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## The pronoun in Rif Berber (from Senhaja to Iznasen)

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### Abstract

The research presented in this article deals with the complex pronominal system of Rif Berber (North, Northwest, and Northeast Morocco), considered from a perspective that integrates qualitative (synchrony and diachrony) and quantitative (algorithmic) viewpoints. It includes both independent and clitic pronouns. The findings of this research account for the crucial role that play combinatorial and distributional properties (morphosyntax) along with geolinguistic diffusion in the diversification and evolution of the variants attested.

**Key words:** Rif Berber (including Senhaja and Iznasen), pronoun, qualitative and quantitative classification, language continuum

### 1 Introduction

Viewed from both a qualitative and quantitative perspective, this data-driven study examines the pronominal system of Rif Berber (aka *Tarifit* or *Tmaziyt n Rrif* or the Rif Amazigh language), which forms a language continuum that stretches over North, Northwest, and Northeast Morocco. This continuum includes the varieties of Senhaja Srair (westernmost varieties) and of Iznasen (easternmost varieties) and is composed of five stable core aggregates, which are the following ones: Western Rif Berber (WRB), West-Central Rif Berber (WCRB), Central Rif Berber (CRB), East-Central Rif Berber (ECRB), and Eastern Rif Berber (ERB); see Figure 1 and corresponding Table 1. These aggregates were obtained through algorithmic classifications and verified by means of structural (synchronic and diachronic) classifications, which are discussed at length in Lafkioui (2020) and which corroborate the qualitative findings and classifications provided in the *Atlas linguistique des variétés berbères du Rif* (Lafkioui 2007)<sup>1</sup>, the ALR henceforth, as well as the quantitative classifications presented in Lafkioui (2008; 2018). Apart from the ALR, the present research is also based on a large, cross-level, and representative corpus of data obtained from numerous linguistic, sociolinguistic, and ethnographic fieldwork investigations in the area since 1992. I coin the corpus “cross-level” as it involves the diverse linguistic levels of phonetics, phonology, morphology, syntax, and lexicon. Data mining studies on this cross-level corpus made it possible to accurately identify the principal aggregate discriminators of the Rif Berber continuum, which include the pronominal system (see Lafkioui 2020 for details). As a matter of fact the whole pronominal system is of significant relevance for the emergence of the aggregates of the Rif Berber continuum. It is the most important discriminator on the morphosyntactic level, with the IO clitics at the top of the list. As the DO and IO clitics are extensively dealt with in Lafkioui (2020), a special focus in this article is put on the other pronouns in Rif Berber.

This study builds further on the quantitative methods and results obtained from the algorithmic classifications of Rif Berber’s lexis discussed in Lafkioui (2008; 2018), which give evidence for the validity of the Levenshtein distance calculating method, especially when the phone strings are tokenised in pair-wise alignments, which is applied in this study. I will continue using these techniques here, which draw on Kleiweg’s free software tools (See <http://www.let.rug.nl/kleiweg/L04/>), as well as on the more recent web application GABMAP (Nerbonne et al. 2011). In addition, the study is also based on numerous data conversion programmes and clustering

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<sup>1</sup> The ALR is freely downloadable from: <https://atlasrif.wordpress.com/>.

algorithms developed for this purpose, and for which I am grateful to Bart Cocquyt for his assistance.

The Berber varieties of Ghomara (North-West Morocco) are not included in the Rif Berber continuum, since they are separated from it by the Arabic varieties of the Jbala, whose great impact on Ghomara Berber has produced much of its linguistic singularity. Hence, Ghomara Berber forms a separate geolect within the larger Moroccan Berber continuum (Camps and Vignet-Zunz 1998; Colin 1929, El Hannouche 2010, Mourigh 2016; also verified by my own fieldwork in the area). The Rif Berber continuum, on the other hand, corresponds to the widespread territory which is bordered (Figure 1 and Table1):

- In the West, by the varieties of the Ktama group (nr. 1), which belong to WRB and hence also to the so-called Senhaja (Srair) Berber group. Senhaja Berber includes all varieties of WRB and of westernmost WCRB (nrs. 1 to 13). The term Senhaja Berber is used here when the relating 13 groups are specifically concerned, otherwise I refer to the aggregates WCRB and WRB, which are more accurate denominations, geolinguistically speaking.
- In the South, by the koinè of Gersif (nr. 31), which is the ultimate geographic point where Rif Berber is spoken before reaching the corridor of Taza.
- In the East, by the varieties of Iznasen (nr. 26), which have spread to the regions of Arabic-speaking varieties towards the Moroccan-Algerian border.

