denya are the spelling out of AGR under INFL.

2.3.3 Local determination of the content of pro. Before proceeding further, compare the following Denya paradigm for the verb mánjOOge, 'to talk' in (17) with the Italian one given in (18).

(17)

(a)		(b)	
me n-jOOge	'I talk'	n-jOOge	(1st person singular)
wO O-jOOge	'you talk'	O-jOOge	(2nd person singular)
ji a-jOOge	's/he talks'	a-jOOge	(3rd person singular)
Ese de-jOOge	'we talk'	de-jOOge	(1st person plural)
Enyu de-jOOge	'you talk'	de-jOOge	(2nd person plural)
EbwÓ á-jOOge	'they talk'	á-jOOge	(3rd person plural)

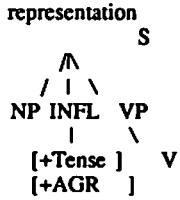
(18)

(a)		(b)	
io parlo	'I talk'	parlo	(1st person singular)
tu parli	'you talk'	parli	(2nd person singular)
lui parla	'he talks'	parla	(3rd person singular)
noi parlamo	'we talk'	parlamo	(1st person plural)
voi parlate	'you talk'	parlate	(2nd person plural)
loro parlano	'they talk'	parlano	(3rd person plural)

If one examines the two paradigms carefully, one notices that the (a) column differs from the (b) only in the simple fact that (a) contains nominative pronouns, phonetically realised while (b) contains pro or the missing subjects. In (17), the suffix (-ge) is a marker of imperfective aspect as illustrated above. The AGR elements are n-, a-, á-, O , de-, and de-. The AGR element in Denya is therefore a prefix. In Italian, as example (18) shows, AGR is realised as a suffix at s-structure by the following markers -o, -i, -a, amo, -ate, -ano.

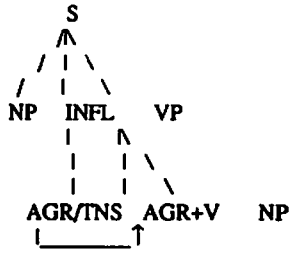
The point we need to make here is that although Denya and Italian appear superficially different as regards the s-structure realization of the AGR node, they are in reality the same, the function of AGR in determining the content of pro is the same. Chomsky (1982) notes that at d-structure, AGR is part of INFL governing the subject position and at s-structure it is possible for AGR to be attached to the main verb. In the case of examples (17) and (18) we can assume that AGR at s-structure is attached to the main verb as a prefix in Denya and as a suffix in Italian. This can be represented schematically as follows:

(19) D-structure representation

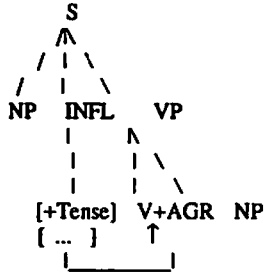


(20) S-structure representation

(a) Denya



(b) Italian

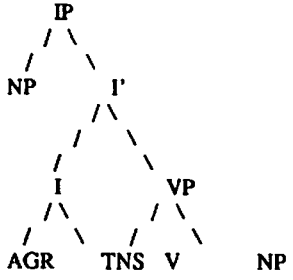


Their function in both languages is the same. In each of these languages, AGR is specified for number, gender and person, without which the content of the missing subject will not be determined. From this, it is clear that Denya and Italian are similar in that AGR licences pro.

If we turn to the IP analysis of Chomsky (1986) it is possible still to explain the relation between AGR element and the subject of IP.

Consider (21) below:

(21)



We assume that sentences are maximal projections of INFL.

In (21), the relation between the NP-subject and the AGR element of I is one of SPECIFIER-Head agreement. The role of AGR here is to case mark or identify the subject. Chomsky assumes that Spec-Head agreement is a form of feature sharing, sharing features of person, gender and number. Thus in Denya, as in other pro-drop languages, it is the sharing of these features of AGR with

pro that enables the speaker to identify the subject.

