On the status of subject and object markers in Kabyle: New evidence[*]

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SUMMARY

This paper investigates morphemes which co-index arguments on the Kabyle (Berber) verb. The question addressed here is: are they true agreement markers or an instances of clitic doubling? Different proposals are found in the Berber literature: Guerssel (1995) and Achab (2003) argue that they are instance of clitic doubling. However, Ouhalla (2005) argues that subject markers are true agreement while object markers are clitics. Building on some of the most recent work to distinguish between agreement and clitic doubling (Kramer 2014, Preminger 2009, Nevins 2011), I bring new evidence to bear on these morphemes in the aim of clarifying their status. Diagnostics such as the aspect-invariance of object markers contrary to subject markers, the presence of a default form with subject markers, and the Featural Coarseness of object markers indicate that in Kabyle subject markers are true agreement while object markers are instances of clitic doubling.

RÉSUMÉ

Cet article examine le statut des morphèmes sujet et objet qui s'attachent au verbe en langue kabyle (berbère). La question posée ici est la suivante: s'agit-il d'un véritable accord ou d'un redoublement de clitique? Dans la littérature berbère, le statut de ces marqueurs est ambigu. Si certains auteurs considèrent ces marqueurs comme une instance de redoublement de clitique (Achab 2003, Guerssel 1995), d'autres leur réservent une analyse mixte où les marqueurs sujet reflètent un véritable accord et les marqueurs objet sont un cas de redoublement de clitique. En se basant sur les diagnostics récents proposés pour d'autres langues, tels que l'invariabilité des pronoms clitiques (Nevins, 2011), la présence d'une forme par défaut avec le véritable accord (Preminger, 2014) et la granularité de l'accord (Preminger, 2009), je propose d'analyser les marqueurs sujet en tant que véritable accord et les marqueurs objet en tant que redoublement de clitique.

1 INTRODUCTION

The aim of this paper is the status of the subject and the object morphemes (henceforth subject markers and object markers) that attach to verbs in Kabyle (Berber, Afroasiatic). These markers co-vary with the phi-features (person, number, and gender) of the arguments as in (1) where *-t* is the object marker and reflects the third person masculine singular direct object *wɣrum* 'bread', and *-y* is a subject marker which reflects the third person masculine singular subject *wqcic* 'boy.'

(1)   Y-ečča-t   wqcic wɣrum-nni.
      3MS.S-eat.PERF-3MS.O boy   bread-DÉM
      'The boy ate it, the bread.'

The key question addressed here is the nature of these markers: are they true agreement, or an instance of clitic doubling? This question is not particular to Kabyle, but rather is raised for any language that has morphemes attached to the verb that reflect phi-features of the argument. In principle, these two phenomena are distinct: agreement is the realization of phi-features on *v* (Chomsky 2000, 2001), whereas clitic doubling is often analyzed as the movement of a D head in order to attach to a verb (Torrego 1988, Uriagereka 1995). But in practice they can be difficult to distinguish. This difficulty also exists in Berber languages where there is no common agreement on the nature of subject and object markers. Moreover, most previous work that exists in this area does not propose a detailed theoretical analysis. Based on new evidence that comes from applying tests from recent work on other languages to Kabyle, this article shows that the subject marker is true verbal agreement, while the object marker is a doubled clitic. To show that, this paper is organized as follows: in section 2, I introduce the theoretical distinction between clitic doubling and agreement. In section 3, I discuss previous Berber (Kabyle) research on subject and object markers. I present the proposals of Guerssel (1995) and Achab (2003) that treat both markers as clitics. Then, I show a mixed proposal where subject markers are analyzed as true agreement and object markers as clitic doubling. It is in the section 4 that I examine subject and object markers by using diagnostics proposed in the recent work for other languages. In doing so, I argue that subject markers are in line with the behavior of true agreement and that object markers are more in line with the behavior of a doubled clitic. Finally, section 5 is devoted to the conclusion.

2 CLITIC DOUBLING AND AGREEMENT

Agreement is conventionally analyzed as the realization of phi-features on a functional head (Chomsky 2000, 2001). Pronominal clitics are taken to be D heads which undergo movement to adjoin to the verbal complex (Torrego 1988; Uriagereka 1995; Nevins 2011). But this is not always straightforward because both agreement and pronominal clitics indicate phi-features (person, number, and gender) and both of them are part of the verbal complex. Furthermore, recent theoretical work takes the abstract operation of *Agree* to underlie both phenomena. Moreover, in Woolford (2003), as noted by Kramer (2012), the boundaries between them can be somewhat blurry because the word agreement is used as a cover term for both. Nevertheless, there are canonical properties that distinguish markers classified as agreement or clitic doubling: agreement is usually obligatory while

clitic doubling is usually optional. However, a range of recent work has shown that, concretely, these qualities do not always help to classify them, since there are contrary cases (Nevins, 2011b). As a result, work on a wide range of languages (Baker 2008, Nevins 2011a) have established new criteria for better classifying subject and object markers. The resulting proposition is that, unlike the clitics, the agreement is sensitive to other features of the functional head like time (Nevins, 2011a), mood and aspect (Kramer, 2014). In addition, Preminger (2009, 2014) proposes to look at the granularity of the agreement and the coarseness of the clitics. In other words, the agreement is established with only a few features, while the clitics's features are copied in their entirety and thus form an indivisible whole. It is on these new diagnostics that we rely to demonstrate that subject markers are a morphological realization of the morphosyntactic agreement in Kabyle and that object markers are a case of a doubled clitic.