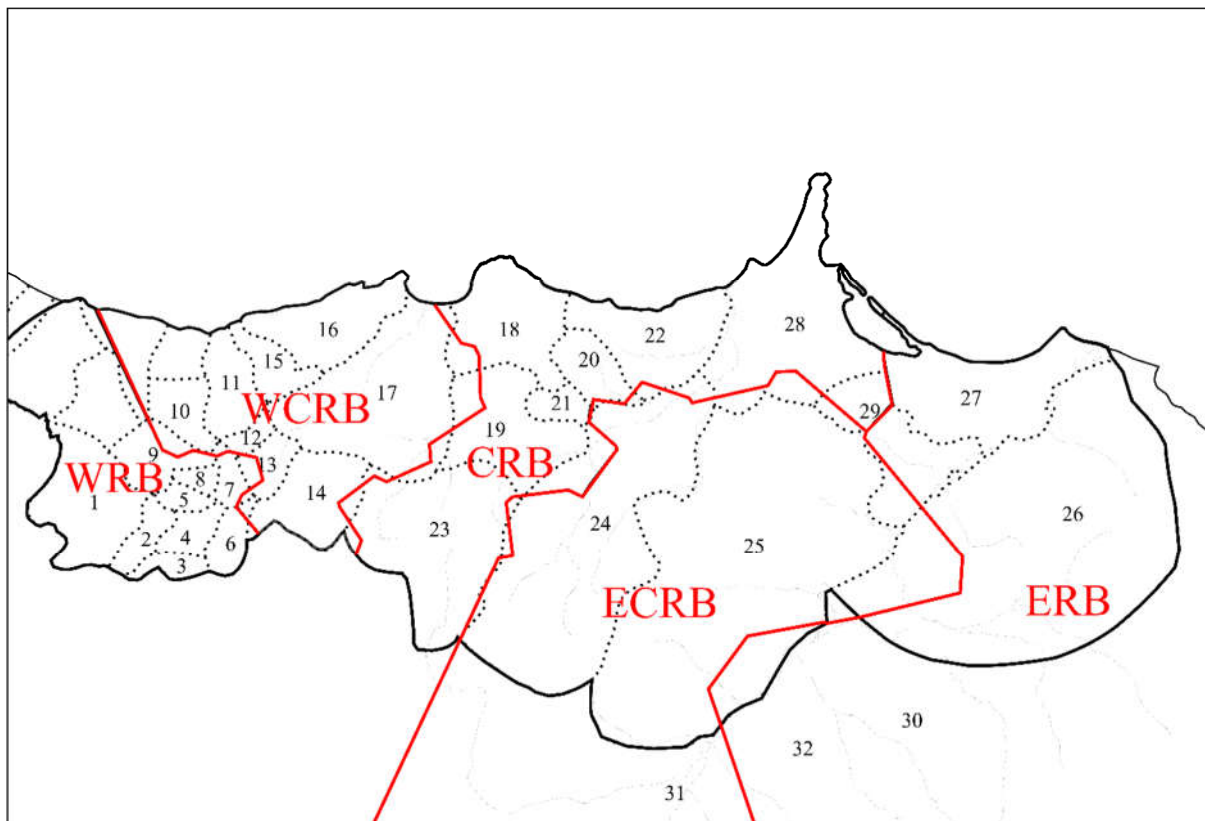


Fig. 1. Aggregates of the Rif Berber continuum and their respective Berber-speaking groups

The five core aggregates of the Rif Berber continuum cut across the traditionally – and often inaccurately – employed groupings of Senhaja, Rif, Iznasen, which are ethnonyms and hold no classification value at all, neither do they correspond to the intricate sociolinguistic landscape of the Rif area.

Table1: Aggregates of the Rif Berber continuum and their respective Berber-speaking groups

WRB	WCRB	CRB	ECRB	ERB
1 Ktama	10 Ayt Gmil	18 Ayt Temsaman	24 Ibdalsen	26 Iznasen
2 Tayzut	11 Ayt Bufraḥ	19 Ayt Tuzin	25 Ayt Buyeḥya	27 Ikebdanen
3 Ayt Bušibet	12 Targist	20 Ayt Wlišek	31 Gersif	29 Wlad Settut
4 Ayt Ḥmed	13 Ayt Mezduy	21 Tafersit		30 Ayt Buzeggu
5 Ayt Bunsar	14 Ayt ⵉammart	22 Ayt Seid		32 Tawriert
6 Ayt Bšir	15 Ayt Iṭteft	23 Igzenayen		
7 Zerqet	16 Ibeqquyen	28 Iqeleiyen		
8 Ayt Ḥennus	17 Ayt Weryayel			
9 Ayt Seddat				

The following section 2 is dedicated to the algorithmic classifications of the pronoun in Rif Berber. Section 3 examines the independent personal pronoun, while section 4 the pronoun clitics. In sections 5 to 9 are considered the indefinite, demonstrative, alterity, and interrogative pronouns, respectively. Section 9 concludes the article. Due to publishing restrictions, classifications with the Multi-Dimensional Scaling technique, which uses colour to visualise aggregate distances and which were also used in this study, are not included here.

## 2. Algorithmic classifications of the pronoun in Rif Berber

The algorithmic classification of all pronoun types in Rif Berber patterns the linguistic variation attested according to four primary aggregates, as plotted in Figure 2, instead of the five core aggregates of the cross-level classification presented in Figure 1 and in more detail by means of MDS-classifications in Lafkioui (2020). In the pronominal classification, ECRB and ERB are merged into one single aggregate (see plus symbol), which matches well with the overall lexical classification, which also distinguishes four major aggregates, although ECRB and ERB are in a somewhat looser connection in the lexical classifications (see Lafkioui 2018, 2020). The small isolated aggregate within WCRB in Figure 2 corresponds to Targist (nr. 12), whose variety of the Ayt ⵉazza is particular in that its speakers form a community of ancient immigrants, who originally stem from Iqeleiyen (nr. 28; CRB). This is why this isolated micro-area has the triangle as symbol, which is the same symbol representing the pronoun as patterned in CRB.

The aggregates displayed in Figure 2 are very stable, to which testifies the outcome of  $r=0.99$  of the validation test carried out by means of a corresponding MDS scatter plot, a stable technique that GABMAP offers for this purpose and which usually stands for more than 80% of the variation in the data. Other algorithmic techniques that verify the stability level of these aggregates were applied, among which the probabilistic clustering technique, which basically consists of constantly adding quantities of noise while clustering and maintaining the cophenetic distance of the sites compared (Nerbonne et al. 2008). Even after 0.8 of noise added – while the default extra noise is 0.2 – the aggregates remain stable. The high level of stability of the aggregates in Figure 2 was also corroborated by other algorithmic classification techniques, such as the weighted average algorithm (GABMAP), which looks as follows:

$$d_{k[ij]} = \left(\frac{1}{2} \times d_{ki}\right) + \left(\frac{1}{2} \times d_{kj}\right)$$

In doing so, the Berber data corroborate that this algorithm has the advantage of delivering consistent and representative clusters, as it allocates equal weight to the clusters that merge,

despite the unequal number of sites that make up each cluster. Note that these clusters are also validated by means of the GABMAP cluster validation technique, which draws on MDS and its two dimension plots.