2.3.4 Morphological uniformity hypothesis and Denya.[4] In this section, it will be illustrated that the morphological uniformity theory of inflectional paradigms of Jaeggli and Safir (1989) adequately accounts for the pro-drop property. Jaeggli and Safir suggest that the crucial property that licenses null-subjects in tensed sentences is not the 'richness of AGR' but morphological uniformity in inflectional paradigms. Thus the null subject parameter can be stated as in (22).

(22) The Null Subject Parameter
Null subjects are permitted in all and only languages with morphologically uniform inflectional paradigms.

Morphological uniformity, in the theory, is defined as in (23).

(23) Morphological Uniformity
An inflectional paradigm P in a language L is morphologically uniform iff P has either only underived inflectional forms or only derived inflectional forms.

The terms derived and underived are defined as follows. Given a word W of category K, W is underived if it is morphologically non-distinct from the stem (or root) of W (i.e if it does not contain any affixes attached to W). A word W' is said to be derived if it is formed of a stem (or root) W plus an affix attached to W.

Jaeggli and Safir showed in their work that in the case of languages like Spanish, Irish, Italian, German and Japanese, the paradigms given to illustrate their point were all morphologically uniform. Every form consisted of a stem plus some affix. In the case of Irish, they observed that the affix signals person-number distinctions while in Japanese the affixes do not. What is crucial, therefore, in licensing null subjects in these languages is the fact that they are either morphologically complex or simple. Where there is a mixture of morphologically complex forms with bare stems in the same paradigm as in the case of English and French, there can be no licensing of null subjects.

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[4] The morphological uniformity hypothesis or principle (MUP) has been criticised by Hermon and Yoon (1989) for a number of reasons.

(a) Morphological uniformity cannot be sufficient to license pro-drop because there are languages like Swedish where there is morphological uniformity but no possibility of pro-drop.

(b) The notion of uniformity is said to be unclear. They question whether it is a paradigmatic notion or whether it is determined language by language. They feel that Jaeggli and Safir ought to have added the condition that uniformity is determined for a language as a whole and that if a certain paradigm in the language is non-uniform, the whole language counts as non-uniform.

They reject the MUP because they feel that it is not successful in predicting the distribution of pro crosslinguistically. Instead they propose what they call a theory of subject-predicate agreement.

This proposal appears to me to be correct for the licensing of null subjects in Denya and Bantu generally. In Denya, all tensed sentences, be they in perfective or imperfective aspect, realis or irrealis mood, and so on, can be said to be morphologically uniform, since all require the SCP. The markers of perfectivity or imperfectivity are different, so is the marker of conditional sentences illustrated in examples (24) and (25).

(24) VS = wá 'kill'

±Subject	Perfective + SCP + stem	Imperfective + SCP + stem + suffix
me (I)	n-wá (killed)	n-wane (kill/am killing)
wO (you sg)	O-wá (killed)	O-wane (kill/are killing)
ji (he/she)	a-wá (killed)	a-wane (kill/is killing)
Esé (we)	de-wá (killed)	de-wane (kill/are killing)
Enyú (you pl)	de-wá (killed)	de-wane (kill/are killing)
EbwÓ (they)	á-wá (killed)	á-wane (kill/are killing)

(25)

±Cond-itonal	±s	Conditional	Contrafactual
mbOge (if)	me (I)	n-wagé (I kill)	m-bÓ n-wá (had I killed)
	wO (you)	O-wagé (you...)	E-bÓ Ó-wá (had you...)
	ji (s/he)	a-wagé (he...)	á-bÓ á-wá (had he...)
	Esé (we)	de-wagé (we...)	dé-bÓ dé-wá (had we...)
	Enyú (you)	de-wagé (you...)	dé-bÓ dé-wá (had you...)
	EbwÓ (they)	á-wagé (they...)	á-bÓ á-wá (had they...)