3   PREVIOUS WORK ON THE BERBER SUBJECT AND OBJECT MARKERS

In the following section, I present previous work on Berber subject and object markers. There is little work on the status of subject and object markers in Kabyle, or for Berber languages in general. Most of the time, *agreement* is used as a cover term and the status of these markers is not always the central goal. Moreover, the proposals for the classification of subject markers are contradictory. Indeed, they may be perceived either as clitics or as a true agreement. On the one hand, Guerssel (1995) and Achab (2003) analyze subject and object markers as clitics. On the other hand are works that mention the possibility that object markers are clitics while subject markers are true verbal agreement (Ouhalla 2005, Oualli 2008).

3.1   UNIFORM ANALYSIS OF SUBJECT AND OBJECT MARKERS

3.1.1   THE OPTIONAL OR OBLIGATORY CHARACTER OF MARKERS

Since Galand (1969), it has been known that subject markers are obligatory and object markers are optional in Berber. This is shown in (2):

(2)   a.   *(Y)-čča   wqcic aɣrum.
             3MS.S-eat.PERF boy   bread
             'The boy ate the bread.'
        b.   Y-ečča-(t)   wqcic wɣrum-nni.
             3MS.S-eat.PERF-3MS.O boy   bread-DÉM
             'The boy ate it, that bread.'

In (2a), the subject marker *y-* is not optional; otherwise, the sentence will be agrammatical. This is why, since Galand (1969), this marker has been considered to be the real subject of the sentence, while the lexical subject *aqcic* 'boy' is treated as a anaphoric referential expression. In (2b), the object marker *-t*, which is coindexed with the lexical object *wɣrum* 'bread', is optional. Its presence or absence does not affect the grammaticality of the sentence. It has been shown cross-linguistically that clitics are optional unlike agreement markers, which are obligatory. This leads authors such as

Galand (1969) and Chaker (1983) to consider the object markers as clitics and the subject markers as agreement. We will return to these data after evaluating the existing theoretical proposals.

3.1.2 EVIDENCE FROM SYNTACTIC EXTRACTION OUT OF CLITIC-DOUBLED CONSTRUCTIONS

The proposals of Guerssel (1995) and Achab (2003) appear among the few works that propose a theoretical analysis of the nature of subject and object markers in Berber. I begin with the Guerssel (1995) account. In his proposal, Guerssel argues that the subject and the object markers are both a case of clitic doubling. In his analysis, he relies on the phenomenon of syntactic extraction out of clitic-doubled constructions. It has been shown that syntactic extraction of subject and object arguments out of clitic-doubled constructions is impossible, while it is possible out of non-clitic-doubled constructions. This phenomenon is observed in several languages for both subjects and objects. For example, Roberge (1986) shows it to be the case for object extractions in Romanian, a variety of Spanish, and colloquial French. Guerssel (1995) presents data showing it to be the case for subject extraction in colloquial French and Italian dialects like those of Trentino and Fiorentin. Using the same diagnostic, Guerssel shows in (3) that the syntactic extraction of the object out of a doubled-clitic construction in Kabyle is allowed by contrast with clitic-doubled constructions which disallow extraction as shown in (4). In this latter example, the object *wemcic* 'cat' doubles the clitic *-t*.

(3) a. Wala-ɣ   amcic.
         see.PERF-1MS.S cat
         'I saw the cat.'
     b. Acu   ay wala-ɣ?
         What c   see.PERF-1S.S
         'What did I see?'

(4) a. Wala-ɣ-t   wemcic.
         see.PERF-1MS.S-3MS.O cat
         'I saw [him] the cat.'
     b. *Acu   ay-t wala-ɣ?
         What c   see.PERF-1S.S
         'What did I see?'

Extending the analysis to subjects, Guerssel shows that the subjects resist extraction as shown in (5b), arguing that this is because they are also instances of clitic doubling.

(5) a. T-ssnw   tmettut.
         3FS.S-cook.PERF woman
         'The woman cooked.'
     b. *W   ay t-ssnw?
         who c   3FS.S-cook.PERF
         'Who cooked?'

(6)   a.   T-ssnw   tmettut.
               3FS.S-cook.PERF woman
               'The woman cooked.'
        b.   W   ay y-ssnw-n?
               who c   3FS.S-cook.PART
               'Who cooked?'