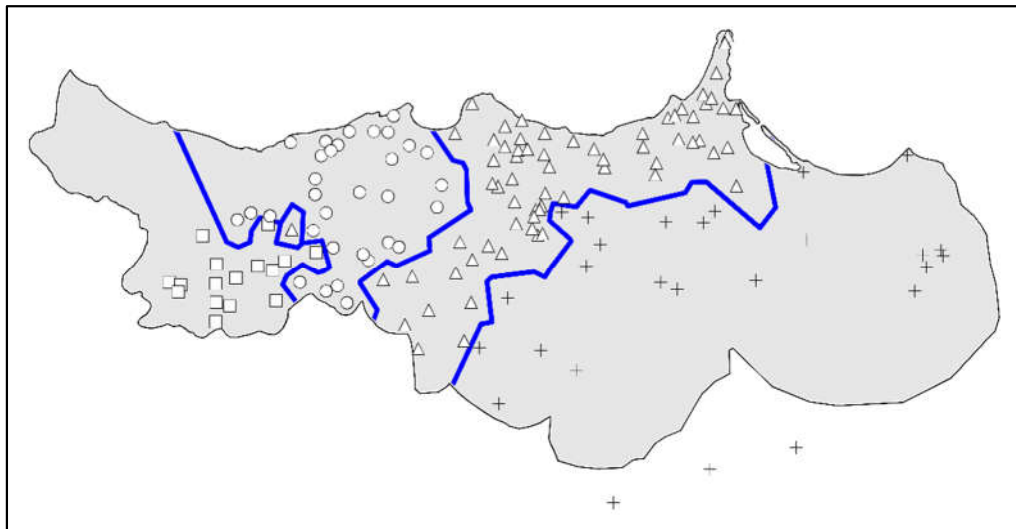


Fig. 2. Weighted average cluster map of Rif Berber pronouns

The data mining research carried on the Rif Berber cross-level corpus accounts for the indirect object clitics (IO clitics) as being primary aggregate determinators on the overall level (after lexemes expressing time notions and the phonetic-phonological phenomenon of vocalisation of the simple rhotic *r* and the geminate trill *rr*), as well as being the most important determinators on the morphosyntactic level (Lafkioui 2020). In other words, the IO clitics are largely responsible for the four aggregate formations of the Rif Berber pronoun (section 4.1). Furthermore, the independent personal pronouns, and in particular the 1S and 1P, do also have a great impact on the geolinguistic diffusion pattern of the Rif Berber's pronominal system (section 3).

The high degree of variation and of complexity which characterises the pronoun in Rif Berber has mainly to do with its morphosyntactic features (combinatorial and distributional features) and with its geolinguistic diffusion in the Rif area (Lafkioui 2007: 116-163), which will be addressed in the following sections. Just like in all other Berber languages, Rif Berber distinguishes independent personal pronouns (section 3), along with other types of independent pronouns (sections 5 to 8) and pronominal clitics (section 4).

### 3 Independent personal pronouns

The independent personal pronouns account for much geolinguistic variation in Rif Berber, as is shown in table 2. Some of these pronouns have incorporated extensions, such as *-in*, *-ini*, *-ti*, *-tin*, and *-tini*; e.g. *nəkk* vs *nəkk-ini* (1S), which originally may have functioned as intensifiers, but nowadays do not function as such, in general. Extended pronouns are attested all over the Rif area, although most of them do occur in WRB and western WCRB (Senhaja), where they are usually employed in free alternation.

Furthermore, the variants of the 1S are patterned in parallel with the variants retrieved for palatalisation of the long velar *kk* (Lafkioui 2007: 62-64): variants based on *š(š)* are mostly attested in CRB, ECRB, and most of WCRB, those based on *č* are generally retrieved in ERB, and those with the velar *k(k)* maintained (and thus non-palatalised) are found in WRB and westernmost WCRB (Senhaja). Some southern varieties of the Ibeqquyen (WCRB, nr. 16, Figure 1), however, have the pronoun *nəč* as a free variant (together with the predominant

*nəš/niš*), which is commonly attested in ERB and ECRB and thus distant from the area concerned. Therefore, contact could not have been the parameter that triggered the uncommon presence of the variants with a palatalised *č* among Ibeqquyen. On the other hand, contact has induced the presence of the *č*-palatalised variants in varieties such as the southern ones of Iqeləiyen (nr. 28) and the variety of Ayt Buzeggu of Igzenayen (nr. 23), since these are not only border varieties but are also part of a broader socioeconomical network sustained by various inter-local transportation facilities. Moreover, varieties of Ibeqquyen with *č*-variants for the 1S also account for the variant *nəč*in ‘we’ for the 1P. It is also worth mentioning that the variants of the 1S and 1P do significantly shape the geolinguistic aggregates of the Rif Berber pronominal system and are – together with the IO clitics – largely accountable for the fusion of the ERB and ECRB aggregates, as is shown in Figure 2.

Moreover, no gender distinction is made for the 1 person, singular or plural, even though I retrieved the sporadic instance *nəčinti* (with *t* as the feminine marker) for the 1FP in ERB (mainly in Tafuyalt and in Tγasrut of Iznasen, nr. 26) in the context of oral literary productions, mainly. No gender distinction is either made for the 2P and 3P in several varieties of the WRB aggregate (western Senhaja).

Apart from palatalisation, the independent pronouns are also subject to spirantisation of the velar *k* into *ḵ* (e.g., *kənniw* vs *ḵənniw*, 2MP; all over the Rif area) and of the interdental *t̪* into *h* (e.g., *nəttat̪an* vs *nəttahan*, 3FS; mainly in WRB, WCRB, and certain ERB varieties), and to voicing of the dental *t* (e.g. *kənnint* vs *kənnind*, 2FP; Ayt Weryayel, nr. 17).

