# Subject Agreement in Amazigh

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**ABSTRACT:** The paper, conducted within the framework of the Minimalist Program, considers the nature and content of the subject agreement relation. The discussions are based on data from Amazigh, in particular the Tashelhit variety spoken in the southwest of Morocco. In the suggested analysis, I show that Amazigh exhibits two types of subject agreement, namely subject-verb agreement and operator-bound agreement. In subject-verb agreement constructions, agreement on the verb is rich. I argue that in such constructions agreement is not itself a functional head. Rather, agreement is a relation between a head and its specifier in which features of the head and specifier must match. As such, the verb agrees with its subject in its base position; no movement of the verb or the subject is required for the verb to agree with its subject in terms of phifeatures. In operator-bound agreement constructions, the verb shows no agreement with the extracted subject. More specifically, a discontinuous affix of invariable form / i \_\_ n / always appears on the verb. I argue that in local extraction of the subject in wh-questions, relatives and clefts, the invariable affix on the verb is the expression of an agreement relation holding between a verb and an operator with a [+Focus] feature in the specifier of the complementizer phrase.

**KEYWORDS:** Subject-verb agreement, operator-bound agreement, Focus, Amazigh, Minimalist Program.

# **1** INTRODUCTION

This paper considers the syntax of subject agreement within the framework of the Minimalist Program [1], [2]. The discussions are based on data from Amazigh, in particular the Tashelhit variety spoken in the southwest of Morocco. I will show that Amazigh manifests two types of agreement, namely subject-verb agreement and operator-bound agreement. The paper is constructed as follows. Section 1 presents some general properties of Amazigh clause structure, with particular reference to those that are relevant for our discussion of agreement. More specifically, I explore the different feature specifications which characterize the elements that head the functional projections in order to make predictions about head movement. Section 2 addresses the issue of subject agreement in Amazigh. I deal with two types of agreement: subject-verb agreement and operator-bound agreement.

# 2 ASPECTS OF AMAZIGH CLAUSE STRUCTURE

In Amazigh, the verb (V) consists of the stem and an agreement affix. Following [1], [2], I assume that V is lexically generated with its associated inflectional properties. The functional categories, such as tense (T) and aspect (Asp), have their own features to which the features encoded in V must correspond to. The function of these features is to license the morphological properties of V taken from the lexicon. The two main complementizers 'ad' (that) and 'is' (whether) are inserted under the head complementizer (C) above T. The clause structure adopted here is represented in (1) (cf. [4], [5], [6] among others):

(1) [CP [TP [AspP [vP [VP...]]]]]

In what follows, I will focus on the different feature specifications which characterize the elements that head the functional projections in order to make predictions about head movement.

#### 2.1 ASPECT

Amazigh expresses a binary aspectual distinction, perfective and imperfective [3], [4]. This is illustrated in (2) and (3), respectively:



When the verb is in the perfective, it carries the morphological feature of the perfective stem, (2). When it is in the imperfective, it carries the morphological feature of the imperfective stem and is preceded by the aspectual morpheme 'ar', (3). Following [3] and [4], I assume that there is a category Asp, immediately above V, with a categorial feature [+V] and a syntactic feature [+/-Perf(ective)], as part of the syntactic representation of sentences like (2) and (3). The AspP is headed by a null morpheme in the context of sentences with perfective interpretation, and by 'ar' in the context of sentences with imperfective interpretation.

Concerning V-movement, there is clear evidence that it takes place overtly. For example, if the postverbal subject in Amazigh, as in (4) and (5) below, is the specifier of VP([7], [8]), as predicted by the VP-internal subject hypothesis, then this lends support to the claim that V has overtly moved over the subject to Asp:

- (4) a. i mmudda ħmad.he-travel+perf Hmad"Hmad travelled"
  - b. \*ħmad i mmudda.Hmad he-travel+perf
- (5) a. ar i tt mmuddu ħmad.
   Asp he imperf+travel Hmad
   "Hmad is travelling."

- b. ar ħmad i tt mmuddu.
  - Asp Hmad he- imperf+ travel

It should be pointed out that the intended reading for (4b) to be ungrammatical is not the one where 'hmad' is a topic position with a pause setting it off from the common part.

#### 2.2 TENSE

In Amazigh, two general classes of tense are distinguished: future and non-future [3], [4]. This opposition results from the observed fact that future is morphologically realized by the verbal particle 'rad' and past and present are not, as illustrated in (6) and (7):

- (6) rad i -mmuddu ħmad.Fut he-travel+A(orist) Hmad"Hmad will travel."
- (7) a. i -mmudda ħmad.

he-travel+Perf Hmad

"Hmad travelled."

b. ar i -t-mmuddu ħmad.

Asp he-travel+Imperf Hmad

"Hmad travels/ is travelling."