In (24) as in (25), the paradigms we see are morphologically uniform. In (24) the perfective forms consist essentially of the SCP and the stem. There is no perfective form in the language which has either stem plus suffix only or some having the SCP and others not. Because of the uniformity of marking AGR in the language, AGR is able to license the subject (s). In (25) we have two other construction types - the conditional and the contra-factual. The regularity of the paradigms is equally striking. The markers of conditionality and contra-factuality are very obvious from the table. It is clear that in these constructions the subject position is shown to be optional since morphologically the paradigms are uniformly marked.

3 Free Inversion

Free inversion in simple sentences is one of the canonical properties associated with the null-subject parameter. In fact, Chomsky and some others assume the following generalisation, a stronger form of (5).

(26) A language L has free inversion iff L has missing subjects.

Several studies have shown that this is not necessarily true; see Chao (1980), Rizzi (1982), Safir (1985) to name a few only. The phenomenon of

free inversion is shown in the following Spanish and Italian sentences5 in (27) and (28) respectively.[5]

(27) (a) Juan contesto la pregunta
John answered the question

(b) EC contesto la pregunta Juan
answered the question John
John answered the question

(28) (a) Le brigate rosse hanno telefonato
the brigades red have called
The red brigades have called

(b) EC hanno telefonato le brigate rosse
have called the brigades red
The red brigades have called

In the above examples, it is clear that both Spanish and Italian display free subject inversion. It is assumed that free subject inversion optionally moves the NP subject to the right, adjoining it to VP; see Jaeggli (1982), Rizzi (1982), Torrego (1984). The inversion in these languages is said to be free because it is not dependent on any trigger (Riemsdijk and Williams, 1986 : 301). Notice that there is no change of meaning when the NP is moved to post-VP position.

Denya unlike Italian or Spanish and like English does not allow subjects to appear normally in post-VP position. What evidence is there that Denya does not allow subject inversion? Evidence can be found in the strict word order and the agreement phenomenon.

(i) **Strict word order.** In Abangma (1987) it is demonstrated that Denya is a strict SVO language and in 2.3.1 above, it was asserted that constituents of a clause in Denya are ordered as in (11) repeated as (29).

(29) S ----> NP INFL VP

Configurations such as (30) are outrightly ungrammatical in the language.

(30) (a) * INFL VP NP
(b) * VP INFL NP
(c) * VP NP INFL

To exemplify (30) consider the following sentences in (31).

(31) (a) Eva a - na geba
Eva INFL - buy bag
Eva bought a bag

[5] The Spanish example is taken from Aoun (1986 : 112) while the Italian one is from Riemsdijk & Williams (1986 : 300).

(b) * EC a - na geba Eva
INFL - buy bag Eva

(c) * na - a geba Eva
buy INFL bag Eva

(d) * na geba Eva a
buy bag Eva INFL

The examples in (31) illustrate that the strict word order in a clause must be observed, otherwise ungrammaticality results. This strict word order is due to the relation between S, INFL and VP, realized by the agreement phenomenon.

(ii) Agreement. The subject NP obligatorily triggers subject-verb agreement in the language and this is manifested in the form of SCPs as demonstrated earlier. The AGR element of INFL must be present in all tensed clauses. In examples (31b) to (31d) where the subject NP is in a post-VP position, such agreement is impossible.

4 Extraction

Two related phenomena will be rapidly treated here - the [that - trace] effects and long wh-movement.

4.1 The *[that - t] filter. Earlier studies have shown that in languages like English, a sentence which contains an overt complementizer that is followed by a trace is ungrammatical, whereas a similar sentence with a non-overt complementizer is not. Thus, in the examples which follow, (32b) violates the so-called *[that-t] filter while (32a) does not.

(32) (a) Who does John think s [t2 s [t1 left]]

(b) * Who does John think s [t2 that s [t1 left]]

The that-t effects are accounted for under the assumption that when COMP contains an element that binds the EC in subject position then that element in COMP counts as a proper governor for the subject EC. If however that appears in an example such as (32b) above, then the element in COMP no longer c-commands the subject (Kayne 1984) because COMP branches, and proper government fails.