Table 2. The independent personal pronoun

PNG	Predominant variants
1S	<i>nəš, nəšš, niš, nəč, nəkk, nəkki, nəkkin, nəkkini, nəkkti, nəkktin, nəkktini, nək, nki, nkin, nkini, nəkti, nəktin, nəktini</i>
2MS	<i>šək, šəḵ, ḵər, ḵəž, ḵəžž, ḵəžži, ḵəžžin, ḵəžžini, ḵəḡ, ḵəḡi, ḵəḡin, ḵəḡini</i>
2FS	<i>šəm, ḵəm, ḵmi, ḵmin, ḵmini, ḵəmm, ḵəmmi, ḵəmmin, ḵəmmini</i>
3MS	<i>nətta, nəttan, nəttani</i>
3FS	<i>nəttat̪, nəttata, nəttat̪an, nəttat̪ani, n(ət)taha, n(ət)tahan, n(ət)tahani</i>
1P	<i>nəššin, nəšnin, nəšni, nišnin, nəčin, nəčinti, nəčnin, nəkk<sup>w</sup>ni, nəkkni, nəkk<sup>w</sup>na, nəkkna, nəkknu, nukki, nukkni, nukni</i>
2MP	<i>kənniw, kənniwi, kənniwən, ḵənniw, ḵinniw, ḵənniwən, ḵənniwi, ḵunni, ḵənnumi, ḵənnami</i>
2FP	<i>kənnint, kənninti, kinninti, kənnim̪ti, kənnimti, kənnind, ḵənnint, ḵənninti, ḵinnint, ḵənnim̪ti, ḵənnimti, ḵənnind, ḵənnam̪ti, ḵənnum̪ti, ḵənniw, ḵənniwi, ḵunni, ḵənnami, ḵənnumi</i>
3MP	<i>nəṭni, nəṭnin, niṭni, niṭnin, nihni, nihnin, nəhni, nəhnin, nəhnim, nəhnimi, nəhnum, nəhnumi, nhumi, ntumi, ntumin, ntami, ntamin</i>
3FP	<i>nəṭnint, niṭnint, nəṭnind, niṭnind, nəṭənti, niṭənti, niṭəntin, niṭninti, nihnint, nihninti, nəhnint, nəhninti, nihənti, nihəntin, ntum̪ti, ntam̪ti, nəṭnin, nəhnim, nəhnimi, nəhnum, nəhnumi, nhumi, ntumi, ntumin, ntami, ntamin</i>

As for the origin of the independent personal pronoun, Chaker (1991) proposes to consider them as being developed out of the direct and indirect object clitics, which would have been supported by an element based on the nasal *n*, which he connects with the Semitic prefix ‘*an-*’ (Cohen 1983: 457). Galand (1966), on the other hand, suggests that the pronominal system in Berber could be essentially brought back to two variant series of the third person (*t* and *s*), whose functioning basically matches with that of the noun states in Berber. Both claims are thought-provoking and worth further examination, which is out of the scope of this article.

## 4 Pronoun clitics

The pronoun clitics are categorised into different series depending on their morphosyntactic role. From this perspective, Rif Berber distinguishes the direct object (DO) and indirect object (IO) clitics, the kinship clitics (KINC), the prepositional clitics (PREPC), the predicator clitics (PREDC), and the presentational (PRESC) clitics.

### 4.1 DO and IO pronoun clitics

According to their position in the verb phrase, the DO and IO clitics are divided into two series, that is, the postverbal series and the preverbal series, as is displayed in Table 3. The preverbal series is used in certain morphosyntactic contexts triggering fronting, such as the irrealis (after markers like e.g., *a*, *ad*, *la*), negation (after markers like e.g., *u*, *wa*, *war*), subordination (after markers like e.g., *a*, *ay*, *y*), and interrogation (after markers like e.g., *min*, *ayn*, *mayn*).

Concerning the DO clitics, the postverbal series are grouped into two sub-series based on the morphosyntactic structure of the verb phrase: sub-series I and II, the latter being marked by an initial *i*, except in certain WRB varieties (western Senhaja; mainly Ktama, nr. 1) where the initial vowel is *a* when not combined with the 3S and 3P, where it stays *i*. The initial vowel *a* is probably an innovation triggered by analogy with the initial *a* of the IO correlates (see Table 3). Apart from the various exceptions and restrictive rules discussed in detail in the ALR (Lafkioui 2007: 122-127) and in Lafkioui (2020), the intricate system of the DO clitics in Rif Berber boils down to what follows: C-initial clitics are generally used after a full vowel of the verb stem or a suffixal PNG marker (postverbal sub-series I), whereas V-initial clitics appear after a consonant of the verb stem or perfectives of the type c1c2 and c1c1 ending with *a* (postverbal subseries II). C-initial clitics may be preceded by the extension *ya*, which is attested for the first person all over the Rif area, e.g. *yay* (1S) and *yanəy* (1P) and their local variants, and in particular in WCRB and WRB, where it also occurs in the 2S and 2P in many varieties. In the latter aggregates (especially in Senhaja), the extension undergoes metathesis into *ay* when combined with V-initial clitics following a consonant of the verb stem, as in e.g. *i-ssn=ayam* (3MS.know.PFV=2FS) from Ktama (nr. 1). In this same area (Senhaja), clitic variants comprising the spirantised  $h < *t$  (WRB) occur in postvocalic position, just as in the following cases from Ktama (nr. 1): the clitic *h* (3MS), which is usually followed by the ventive, as in *i-nya=h=d* ‘he killed him’ (3MS-kill.PFV=3MS=VENT); the clitic *hən* (3P) *i-nya=hən=d* ‘he killed them’ (3MS-kill.PFV=3MP=VENT) of the subseries I. In case of verbs ending with a consonant, the variant *ihən* (3P) of the subseries II is used, as in *i-ssn=ihən* ‘he knew them’ (3MS-know.PFV=3MP).