Consideration of the sentences in (6) and (7) reveals that only in (6) is tense morphologically realized. Both (7a) and (7b) are not overtly inflected for temporal values, which legitimizes the [+/-Fut(ure)] opposition in Amazigh, where [+Fut] corresponds to a morphological realization of tense and [-Fut] to its absence [3]. The abstract tense in (7) is syntactically active in that it licenses temporal adverbs:

(8) a. i -mmudda hmad idgam.

he-travel+Perf Hmad yesterday

"Hmad travelled yesterday."

b. ar i -t-mmuddu ħmad ɣila.

Asp he- Imperf +travel Hmad now

"Hmad is travelling now."

(8a) and (8b) are grammatical though there is no overt T to license the adverbs. Therefore, it is natural to conclude that there is an abstract T that licenses the adverbs in these sentences.

When T is specified for the feature [+Fut], 'rad' is inserted under T. As for V movement to T, it applies in the covert syntax. This is supported by the fact that V and 'rad' can be separated by negative adverbs and clitics:

(9) a. rad ddaħ i- mmuddu.

Fut again he-travel +A

"He will travel again."

- b. rad tn zr -ħ.
  - Fut -them see+A -I

"I will see them."

In (7a), where T is not morphologically realised, V is allowed to occupy T via a stepwise raising operation. I take this to mean that the feature [-Fut] is strong, and so necessitates explicit checking. The two stages of the derivation are given in (10):



As for (7b), since I am claiming that the feature [-Fut] is strong, this requires that feature checking take place in the overt syntax. As argued in [3], the verb 'i-ttmuddu', though a potential checker, is not attracted to T by the main features it can attract, namely [+V] and [-Fut]. 'Ar', being of a verbal nature, blocks the potential landing site of the main verb due to the Minimal Link Condition (MLC) [2]. 'Ar' is closer to T, and it can enter into a checking relation with T. Thus, the MLC prohibits T from attracting V. For this reason, I argue that overt V- movement is restricted to Asp, while 'ar' moves from Asp to T to check the categorial feature [+V].

#### 2.3 COMPLEMENTIZER

I assume that C is a cover term for a richer and more articulate structure that includes topic, focus, modality, and question as developed in [9], [10], [11]. The reasoning underlying a 'split C hypothesis' is that it allows the resolution of a variety of problems regarding word order and scope. The C material is accommodated as Specs and heads of labelled projections. These heads and Specs are related either by agreement in features or by means of the satisfaction of a criterion (in the sense of [12]).

Following [4], I propose that the two main Cs 'ad' and 'is' are endowed with the feature [+C] in the lexicon, which fact entails that they are inserted under the head Comp. Features such as [+/-WH], [+Foc] are chosen as the relevant Cs enter the numeration.

So far, I have presented some aspects of Amazigh clause structure that will be assumed in my analysis. In the next section, I return to the main topic of this paper and discuss the issue of agreement.

# **3** AGREEMENT

In this section, I discuss the nature and content of the subject agreement relation in Amazigh. Specifically, I deal with two types of agreement: subject-verb agreement and operator-bound agreement. It is argued that the former expresses an agreement relation between a verb and a subject in terms of phi-features, whereas the latter expresses an agreement relation between a verb and an operator with a [+Foc] feature.

#### 3.1 SUBJECT-VERB AGREEMENT

In Amazigh, the agreement on the verb is rich, i.e. it seems to be sufficient without the overt subject, as illustrated in (11):

(11) a. fti -ħ. b. n - fta.
leave+Perf - I we -leave+Perf
'I left.'
'We left.'

c.	fta	- n.	d.	i - fta.
	leave+Perf-they			he - leave+Perf
	'They left.'			'He left.'

In (11,) each of the verbs bears distinct affixes that express different values for person, number, and gender. The presence of these affixes is obligatory with all word orders. In other words, Amazigh systematically uses agreement with the subject to mark the subject/object asymmetry. This is only normal, since Amazigh does not have morphologically realized Case.

There is a difference of opinion as to the status of the subject markers in the literature on Amazigh. Reference [13], for example, treats them as subject clitics (arguments generated in A-positions). Others, e.g. [14], [15] treat them as Agr elements. I will briefly evaluate these approaches to see which of the two is most consistent with the facts. Let us consider the first approach.

If subject markers function as arguments, two consequences will follow:

(i) Subject markers will be treated as pronouns, inserted in the argument slot of the VP by generalized transformation. The resulting structure is extended with functional projections. In order to check its nominative case, the pronoun must move to [Spec, TP]. Two options are possible: overt movement or covert movement, depending on the strength of the [D] feature of T. If the D- feature of T is strong, feature checking must take place before Spell-Out. The structure of (12a), for example, would be spelled out as in (12b), which is not the situation. If it is weak, the pronoun does not have to get its features checked by moving to [Spec, TP] before Spell-Out. This would lead to the representation in (13), giving rise to an unattested order. In Amazigh, [V] feature of T is strong, except in constructions with future tense, where it has been shown that V must covertly move to T:

(12) a. fti - ħ.

> leave+perf - I "I left"

b.



t

The drawback of this hypothesis is that it presupposes a [Spec, VP] which is always full, whether the post-verbal lexical NP is present or not. In other words, pro is no longer needed since the subject is always expressed by the subject markers. This puts into question the classification of Amazigh among pro-drop languages [3].