In (32)b, it is usually assumed that the trace in S (t1) is not properly governed because the complementizer, that, intervenes between the trace in COMP (t2) and the subject trace (t1), thus blocking the c - command relationship for government. As already mentioned, in pro-drop languages, sentences of type (32b) are grammatical while those of the type (32a) are ungrammatical. In this respect Denya is similar to other pro-drop languages. Consider examples (33a) and (33b) for Italian and (34a) and (34b) for Denya.

(33) (a) Chi$_i$ credi s [t2 che s [t1$_i$ verra]]
Who do you believe [that [will come]]
Who do you believe will come?

(b) * Chi credi s [t2 s [t1 verra]]
Who do you believe will come
Who do you believe will come?

(34) (a) waá Eva á - fErege s[t2 nno s[t1 á - fE]]
who Eva AGR think that AGR go
.* Who does Eva think that (he) went?

(b) * waá Eva á - fErege s[t2 s[t1 á - fE]]
who Eva AGR think AGR go
Who does Eva think left?

In these examples, (34a) is grammatical while (34b) is not. How do we explain this? Many explanations have been attempted but the suggestions of Riemsdijk and Williams (1986) seems to me to be adequate. In (34a) the complementizer nno 'that' does not block government of the subject trace, t1 by the trace in comp, t2 because t1 does not require to be properly governed by t2 . In pro-drop languages, and in particular, in the case of Denya, we assume that AGR can c-command the t1 and can properly govern it. In this case there is no need to account for the presence of the lexical complementizer. All that we may say is that languages parameterize on the basis of AGR, those in which AGR can act as a proper governor and those in which it can not. Pro-drop languages are those in which AGR can function as a proper governor.

4.2 Long wh-movement of subject. The effects of long wh-movement are similar to those discussed about the that-trace filter. By long wh-movement of subject, we mean the movement/extraction of a wh-phrase from the subject position across at least one clause boundary/bounding node. It has been noted (Perlmutter 1971, Chomsky 1981) that a sentence such as (35a) is grammatical while (35b) is not.

(35) (a) Who do you think saw Bill?

(b) * Who do you think that saw Bill?

The s-structure corresponding to (35) is as shown in (36).

(36) (a) who do you think s[t saw Bill]

(b) * who do you think s[that s[t saw Bill]]

In (36a), *who* is moved from the subject of the embedded clause to COMP of the matrix clause via COMP of the embedded clause. Here the subjacency principle is not violated. In (36b), *who* moves from subject position of s, not to COMP of S but to COMP of the matrix clause. It cannot move to COMP of its clause bacause this is already filled by that. This is a case of long wh-movement. Thus the ungrammaticality of (36b) can be explained by the

fact that extraction of a wh- phrase from the subject position next to a lexically filled COMP is illicit in English. Cases of 'short' movement are usually well-formed.

In null subject languages, long wh- movement from the nominative position is possible. Denya is therefore similar to languages like Italian in this respect. Thus sentences corresponding to (36b) are predicted to be acceptable while those corresponding to (36a) are not, as (37a) and (37b) illustrate.

(37) (a) waá á - fErege s [nno s [t á - gE Eva]]
who AGR think s [that s [t AGR see Eva]]
* Who thinks that he saw Eva?

(b) * waá á - fErege s [t á - gE Eva]
who AGR think s [t AGR see Eva]
Who thinks he saw Eva?

In Denya, what constitutes a bounding node is not s but S'. As such, it is possible to have long wh- movement from inside S to COMP of the matrix sentence.

5 Other properties

In this section, a few remarks will be made concerning two other properties of the pro-drop parameter; the absence of expletive pronouns, and empty resumptive pronouns in embedded clauses.

5.1 Expletives. Expletive pronouns such as 'there' in English, 'il y a' in French, for example, have been extensively studied and found to exist in a number of languages distributed over different language families. See Clark (1978) for an overview based on more than 30 languages. In the case of English and French, the expletive element must be overtly realized. In some other languages like Chamorro, Chinese, Hebrew, Italian, Papiamentu, Spanish, to name a few (Reuland and ter Meulen, 1987), the expletive pronouns must or may be empty. In fact, it has been claimed that in a language like Italian and other pro-drop languages, there is simply no word for such an expletive as there. Consider the following Italian example taken from Manzini (1989).