However, Guerssel notes that the extraction is possible as shown in (6b) by using a neutral form of
the verb (*y-V-n*), which is traditionally called a participle and obtained by suffixing the morpheme
n to the 3SG.M form of the verb. This form is neutral in the sense that it has default phi-features:
neutral to person, gender and number. In addition, Guerssel considers this form to be a discontinuous
morpheme to which he attributes the status of default subject clitic.

3.1.3   EVIDENCE FROM CONSTRUCT STATE NOUNS

Achab (2003) has also analyzed the subject and object markers of Kabyle as clitics. He provides
evidence from construct state nouns. He looks at the difference between two nominal forms tradi-
tionally called *construct state* and *free state*, and he argues that subject and object morphemes are
base-generated as head clitics. We now look at this argument in more detail. A noun (a lexical
subject, for example) is in a so-called construct state when it appears post-verbally as in (7a), and
in free state when it occurs pre-verbally as in (7b):

(7)   a.   Y-ečča   w-qcic.
               3MS.S-eat.PERF boy
               'The boy has eaten.'
        b.   A-qcic y-ečča.
               boy   3MS.S-eat.PERF
               'The boy has eaten.'

For Achab, the construct state noun *w-qcic* in (8) is a bare NP and the free state noun *a-qcic* in (9)
is a full DP.

(8)   DP [D Ø[NP w-qcic]].

(9)   DP [D a-[NP qcic]].

Achab (2001, 2005, 2012) considers the morpheme *w* to be "a residue of a gender system indicating
the masculine and that its current role is to morphologically strengthen the state built in the mas-
culine" (2012:48). So for the construct state nouns to be expressed syntactically, they have to be a
DP. Achab (2003) argues that the head D corresponds to the subject or object morpheme which is
base-generated on the construct state noun before being incorporated into the verb. For Achab, the
argument sustaining his analysis is that the "construct state noun has to be adjacent to its head D for
it to be selected as its complement" (2012:114). In addition, Achab provides a second argument to

support the idea that subject makers are clitics. This is the optional character of the subject marker in the participial form in some varieties of Kabyle as illustrated in (10):

(10) a. win ur i-čči-n   (ara)
          who NEG 3MS.S-eat.PART (not)
          'The one who has not eaten'
      b. win ur n-čči   (ara)
          who NEG PART-eat (not)
          'The one who has not eaten'

In (10), Achab shows the two possible ways of expressing the negation with a participial form: the standard way, as in (10a), and the alternative form, like in (10b) where the morpheme *n* appears as a prefix in the place of the morpheme *i*. For Achab, the possibility of the subject marker's disappearence or optionality suggests that this morpheme is a clitic.

3.2 MIXED ANALYSIS OF SUBJECT AND OBJECT MARKERS

3.2.1 CLITIC PLACEMENT

In this section, I present the view of Ouhalla (2005a,b) who argues that subject markers are not clitics, in contrast with object markers. He provides evidence from the placement or the position where clitics occur. He shows that Berber clitics can occur in either of two positions shown in (11) which is illustrated by an example from Kabyle. In (11a), the verb *ečč* 'eat' can occur with the object marker *-t*. In (11b), the object marker does not appear with the verb but rather with the functional head which is the temporal particle *ad* expressed as *a* here :

(11) a. **V=CL**
          Y-čča-t.
          3MS.S-eat.PERF-3MS.O
          'He ate it'.
      b. **F=CL V**
          A-t   y-ečč.
          FUT-3MS.O 3MS.S-eat.AOR
          'He will eat it'.
          (Adapted from Ouhalla, 2005:607)

Ouhalla notes that clitics are easily identifiable in Berber on distributional grounds. As illustrated in (11), clitics can be postverbal or preverbal. They can be attached into the verb (11a) or into a functional category F (11b) which can be Tense (T), Negation (Neg), or Complementizer (C). In addition, Ouhalla mentions that Berber clitics generally appear to the right of their host, which is noted in (11) by the use of the symbol =. He also points out that the context (11a) where V is not preceded by an overt functional category, is not subject to variation and that there is no known Berber variety where clitics appear before the verb. Based on this fact, he formulates the following rule which Berber shares with a group of languages called SECOND-POSITION CLITIC LANGUAGES:

(12)   A clitic cannot be the 'first word' in the clause that includes it. (2005a:608)

For Ouhalla, this rule is motivated by prosodic considerations, based on the idea that clitic elements are not prosodic constituents. So in this view, object markers are clitics and subject markers are not. The later ones are verbal inflection for the fact they appear in first word position.

However, it must be emphasized that Ouhalla (2005b:657-658) recognizes the fact that the debate on the status of pre-stem subject markers in the literature on Berber is "a reflection of a general recognition that it has an independent statut and is only loosely connected to the verb." This is why he considers the subject markers to be "the result of a historical process that has led to merger of what originally were two separate categories, a subject pronoun corresponding to the pre-stem inflection and the verb with its own inflection." However, Ouhalla admits that, in modern Berber, pre-stem inflection can't receive the same treatment for two reasons. First, it does not show the number distinction that is a property of pronouns. Second, pre-stem inflection co-occurs with independent subjects or lexical subject as we see in most of the examples presented here.