The Rif area is divided into two, basically, when it comes to the geolinguistic pattern formed by the variants of the 3FS: one aggregate contains ERB, ECRB, and a large part of CRB, which freely alternate the clitics *t* and  $t(t)\partial t$  (and corresponding variants with *i*), and a second aggregate is mainly composed of WCRB and WRB, which use the variant *t* and its correlate *it*, only. The WRB aggregate encompasses, however, a small number of varieties (mainly located around the area of Ayt Hmed, nr. 4, and Taghzut, nr. 2), which have the uncommon affricate  $t$  as clitic for the 3FS, which is also attested in Kabyle Berber (North Algeria). In certain WRB varieties (especially the more western ones; western Senhaja), the presence of the ventive triggers a number of phonetic changes of the clitics, such as for example that of the 3FS *t* into *h* in an intervocalic position (just as with 3MS  $t > h$ ) and that of *t* into  $t$  in prevocalic position. Consequently, the 3MS and 3FS clitics converge here and are dissociated by means of the ensuing ventive, which, for instance, changes into *id* after the 3MS clitic as opposed to the regular *d* ( $\partial d$ ) after the 3FS.

Rif Berber is also split into two groups as regards the variation attested for the 2P DO clitic: a group with clitics based on *wən* and its numerous variants, spread all over the Rif area, and another one based on *kum* and its variants, mainly attested in WCRB and WRB (see distribution maps in Lafkioui 2007: 131). Note that clitics with *t*-voicing (into *d*) are commonly attested among Ayt Weryaɣel varieties (nr. 17), not only for the 2FP, e.g., *ikənd*, *ikənd*, and *iškənd*, but also for the 3FP, e.g., *itənd* and *ind*. On the other hand, in more western varieties of WCRB and those of WRB (Senhaja), a spirantisation of  $t > h > \emptyset$  is regularly retrieved among the 3P clitics, as in *tən*, *hən*, *n*; the latter variant usually occurs in preverbal position. Yet, the 3P *n* (and variant *in*), may also stem from another – and probably older<sup>2</sup> – variant with which it is homophonous and which is frequently used among a number of non-Senhaja varieties of Rif Berber (mainly eastern WCRB, CRB, ECRB), where it is in perfect correlation with the 3FP clitic *nt* (and variant *int*); both may appear here in postverbal and preverbal position, although a slight preference for the preverbal position is recorded. The short variants *n* (3MP) and *nt* (3FP) are employed after verbs ending with a vowel, as in (1a) from Ayt Temsaman (nr. 18). Otherwise, a long variant of the clitic is used, as in (1b), or a variant of type II with an initial *i*, as in (2).

- |                                                              |                                                                           |                                                            |
|--------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------|
| (1a) <i>yə-syi=n</i><br>3MS-buy.PFV=3MP<br>'He bought them.' | (1b) <i>*syi-ɣ=n &gt; syi-ɣ=tən</i><br>buy.PFV-1S=3MP<br>'I bought them.' | (2) <i>yə-ɬf=in</i><br>3MS-take.PFV=3MP<br>'He took them.' |
|--------------------------------------------------------------|---------------------------------------------------------------------------|------------------------------------------------------------|

Devoicing and vocalisation of the fricative velar  $\gamma$  of the 1P clitic is regularly attested in Rif Berber. While devoicing into *x*, e.g., *anəḥ*, *aḥən*, *ax* compared to *anəɣ*, *aɣən*, *aɣ*, is common practice in CRB, complete vocalisation, such as in *ana* and its reduced variant *na* (< *anay* < *\*anəɣ*) does frequently occur in westernmost WCRB and WRB (Senhaja). Note that the vocalised  $\gamma$  is reinstated when the ventive follows (see Lafkioui 2007: 82-83 for vocalisation and devoicing of  $\gamma$ ). The variants *aɣən* and *aḥən* have been affected by metathesis, which is also attested in other Berber-speaking areas of North Africa (Brugnatelli 1993, Lafkioui & Merolla: 2002).

Regarding the preverbal DO clitics, there is only one series, which does not alter according to the morphological features of the verb (except in westernmost WRB; western Senhaja), but it may alter according to the phonetic context and the geolinguistic variety in question. As such, short and spirantised variants containing *h* are preferred (and sometimes even obligatory) in preverbal position in certain aggregates (especially in WRB). The preverbal series is morphologically distinct from the post-verbal series I for the first person in most of the Rif Berber varieties, for which the clitics begin with the interdental  $\underline{d}$  in the majority of the Rif Berber aggregates (except WRB) or with *l* in certain ERB varieties (see Table 3).

Some interesting findings concerning the preverbal DO series pertain to the varieties of WRB and westernmost WCRB (Senhaja). In some WRB varieties (western Senhaja), mainly belonging to Ktama (nr. 1) and to Taghzut (nr. 2), the variants *yṯ* and *yḏ* are attested for the 1S, respectively, whereas elsewhere in Rif Berber the same *y* of the postverbal clitic is used. These remarkable variants generally go with the 3MS and the 3P of the verb, whereas the regular *y* is employed with all other persons (2S, 2P, 3FS), except with the 1S. A similar variant is retrieved in Ghomara Berber (El Hannouche 2010: 116). It is also in this specific area of the Rif (western Senhaja) that certain varieties (e.g., Ktama, nr. 1) have *hən* as the preverbal correlate of postverbal variants such as *na*. One of the most regular 1P preverbal clitics in Senhaja Berber is *gən*, which results from a metathesis of the pan-Berber *nəḡ*. Metathesis affecting preverbal clitics is also common elsewhere in Rif Berber, especially in WCRB, CRB, and ECRB, where

<sup>2</sup> See Brugnatelli 1993 about the absence of  $\underline{t}$  of the 3P in Berber.



not only variants such as *dayən* and *daxən* are frequently used, but also their short correlates *day* and *dax*. The less common metathesis of the 3MP *tən* into *nt* is also recorded in Rif Berber, especially in CRB, where it appears in preverbal position mainly, just as in the other Berber languages where it occurs (Brugnatelli 1993). It is worth noting that the 3MS preverbal clitic is *t* instead of the more common *ṭ* (or spirantised *h*) in certain WRB varieties (e.g. Ayt Hmed, nr. 4) and in parallel the 3P is *tən* instead of *ṭən* or *hən*.