(ii) It would be unclear why Amazigh allows doubling but not dislocation, as is clear from the fact that (14a) is ungrammatical with the intonational break, (14b):

he - leave+perf Hmad

"Hmad left."

b. \*i - fta , ħmad.

he - leave+perf Hmad

If the NP Hmad does not originate in a dislocated position, it must be inserted in the argument position. This casts serious doubt on the adequacy of the subject approach to subject markers.

The second approach to be discussed involves treating the subject markers as agreement elements. Most of the analyses within the Principles and Parameters framework posit an agreement projection AgrP [16], [17], [1]. The head Agr is coïndexed with pro or the lexical subject in order for the phi-features of Agr and the subject to be completely matched. However, Agr differs from functional categories in several crucial ways. First, functional categories are arguably justified by their semantic interpretation: T, for example, bears a feature [+finite], C bears a mood feature (e.g. declarative, interrogative). As for Agr, it has no interface interpretation [2]. Second, whereas T, Asp, and Neg occur only once in any given clause, Agr occurs in conjunction with some constituent and shares phi-features with that constituent [18]. Third, while functional categories occupy a fixed position, agreement has the property that it may spread into every head in its domain:

(15) i - kkattin ar y - aqra.
he - be +perf-then Asp he- study+imperf
"He was studying/ he used to study."

In (15), we see subject agreement manifesting itself on the auxiliary 'i-kkattin' as well as on the main verb 'y-aqra'. If we were to treat Agr as a head, we would need to posit a subject agreement phrase corresponding to Aux and another one corresponding to the main verb.

These considerations suggest that agreement is not itself a functional head. Rather, agreement is a relation between a head and its specifier in which features of the head and specifier must match. V agrees with its subject in its base position. This is in line with [19]'s analysis of subject agreement in Moroccan Arabic (MA). The subject -pro or lexical - is the Spec of the head V [7]. No movement of the verb or the subject is required for the verb to agree with its subject. Thus, verb-agreement takes place as in the configuration in (16):



(16)

#### 3.2 OPERATOR-BOUND AGREEMENT

In local extraction of the subject in Amazigh wh-questions, relatives and clefts, the verb shows no agreement, as revealed by a comparaison of the following examples with the strings shown in (17):

- (17) a. ħmad ad i fta n.Hmad that he leave+Perf"It is Hmad that left."
  - b. ma ad i fta n ?
     who that he leave + Perf
     "Who left?"
  - c. argaz Ili y ftan.the-man who he- leave+ Perf"The man who left..."

The constructions in (17a-c) where extraction takes place out of the subject position are characterized by the appearance of an /i  $\_$  n/ form: a discontinuous affix of invariable form which always appears on V. This type of agreement has the following properties:

- (i) It is invariable in form (it is never affected by T or Asp).
- (ii) It is derived by movement of the subject.
- (iii) It is restricted to constructions with ad ([+WH] or [+Foc]) and Ili.

Following [4], we can say that the /i \_\_n / affix is the expression of an agreement relation holding between the verb and an operator in [Spec, CP]. If I take (17a) as an example, the subject moves from [Spec,VP] to [Spec, CP]. The movement is triggered by the checking of the feature [+Foc] on the functional head C within a Spec-head configuration. This yields the structure illustrated in (18):



In (18), the subject NP finad is generated in its base position [Spec,VP], and then moves to [Spec,TP] in order to check the case feature. It subsequently moves to [Spec,CP] where it enters into a Spec-head relation with C that bears the [+Foc] feature. For the full interpretation of the sentence, though, the agreement feature on the verb phonologically realized as /i\_\_\_ n / requires to be checked by the operator. For this purpose, V moves overtly to Asp°, thus checking the feature [+Perf]. The complex [V, Asp] moves to T next, checking the feature [-Fut]. From there, V-to-C movement applies in covert syntax, a movement process triggered by the checking of the feature [+Foc], which I consider to be generated in C. Consequently, V ends up in a Spec-head relation with an operator in an A'- position, i.e. (Spec, CP).

To sum up, Amazigh manifests two types of agreement: subject-verb agreement and operator-bound agreement. The former expresses an agreement relation between two constituents in terms of phi-features, whereas the latter expresses an agreement relation between a verb and an operator with a [+Foc] feature.

# 4 CONCLUSION

In this paper, I offered an analysis for agreement in Amazigh. A proper analysis of agreement required a prior understanding of some aspects of Amazigh clause structure. Thus, the first goal of the paper was to explore the morphology of the verbal stems in Amazigh. I showed that the morphological differences between the verbal stems reflects the different feature specifications that characterize the elements that head the functional projections. Turning to agreement, I first discussed some existing proposals that have been put forth in the literature concerning the syntactic analysis of agreement in Amazigh. I then considered the nature and content of the two types of subject agreement: subject-verb agreement and operator-bound agreement. I argued that the former expresses an agreement relation between a verb and a subject in terms of phi-features, whereas the latter expresses an agreement relation between a verb and an operator with a [+Foc] feature.

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