To summarise, we note that, despite the hypothesis of the diachronic evolution of verbal inflection, Ouhalla (2005) argues that in modern Berber, the subject marker is to be analyzed as a verbal agreement because of the rule in (12).

4   New evidence

Now that we have seen, however briefly, the competing analyses of subject and object markers in Kabyle, the following subsections present important new data for the theoretical categorization of these morphemes from a range of diagnostics that have been applied to other languages, but not Berber, until now.

4.1   Morphological Invariance

An agreement morpheme is theorized to be the realization of phi-features on a functional head. The realization of those phi-features may vary depending on other features that the functional head itself has. Nevins (2011) proposes the diagnostic *Tense-Invariance*, in which it is argued that the agreement marker varies according to the other features of the functional head, while the clitic marker remain invariable to the same cross-linguistically. He makes his case with respect to features of tense, as the name of the diagnostic would suggest. Kramer (2012, 2014), following Nevins (2011), shows that in Amharic (another afroasiatic language), variance can occur in the aspectual forms rather than the tense forms since the verb is marked by aspectual rather than temporal contrast. In order to show how this aspectual invariance applies to Kabyle, we must begin with a presentation of its subject- and object-marking paradigms.

The subject marker paradigm in Kabyle is given in the table below, where we can see that markers can be either prefixed, as in the third masculine singular, feminine singular, and plural forms, or suffixed, as in the first person and third person plural forms, or circumfixed, as in the second person:

Table 1: Subject Marker Paradigm.

Personne	Singulier	Pluriel
1ˢᵗ person	-ɣ	n-
2ⁿᵈ person masc.	t-...-ḍ	t-...-m
2ⁿᵈ person fem.	t-...-ḍ	t-...-mt
3ʳᵈ person masc.	i- ou y-	-n
3ʳᵈ person fem.	t-	-nt

The object marker paradigm is as in Table 2. The markers are either suffixed or prefixed but never circumfixed.

Table 2: Object Marker Paradigm.

Personne	Singulier	Pluriel
1ˢᵗ person	-yi	-ɣ, -aɣ, -naɣ, -anaɣ
2ⁿᵈ person masc.	-ik	-iken
2ⁿᵈ person fem.	-ikem	-ikent
3ʳᵈ person masc.	-it	-iten
3ʳᵈ person fem.	-itt	-itent

Moving on to questions of aspect, we must distinguish between lexical and grammatical aspect, both of which are important in Kabyle. In terms of lexical aspect, the grammar is sensitive to the distinction between stative verbs, called 'verbs of quality' or 'quality verbs' in the Berber literature, and all other verbs (activities, accomplishments, achievements), which are called 'ordinary verbs' in the Berber literature. I follow the traditional literature in the naming of these categories in the remainder of this paper. Kabyle also makes grammatical aspect distinctions, especially between the imperfective and the perfective forms of each type of verb, which is relevant to our argument. With this in mind, we move to a demonstration that object markers do not formally vary depending on grammatical aspect (perfective or imperfective), henceforth 'aspect' but that subject markers do.

I begin with the object markers. We see that the forms are identical regardless of whether the verb they are attached to is perfective or imperfective. I reproduce the Table 2 in the Table 3 below to show this invariability. This is a straightforward argument that the object marker behaves like a doubled clitic.

Table 3: Object Markers by type of grammatical aspect.

	Perfective / Imperfective	
Person	Singular	Plural
1ˢᵗ person	-yi	-ɣ, -aɣ, -naɣ, -anaɣ
2ⁿᵈ person masc.	-ik	-iken
2ⁿᵈ person fem.	-ikem	-ikent
3ʳᵈ person masc.	-it	-iten
3ʳᵈ person fem.	-itt	-itent

At first glance, the subject markers could also give the impression of being clitics as they do not seem to vary for aspect, as we see in Table 4 where there is no change observed.

Table 4: Subject Markers by type of grammatical aspect.

	Perfectif / Imperfectif	
Person	Singular	Plural
1ˢᵗ person	-ɣ	n-
2ⁿᵈ person masc.	t-...-ḍ	t-...-m
2ⁿᵈ person fem.	t-...-ḍ	t-...-mt
3ʳᵈ person masc.	i- ou y-	-n
3ʳᵈ person fem.	t-	-nt

However, when we control for the lexical aspect (category) of the verb, a more thorough analysis emerges and contradicts the simpler pattern. Indeed, a change is observed in the subject marker paradigm for verbs of quality. In (13) and (14), I give examples of perfectives and imperfectives for both quality and ordinary verb types in Kabyle.

(13) a. Y-uzzel.
          3MS.S-run.PERF
          'He ran.'
      b. Y-ttazzal.
          3MS.S-run.IMPERF
          'He is raning.'

(14) a. Mellul.
          be   white.3MS.S.PERF
          'It / she is white.'

  b. Y-ttimlul.
    3MS.S-be white.IMPERF
    'It / she becomes white.'