Regarding all DO series, variants containing the spirant *š* (typically Zenet<sup>3</sup>) are mostly attested in ERB, ECRB, and CRB, to which are added, as one goes towards the West, variants containing the velars *k* and *ḳ* (CRB and WCRB), which end up completely supplanting the former variants in the varieties of WRB (western Senhaja). Moreover, the 2S and 2P of the postverbal I and preverbal series have free variants which are similar to their independent correlates; e.g. *kəm*, *ḳəm*, *šəm* for the 2FS. The 2S and 3P also have short variants. In CRB, ECRB, and WCRB, these short variants tend to appear with perfectives of the c1c2 and c1c1 type for the 3S and 1P, as in the following examples from Ayt Tamsaman (nr. 18): *yə-nɣa=m* compared to *yə-nɣ=išəm* ‘he killed you (FS)’ (3MS-kill.PFV=2FS), *yə-nɣ=iš* compared to *yə-nɣ=išək* ‘he killed you’ (3MS-kill.PFV=2MS), *yə-nɣ=in* compared to *yə-nɣ=iṭən* (3MS-kill.PFV=3MP) ‘he killed them’, *yə-nɣ=int* compared to *yə-nɣ=iṭənt* ‘he killed them (FP)’ (3MS-kill.PFV=3FP). In WRB and westernmost WCRB (Senhaja), both short and long variants do also occur but generally in free alternation (although a preference for short forms is recorded) and for the 2S; e.g., *m* instead of *ḳəm* for the 2FS (Ayt Bunsar, nr. 5). In addition, WRB (western Senhaja) generally does not distinguish gender for the plural in all pronominal series, whereas western WCRB (eastern Senhaja; i.e., Zerqet, Ayt Gmil, Ayt Buraḥ, Targist, and Ayt Mezduy) does, just as in all other Rif Berber varieties. Note that Rif Berber shares with the majority of the Berber languages the relative morphological uniformity of the 3MS and 3MP variants.

Regarding the IO clitics, the preverbal series is distinguished by a prefixed *ḍ* (in most Rif Berber varieties) or *l* (in certain ERB varieties), except in WRB and western WCRB (Senhaja), where the IO series is basically similar to the DO series, except for the 3S and 3P, for which the respective pan-Berber variants *as* and *asən* are used, but without gender distinction, though. In all other Rif Berber varieties, gender is usually marked by a *t* or its voiced correspondent *d* (Ayt Weryayel, nr. 17). The IO clitics may also be subject to diachronic spirantisation and to vocalisation (see Table 3; Lafkioui 2007: 128-132).

Just like with the DO clitics, the variants of the 2MP IO clitic are subdivided into two sets; a set containing the bilabial *w* (e.g. *awen*), spread all over the Rif area, and a set having the velar *k* or *ḳ* (e.g. *aḳum*), mostly attested in WCRB and WRB. The Ayt Weryayel varieties (nr. 17) account for interesting findings pertaining to the 2FP, as they do not only account for a voicing of the final dentals (e.g., *akənd*, *aḳənd*), but also for the irregular variant *aḳumt*, which is the feminine correlate of *aḳum*. When in contact with a vowel, variants of the post-verbal series alternate freely with allomorphs preceded by *y*, as in *ini=asən* > *in=asən* / *ini=yasən* ‘Tell them!’ (tell.AOR.IMP.S=3MP) from Ayt Weryayel (nr. 17).

Clitic fronting is a common phenomenon in Rif Berber and in Berber in general; the pronominal and ventive clitics usually precede the verbal head (but follow the triggering marker) without changing their respective order, that is, [IO clitic + DO clitic + ventive clitic], like in example (3a) from Ikebdanen (nr. 27), which accounts for a regular case of fronting. Example (3b), on the other hand, is a case of partial fronting, which is also attested in Rif Berber, especially in ERB, WCRB, and WRB, and usually when the ventive is involved. Clitic

<sup>3</sup> Zenet stands here for a group of Northern and Eastern Berber languages of North Africa which share a number of linguistic features.

doubling is also attested in these aggregates of Rif Berber, for which example (3c) from the same variety provides evidence.

- (3a) *ur* ***das=t=id=yə-rni*** *ša.*  
 NEG 3S=3FS=VENT=3MS-add.PFV.NEG NEG  
 ‘He did not add him that.’
- (3b) *ur* ***d=yə-rni=t*** *ša.*  
 NEG VENT=3MS-add.PFV.NEG=3FS NEG  
 ‘He did not add it.’
- (3c) *ur* ***d=yə-rni=t=id*** *ša.*  
 NEG VENT=3MS-add.PFV.NEG.=3FS=VENT NEG  
 ‘He did not add it.’

Partial fronting and clitic doubling is not a common phenomenon in Berber, but is attested outside the Rif area, such as in the Awras area (Northeast Algeria) among the Shawi Berber speakers (Lafkioui & Merolla 2002). On the other hand, double dative expression does commonly occur in Berber, including in Rif Berber. The double expression of the IO referents is often used with the verb form *yə-nna* ‘he said’, as in example (4) from Ayt Buyehya (nr. 25; ECRB).