(38) (a) There comes a man

(b) Arriva un uomo

Denya is similar to Italian in that it does not have a corresponding word for the expletive as example (39) shows.

(39) (gE) muú a cwOO
(look/see) person AGR come
There comes a man

To interpret (39) as (38a), there must be some pragmatic context, for example, pointing of the finger by the speaker or drawing attention of the

listener by the use of the verb gE 'look/see' followed by the rest of the sentence.

What ought to be noted is that Denya differs from Italian in that in (38b) the expletive can be said to be empty, as a result of post-posing the subject NP. Thus the LF representation of (38b) is as follows:

(40) pro_i [VP arriva un $uomo_i$]

Thus pro can be an expletive in Italian. In Denya, there is no empty expletive pro. This is understandable since, as shown earlier, Denya does not permit subject inversion.

5.2 Empty Resumptive pronouns. The term resumptive pronoun will be used in the sense of Sells (1984) and defined in (41).

(41) A pronoun that is interpreted as a bound variable whose antecedent is an operator is a resumptive pronoun.

For our purpose the term 'operator' should be assigned to any NP occupying an A- position which takes scope, specifically quantified NPs and wh- phrases. Consider the following Hebrew example taken from Sells (1984: 34).

(42) kol gever se Rina xosevet alav
every man that Rina thinks about-him
every man that Rina thinks about

Here the operator is kol, 'every' and the resumptive pronoun is alav, 'him'.

Resumptive pronouns occur predominantly in relative clauses; Chomsky (1982). In Denya resumptive pronouns occur obligatorily in the following environments:

(i) Determiner of NP:

(43) ndé muú wÓ Oka á ntE *-/wuu
what person you AGR know father -/his
who do you know his father

In (43) the determiner of the NP, ntE wuu cannot be omitted. Hence the asterisk in the gap.

(ii) Member of a coordinate NP:

(44) waá wO Ó-gEné Eva ne *-/ji
who you AGR see Eva with -/him
Who do you see along with Eva?

(iii) Object of a preposition:

(45) waá Eva á gbóo ne -/ji
who Eva AGR die with -/him
Who is Eva in love with?

In Denya, resumptive pronouns are not obligatory in constructions where they are subject of a tensed clause introduced by a complementizer. Consider the following examples:

(46) waá wE Ó kElege nno ji/Ø á ácwÓ
who you AGR want that he/Ø AGR come
who do you want that should come

In example (46), we see that the resumptive pronoun ji, is operator bound and that its occurrence alternates with its non occurrence. It is a characteristic of pro-drop languages, that the missing subject of tensed sentences are sometimes available as resumptive pronouns. Denya is thus similar to other pro-drop languages in this repect.

6 Summary and conclusion

The main concern in this paper has been to show that Denya allows null subjects. It has been shown that the SCP can be considered a subject clitic which spells out AGR under INFL and bears the same features as the NP subject. If this is true of Denya, it is my guess that it may also be true of other noun-class languages, especially Bantu. This is a possible area for further research. The study gave support to the morphological uniformity theory of inflectional paradigms advanced by Jaeggli and Safir as a requirement for licensing pro.

A number of other phenomena associated with the pro drop parameter were also investigated. Some of them were shown to be relevant to Denya, others were shown not to be. The property of inversion, for example, was noted as being absent. What this suggests is that the other phenomena associated with the null subject parameter need not necessarily be considered inalienable properties of the parameter. This, of course is not the first suggestion of the kind as the relevant references above made clear. The significance of the remark here is that Denya is one other language where the claim made in (26) does not hold.

This paper has been exploratory in nature and did not address itself to proposing theories to account for the null subject parameter. However, further research in this domain in Denya may throw more light on this phenomenon.

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