In (13), the verb *azzel* 'to run' is an ordinary verb, and in (14), the verb *imlul* 'be white' expresses a state: the quality of being white. Now we are ready to turn to the changes observed in the subject marker paradigm illustrated in the Table 5 below:

Table 5: Subject marker paradigm by aspect for verbs of quality.

Person	Imperfective		Perfective	
	Singular	Plural	Singular	Plural
1st person	-ɣ	n-	-ɣ	-it
2nd person masc.	t-... -ḍ	t-...-m	-ḍ	-it
2nd person fem.	t-...-ḍ	t-...-mt	-ḍ	-it
3rd person masc.	y- ou i-	-n	Ø	-it
3rd person fem.	t-	-nt	-t	-it

  In the imperfective forms of verbs of quality, there is no change observed, and we find the same paradigm that is observed in the ordinary verbs. Nevertheless, a "new" paradigm is observed in the perfective forms of the verbs of quality. Not only is there no prefixed marker in the singular, but we also find a single marker *-it* for all plural forms regardless of gender or number.

  There are two important things to note about this paradigm. First, the paradigm is not attested in all Berber languages. It is absent in Tuareg, for example, where the subject marker paradigm of the ordinary verb is attested with quality verbs (Galand, 2013). Secondly, there is a clear resemblance between the *-it* marker of the plural forms and the third person singular object marker. It is possible that this resemblance is not accidental because in a variety of Kabyle, *At Ziyan*, it is the object marker paradigm, previously presented, that appears on verbs of quality (Allaoua, 1993). Achab (2012) analyzes these markers as object markers, probably for this reason. In (15), some examples of *At Ziyan* are presented in which the object marker paradigm is used with verbs of quality like *Izwiɣ* 'Be red'.

(15) a. Zeggaɣ-iyi.
    be   red-1S.O.PERF
    'I am red.'
  b. Zeggaɣ-ik.
    be   red-2MS.O.PERF
    'You are red.'
  c. Zeggaɣ-it.
    be   red-3MS.O.PERF
    'He is red.'

As mentioned by Chaker (1995), the subject marker paradigm for the perfective form of quality verbs is increasingly endangered such that the subject or object markers used with other verbs replace those of quality verbs presented in Table 5.

For our analysis, analyzing these morphemes as object markers or subject markers does not change our conclusion.[2]. This to say that, in either case, changes are still observed within the category of quality verbs in their perfective form. This suggests that, unlike object markers, subject markers behave like agreement, as they are variable, unlike true clitics.

4.2 MORPHOLOGICAL PROPERTIES

4.2.1 DISTRIBUTION

As mentioned above, it is commonly the case cross-linguistically that the distribution of clitics differs from the distribution of true agreement. What is observed is that agreement occurs in a fixed position and usually attaches to the verbal stem, while clitics can occur in different positions. Looking at this from a theory-specific perspective, we say that they can be attracted by other funcional heads. Recall that in the Berber literature, Ouhalla (2005) and Ouali (2008), among others, have pointed out that subject markers have a fixed position in the verb (they are always attached to the verb), and object markers have a variable position in the sentence (they can occur to the left or to the right if attracted by a functional head, as shown in (11) and repeated here in (16)).

(16)   a.   V=CL

       b.   F=CL V
            Ouhalla (2005:607)

I show in this section that in Kabyle, subject markers behave like agreement and object markers behave like clitics with respect to morphological position. In (17), the different positions where these markers can occur are given. Object markers can occur with the verb like in (17a) or with a functional head: T (Tense) in (17b), Neg (Negation) in (17c), and C (complimentizer) in (17d):

(17)   a.   Y-čča-t.
            3MS.S-eat-3MS.O.PERF
            'He ate it.'
       b.   Azzeka   a-t   y-krez   wḥriq-nni.
            Tomorrow FUT-3MS.O 3MS.S-plow.AOR champ-DEM
            'Tomorrow, he will plow it, that field.'
       c.   Ur-as-t   y-fka   ara.
            NEG-DAT-ACC 3MS.S-give NEG
            'He did not give it to him.'
       d.   Taqcict ay-t   y-zra-n t-ruḥ.
            girl   C-3MS.O see.part 3FS.S-go.PERF
            'The girl who saw him is gone.'

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[2] Further precision around this issue would be highly desireable, but I leave this question for further work.

There is an additional difference between clitic doubling and agreement with respect to distribution. With clitic doubling, in a case where there are two internal argumsents, both can be doubled simultaneously. In the case of agreement, Kramer (2014) makes the following argument: "since there is one *v* per clause, an agreement account predicts only one object marker per clause, even if there are multiple internal arguments". She notes that this makes a robust criterion for categorization since it is the best-known property of clitic doubling, having been observed in all Romance language clitic doubling as well as in Greek (Kramer 2014:5 citing Philippaki-Warburton et al. 2004:969). An example from Greek is shown in (18) where both the accusative Theme *to vivlio* 'the book' and the genitive Goal *tu Jani* 'John' are doubled by clitics:

(18)   tu   to   edhosa to vivlio   tu jani
           3MS.GEN 3MS.ACC gave.1S the book.ACC the John.GEN
           'I gave the book to John.'