- (4) *tə-nna=as* *i* *yamma=s*  
 3FS-say.PFV=3S to mother=3S  
 ‘She said to her to her mother > She said to her mother’

These double dative expressions, especially when based on the verb ‘to say’, such as e.g. *yə-nn=as* (3MS-tell.PFV=3MS) and *yə-nn=aš* (3MS-tell.PFV=2MS), are often grammaticalised and function as discursive markers; they are used to manage and enhance the dynamics of the discourse.<sup>4</sup>

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<sup>4</sup> See Souag 2015 on dative agreement in Berber.

Table 3. Predominant DO and IO clitic pronouns in Rif Berber

PNG	DO			IO	
	Postverbal I	Postverbal II	Preverbal	Postverbal	Preverbal
<b>1S</b>	<i>ay, ayi, əyyi, iyyi, y, yi</i>	<i>ay, ayi, əyyi, iyyi, y, yi</i>	<i>ḍay, ḍəyy, ḍiyy, ḍy, ḍyi, ḍi, li, y, yṭ, yḍ</i>	<i>ay, ayi, əyyi, iyyi</i>	<i>ḍay, lay, ḍayi, ḍəyyi, ḍiyyi, y, yṭ, yḍ</i>
<b>2MS</b>	<i>k, k̄, š, šək, šək̄, kəž, kəžž, kəž, ak̄, kəžž, kəğ, kəğ̄</i>	<i>ik, ik̄, iš, išək, ak̄</i>	<i>k, k̄, š, šək, šək̄, kəž, kəžž, kəž, kəžž, kəğ, kəğ̄</i>	<i>ak, ak̄, aš, ay</i>	<i>ḍak, ḍak̄, ḍaš, lak̄ ḍay, ak, ak̄</i>
<b>2FS</b>	<i>kəm, k̄əm, šəm, m, akəm, ak̄əm, am</i>	<i>ikəm, ik̄əm, išəm, akəm, ak̄əm, am</i>	<i>kəm, k̄əm, šəm, m</i>	<i>akəm, ak̄əm, am</i>	<i>ḍakəm, ḍak̄əm, ḍam, lam, akəm, ak̄əm, am</i>
<b>3MS</b>	<i>t, h</i>	<i>it, h</i>	<i>t, h, t</i>	<i>as</i>	<i>ḍas, las, as</i>
<b>3FS</b>	<i>t, ttət, tət, t̄</i>	<i>it, ittət, itət, it̄</i>	<i>t, ttət, tət, h</i>	<i>as</i>	<i>ḍas, las, as</i>
<b>1P</b>	<i>anəy, anay, ay, ayən, ana, na, anəx, axən, ax</i>	<i>anəy, anay, ay, ayən, ana, na, anəx, axən, ax</i>	<i>ḍanəy, ḍanay ḍay, ḍayən, ḍanəx, ḍaxən, ḍax, ḍana, lanəy, ayən, yən, hən</i>	<i>anəy, anay, ay, ana, anəx, ax</i>	<i>ḍanəy, ḍanay ḍay, ḍayən, ḍanəx, ḍaxən, ḍax, ḍana, lanəy, ayən, yən, ahən, hən</i>
<b>2MP</b>	<i>wəm, wən, awən kən, k̄ən, kum, k̄um, kun, k̄un, šwəm, šwən, škum, kənniw, k̄ənniw</i>	<i>iwəm, iwən, awən, ikən, ik̄ən, ikum, ik̄um, ikun, ik̄un, akən, ak̄ən, akum, ak̄um, akun, ak̄un, išwəm, išwən, iškum, ikənniw, ik̄ənniw</i>	<i>wəm, wən, kən, k̄ən, kum, k̄um, kun, k̄un, šwəm, šwən, škum, kənniw, k̄ənniw</i>	<i>awəm, awən, akum, ak̄um, akun, ak̄un</i>	<i>ḍawəm, ḍawən, ḍakum, ḍak̄um, ḍakun, ḍak̄un, lawən, awəm, awən, akum, ak̄um, akun, ak̄un</i>
<b>2FP</b>	<i>kənt, k̄ənt, kənd k̄ənd, kəmt, k̄əmt, k̄əmt, škənt, šk̄ənt, šk̄ənd, šənt, kunt, k̄unt, wənt, kənnint, kənnind, k̄ənnint, k̄ənnimt, k̄ənnind, k̄ənniw, wən, awən, wəm, kən, k̄ən, kun, k̄un, kum, k̄um, škum, šwəm, šwən</i>	<i>ikənt, ik̄ənt, ikənd, ik̄ənd, ikəmt, ik̄əmt, ik̄əmt, iškənt, išk̄ənt, išk̄ənd, išk̄ənt, išk̄ənd, išk̄ənt, iwənt, ikənnint, šwəm, ikənnind, šwən, ikənnint, ikun, ik̄ənnimt, ikun, ik̄ənnind, ikum, ik̄ənniw, iwən, iwəm, ikən, ik̄ən, ik̄um, iškum, akən, awən, ak̄ən, akum, ak̄um, akun, ak̄un</i>	<i>kənt, k̄ənt, kənd k̄ənd, kəmt, k̄əmt, k̄əmt, škənt, šk̄ənt, šk̄ənt, šk̄ənd, šənt, kunt, k̄unt, wənt, kənnint, kənnind, k̄ənnint, k̄ənnimt, k̄ənnind, k̄ənniw, wən, wəm, kən, k̄ən, kun, k̄un, kum, k̄um, škum, šwəm, šwən</i>	<i>akənt, ak̄ənd, ak̄ənt, ak̄ənd, ak̄əmt, ak̄əmt, ak̄əmt, akunt, akunt, akunt, ašənt, aškənt, ašk̄ənt, ašənt, (a)wən, (a)kum, (a)k̄um, (a)kun, (a)k̄un</i>	<i>ḍakənt, ḍak̄ənd, ḍak̄ənt, ḍak̄ənd, ḍak̄əmt, ḍak̄əmt, ḍak̄əmt, ḍakunt, ḍakunt, ḍakunt, ḍašənt, ḍaškənt, ḍašk̄ənt, ḍašənt, ḍawən, ḍakum, ḍak̄um, ḍakun, ḍak̄un, lak̄əmt, lak̄əmt̄ akənt, ak̄ənt, ak̄əmt, ak̄əmt̄, ak̄əmt, akunt, ak̄unt, (a)wən, (a)kum, (a)k̄um, (a)kun, (a)k̄un</i>
<b>3MP</b>	<i>tən, hən, n</i>	<i>itən, ihən, in</i>	<i>tən, hən, n</i>	<i>asən, sən</i>	<i>ḍasən, lasən, asən</i>
<b>3FP</b>	<i>tənt, hənt, nt, t̄ənd, nd, t̄ən hən, n</i>	<i>it̄ənt, ihənt, int, it̄ənd, ind, it̄ən, ihən, in, t̄ənt, hənt, nt</i>	<i>tənt, hənt, nt, t̄ən, hən, n</i>	<i>asənt, asənd, (a)sən</i>	<i>ḍasənt, ḍasənd, ḍasən, lasənt, (a)sən, (a)sənt</i>