In Kabyle, object markers behave like clitic doubling in this way. In a clause with one verb and two internal arguments, both can be doubled simultaneously. This is shown in (19) where both the direct object *tktuvt* 'book' and the indirect object *Ales* are doubled.

(19)   y-fka-as-tt   wqcic tktuvt-nni i   Ales.
           3MS.S-give.PERF-3MS.GEN-3MS.ACC boy   book-DEM PREP Ales
           'He gave [it] [to him] the book to Ales.'

This data additionally fulfills the morphonological criterion proposed by Zwicky and Pullum (1983) as shown in (20):[3]

(20)   Criterion F: Clitics can attach to material already containing clitics, but affixes cannot.

In (19), the subject marker is closer to the verbal stem that becomes closed for affixation. Such closure accounts for why no clitic can be added before or after it. The direct object clitic, on the other hand, is added after the indirect object marker. Ouhalla (2005), citing Dell and Elmedlaoui (1989) points out that, in Berber, it is possible to find a cluster of up to five different clitics in a single clause.[4]

(21)   Y-fka-as-tt-id   tktuvt-nni Yidir i   Ales.
           3MS.S-give.PERF-3MS.GEN-3MS.ACC-DIR Yidir   book- DEM PREP Ales
           'Yidir gave the book to Ales.'

In Kabyle, as shown in (21), we find more than two clitics: *-as* is the indirect object clitic, *-tt* is the direct object clitic, and *-id* is the directional clitic (translatable as 'toward the speaker' in this example). This last kind of clitic specifies the directionality of motion (proximitive or distant)

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[3] As a side note, Nevins (2011) rejects this morphophonological criteria and instead proposes morphological tense invariance. In section 4.1, I showed that in Kabyle, the object marker is a clitic according to Nevins' criterion as well.

[4] As my goal here is to check the rule in (20), I will not present here all of the possible cases. To support my proposal, I will only show an example in Kabyle with three clitics and I invite the reader to consult Ouhalla (2005) and Dell and Elmedlaoui (1989) for more details of clauses with four and five.

for a small class of motion verbs which are not specified for directionality of motion. The use of directional clitics *-n* and *-d* in Kabyle help us to distinguish between two meanings of the verb *ruh*'go': *ruh-n* distant from the speaker and *ruh-d* toward the speaker.

This yet again indicates strongly that the direct and indirect object markers are morphological clitics and that the subject marker is agreement.

Finally, I would like to go back to the criterion of optionality which I discussed previously. This criterion has been widely used for distinguishing clitics and agreement in the way stated above. As I mentioned, this criterion is also used in the Berber literature in order to conclude that subject markers are agreement based on their obligatory nature and that object markers are clitic doubling based on their optionality. As laid out by Nevins (2011), however, this type of evidence considered on its own is not robust, as there are known counter-examples to both of its parts. This is one of the reasons that I continue to present further diagnostics in other subsections.

4.3   FEATURAL COARSENESS AND GRANULARITY

Another way to distinguish between clitic doubling and agreement is proposed by Preminger (2014:50-51) who provides evidence from pronominalization. He argues that "if clitic doubling is a kind of pronominalization, it is expected to behave like any other form of pronominalization in treating the phi-feature set of the pronominalized noun phrase as an atomic unit, which must be copied as a whole. It should therefore be impossible, under clitic doubling, to tease apart different subparts of the phi-feature set and copy some but not all of the phi-features of the noun phrase onto the clitic." This diagnostic thus proposes that clitic doubling is featurally coarse, while agreement is granular. In others words, if clitic doubling is a kind of pronominalization, we do not expect to find a clitic which reflects only some of the phi-features, as pronouns package them together. In this section, I argue that in Kabyle and in some other varieties of Berber, subject markers behave like agreement, and object markers behave like clitic doubling. I discuss below two pieces of evidence: one is from Kabyle, and the other is from other varieties of Berber: Tashlhit, Ouargli and Tahaggart, among others. I begin with Kabyle. In section 4.1, I have shown that subject markers vary according to their perfectivity within the category of (stative) quality verbs. I reproduce Table 5 in Table 6 below:

Table 6: Subject marker paradigm by aspect for verbs of quality.

	Imperfective		Perfective	
Person	Singular	Plural	Singular	Plural
1st person	-ɣ	n-	-ɣ	-it
2nd person masc.	t-... -ḍ	t-...-m	-ḍ	-it
2nd person fem.	t-...-ḍ	t-...-mt	-ḍ	-it
3rd person masc.	y- ou i-	-n	Ø	-it
3rd person fem.	t-	-nt	-t	-it

In the perfective form, there is no prefixed marker in any of the singular forms, though there

is variation in their suffixed markers. The prefixes and the variety of suffixes go away all together in the perfective plural forms. Only a single suffixed marker *-it* is attested for all plural forms regardless of gender. This marker is also what we see with the 3rd person masculin in the object marker paradigm, as mentioned previously. Thus, based partially on the view of Ouhalla (2005), I propose a featural analysis wherein the perfective paradigm of quality verbs serve as an example of featural granularity. Recall that Ouhalla (2005) argues that the pre-stem usually includes the features associated with pronouns minus [NUMBER] as shown in (22), where gender is represented in the [CLASS] feature. He proposes that the post-stem includes [PERSON, CLASS] and [NUMBER].

(22)   [NUMBER, PERSON, CLASS] > [PERSON, CLASS] (Ouhalla, 2005: 659)

So the verbal features, including the pre-stem and the post-stem features, are shown in (23):

(23)   [PERSON, CLASS]-V-[NUMBER, PERSON, CLASS] (Adapted from Ouhalla, 2005: 659)

Ouhalla points out that, as we see in (23), the verbal inflection includes a significant amount of homophony, inconsistency, and redundancy. Now, return to the distinctions observed within the perfective for verbs of quality. Two important remarks need to be made for my argument to go through. First, what we see in the singular is that the feature [CLASS] disappears in the pre-stem inflection in that no distinction is made between the marking of different genders. However, at first glance, there seems to be an exception in the third person feminine in which *-t* is known to express the feminine in Berber. But, as Ouhalla (2005) points out, *t-/-t* encodes feminine gender or person. Following Ouhalla, I assume that *-t* does not express gender but rather the person in this form. This may initially seem arbitrary, but the idea is that some imperfective marking was lost in perfective marking, and we see that *t-* appears as a prefix in the imperfective paradigm for quality verbs. Thus, when it was lost along with the masuline marker, we are left with no gender distinction in the third person singular of the perfective paradigm. Second, I propose that what happens in the plural forms of quality verbs in the perfective is that gender and number are not represented, leaving only the person feature. While person also does not seem to be marked, we need at least one verbal feature for these to be verbal markers, but it cannot be gender or number, and as Ouhalla argues, [PERSON] is a verbal feature, leaving us this possibility.

We now move to the he second piece of evidence that subject markers are granular while object markers are coarse. It emerges from others varieties of Berber in the context of participial verb forms where we find a plural feature in Tashlhit and Tamazight, both spoken in Morocco. In In these varieties, the participial form *y-V-n* comes in another form, namely *y-V-n-in* where the morpheme *-in* refers to the plural. This is shown in example (24) which is from Tashlhit where *-in* is obligatory.

(24)   irgazn nna ffegh-n-*(in)
         men   C   left-PART-PL
         'The men who left.'
         (Ouhalla 2005 citing Chafiq 1990 : 123)

In some others varieties like Ouargli, Tahaggart, Ghadamès, Touareg, Tamahaq, Tawellemmet and Tamashek, gender and number remain without the plural.[5]

Now that we have seen both arguments, we can sum up as follows: for subject markers on quality verbs in the perfective, gender and number are not copied for the plural forms, and gender is not copied for third person singular forms. In addition, for subject marking in participial forms in Tashlhit and Tamazigh, neither gender nor person are copied, and in many other Berber varieties, person is not copied. In all of these cases, the object marking remains constant, copying all information. From this, we conclude that subject markers behave like true verbal agreement. As for object markers, there is no context in which phi-features are targeted as a sub-part. Indeed, they always occur as an indivisible whole. In this way, they behave exactly like clitics.

4.4 DEFAULT AGREEMENT

In section 3.1, I presented the view of Guerssel (1995) that there exists in Berber a neutral subject clitic expressed by a discontinuous morpheme *y-n* in the participial form of the verb. Essentially, since for him there is no agreement extraction out of subject constructions, he assumes that the discontinuous morpheme *y-n* is neutral in the sense that it has a default value for phi-features. In this section, I revisit this conclusion by providing a new analysis based on a new argument. But first, we give more details about this form. It has been shown that it arises in three constructions, namely in questions where the subject is interrogated as in (25), in relative clauses where it is the subject position which is relativized as in (26), and in cleft sentences where it is the subject position that is clefted as in (27):

Subject wh-questions

(25)   Anwa ay y-krez-n?
        who   C 3MS.S-plow.PART
        'Who plowed?'

Subject relative clauses

(26)   Tamttut ay y-krez-n   aḥriq-a   t-ruḥ.
        woman C 3MS.S-plow.PART field-DÉM 3FS.S-go.PERF
        'The woman who cooked this bread is gone.'

Subject clefts

(27)   Tilawin-ayi ay y-krez-n   aḥriq-a.
        women-DÉM C 3MS.S-plow.PART field-DÉM
        'It is these women who plowed this field.'

In Guerssel's proposal, as neither subject nor object markers may be extracted, we could easily be forgiven for thinking that Kabyle treats them as the same kind of morpheme. But in fact, the results

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[5] This is discussed in Baier (2016) who analyzes this fact as partial impoverishment, in contrast with total impoverishment, as in Kabyle and Tarifit.

of extraction are quite different for subject and object markers. In object extraction, the marker (clitic) must be absent altogether, while in subject extraction, it is not that the marker (agreement) goes away, it is that we find a default agreement morpheme *-y* and a participial form of the verb *-n*. Elsewhere, Ouhalla (1993) points out that the discontinuous morpheme *y-v-n* found in the context of anti-agreement, is a general default agreement form. This is because the participle is invariant and contains the prefix *-y*, usually found in the third person singular masculin form. But Ouhalla does not offer any explanation for the suffix *-n*. I will not delve further in the presentation of the analysis of anti-agreement in Kabyle here as it is not the focus of this work and merits its own article.

I instead analyze the participial form as default agreement which contains a default agreement marker *-y* and a participial morpheme *-n*. This is also the proposal of Baier (2016:15) who argues that Kabyle has a system of morphological impoverishment where "the prefix *-y* is a morphological default that is inserted when there are no phi-features to be spelled out. The suffix *-n* spells out the WH-feature that triggers conditions impoverishment." In other words, Baier (2016:16-17) argues that, by vocabulary insertion, the prefix *-y* is inserted in extraction contexts because the impoverishment deletes all phi-features from the Agr (agreement) head. Then, the suffix *-n* is a spell-out of [WH] in the context of Asp (an aspectual head). Also, following Baier (2016), I assume that *-n* is the aspectual marker. Baier (2016: 17) argues that "the evidence of this analysis of *-n* comes from the fact that the aspectual form of the verb conditions whether appears or not the suffixe appears. Specifically, the aorist participle lacks *-n* while still containing *-i*. On the other hand, *-n* is found in perfective and imperfective participles (Drouin 1996)."

4.5   PERSON-CONSTRAINT-CASE

In this section, based on the *Person-Constraint-Case* (PCC) which is observed with clitics, I show how direct and indirect objects are instances of clitic doubling. According to Preminger (2014), the failure of the relationship of agreement brings about PCC, also called the constraint *me-lui. It is a constraint on combinations of the person feature between the direct object and the indirect object (Perlmutter 1971, Kayne 1975, Bonet 1995, Anagnostopoulou 2003, Béjar and Rezac 2003; Adger and Harbour 2007). This phenomenon consists of a competition between these arguments to be realized as a clitic in the same position (Nevins, 2011b:175). Thus, the restrictions that we observe in general are as follows: when there is an indirect object clitic that occurs in the first or second person, the direct object clitic must be in the third person for the sentence to be grammatical. And when the indirect object clitic is in the first or second person and the direct object clitic is in the first or second person, the sentence is ungrammatical.

Lets consider the examples in (28) given in Kabyle and constructed like the examples of Bonet (1991):

(28)   a.   A-yi-t-id   cegε-en.
             FUT-3MS.DAT-3MS.ACC-DIR send-3PL.S
             'They will send it to me.'
       b.   a-k-t-id   cegε-en.
             FUT-2S.DAT-3MS.ACC-DIR send-3PL.S
             'They will send it to you.'

    c. *A-k-yi-d　　　　　　　　　sekn-en.
        FUT-2S.DAT-1S.ACC-DIR show-3PL.S
        'They will present me to you.'

    d. *A-k-s-id　　　　　　　　　cegɛen.
        FUT-2S.DAT-2S.ACC-DIR send-3PL.S
        'They will send you to him.'

In Kabyle, the same restrictions are observed between direct and indirect object markers. Indeed, the examples in (28) show that the direct object marker must be in the third person when there is an indirect object clitic that occurs in the first or second person.

    In summary, we have seen that Kabyle shows the same combinatorial restrictions of direct and indirect object markers that have been observed in other languages' clitics. This seems to provide further evidence for the analysis of these markers as clitics.

5　CONCLUSION

In this article, we have brought together descriptive and early theoretical work on Kabyle with the contemporary theoretical literature on clitics and agreement in other languages to marshall a range of new evidence that Kabyle subject markers are agreement, while object markers are clitics. In arguing that object markers are clitics, I have shown that they match cross-linguistic clitic-doubling patterns, that they do not show morphological variation for grammatical aspect, that they are governed by the Person-Constraint-Case, and that they are coarse in the sence that the features of the corresponding DP are copied in their entirety, since they form an indivisible whole. In arguing that Kabyle subject markers are agreement, I have shown that they vary based on aspect for stative/quality verbs, that it is possible to have a default agreement marker in the participial form (which, following Baier (2016), contains a default subject marker *-y*), and that they have the property of granularity because it is possible to target separate features, not only in the perfect form of quality verbs, but also in the participial forms of closely-related languages. Given the numerous criteria according to which Kabyle object markers align with clitics as well as those according to which its subject markers align with agreement, we hope to have further clarified the categorization of these morphemes and added to the literature of this rich and richly understudied language.

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