## 4.2 Other pronoun clitics

Apart from the DO and IO clitics, Rif Berber also distinguishes three other clitic types, which are presented in Table 4; these are the kinship clitics (KINC), the prepositional clitics (PREPC), and the predicator (PREDC) and presentational (PRESC) clitics. Again, depending on the geolinguistic aggregate and variety in question, parts of these clitics may undergo voicing, devoicing, and spirantisation.

Table 4. Other pronoun clitics (predominant variants)

PNG	KINC	PREPC	PREDC/PRESC
1S	$\emptyset$	<i>i, y, yi</i>	<i>ayy, ayyi, y, yi</i>
2MS	<i>k, k̄, š, k̄š, nnək̄</i>	<i>k, k̄, š</i>	<i>k, k̄, š, šək</i>
2FS	<i>m</i>	<i>m</i>	<i>kəm, šəm, m</i>
3MS	<i>s</i>	<i>m</i>	<i>t̄</i>
3FS	<i>s</i>	<i>m</i>	<i>t</i>
1P	<i>tnəy, t̄nəy, t̄na, t̄nəh̄, nəy, nəy, na, nnəy, nnəy, nna</i>	<i>nəy, nəy, na, nəh̄</i>	<i>anəy, ay, ayən, anəh̄, axən, ax, ana, na, anay</i>
2MP	<i>t̄wəm, t̄wən, t̄kum, k̄um, wən, nwən, nnun</i>	<i>wəm, wən, un, k̄um</i>	<i>wəm, wən, kun, k̄ən, k̄əm, k̄um, šk̄um, šwəm, šwən, k̄ənniw, k̄ənniwən, k̄ənniw</i>
2FP	<i>t̄kənt, t̄k̄ənt, t̄kənd, t̄k̄ənd, t̄kəmt, t̄šənt, t̄wən, t̄kum, k̄ənt, k̄ənt, k̄ənd, k̄ənd, wənt, wən, nwən, nnun</i>	<i>kənt, k̄ənt, k̄ənd, kəmt, k̄əmt, k̄əmt, šənt, wənt, wən, un, k̄um</i>	<i>kənt, k̄ənt, kənd, k̄ənd, šk̄ənt, šk̄ənd, k̄ənnint, k̄ənninti, k̄ənnint, k̄ənnimti, wəm, wən, kun, k̄um, šk̄um, šwəm, šwən</i>
3MP	<i>t̄sən, sən, nsən</i>	<i>sən</i>	<i>t̄ən, hən, yən, n</i>
3FP	<i>t̄sənt, t̄sənd, t̄sən, sənt, sən, nsən</i>	<i>sənt, sən</i>	<i>t̄ənt, t̄ənti, t̄ənd, yənt, yənti, nt, t̄ən, hən, yən, n</i>

Although kinship clitics are generally combined with kinship terms, their morphology indicates strong similarities with the prepositional clitics. The difference between them primarily concerns the plural, where the KINCs bear an initial *t̄*, except in WRB and western WCRB (Senhaja), where most varieties display a complete analogy between the two paradigms. An exception retrieved in this latter area concerns the varieties of Ktama (nr. 1, Figure 3), since they commonly use adnominal clitics with kinship terms, which are based on the prepositional construction [*n* + clitic]. Hence, three types of KINCs are retrieved for the plural in Rif Berber (Table 4):

- Type with initial *t̄*, ERB, ECRB, CRB, and WCRB; e.g., *t̄wən* (2PM)
- Type without initial *t̄*, WRB and western WCRB (Senhaja); e.g., *wən* (2PM)
- Type with the preposition *n*, Ktama (WRB, nr. 1); e.g., *nwən* (2PM)

Some observations that are worth highlighting: the varieties of the Ayt Weryayel (nr. 17) use variants with or without the initial *t̄* in free variation, even though the preferred variants are generally with *t̄*. Moreover, the clitic *wənt* of the 2FP is typical of in-between varieties, like for instance those of Zerqet (nr. 7, e.g., variety of Ayennuy), in that the clitic indicates here gender, like in most Rif Berber varieties (except in WRB, western Senhaja Berber), but bears no initial *t̄*, just as in Senhaja Berber. As for the singular, apart from the 2MS, similar KINCs are attested in the entire Rif area. The main morphological variant of the 2MS are *š* and *k̄*; the latter composes with the possessive preposition *n* ‘of’ the synthetic clitic *nnək̄* (< *nn-k̄*), which is retrieved in the varieties of Ktama (nr. 1; WRB). Another interesting feature that sets off WRB and western WCRB (Senhaja) from the other varieties of Rif Berber is that clitics affect here

the morphological structure of the kinship term for mother, *yamma*, except for the 1S, as in (5a) from Ayt Bunsar (nr. 5).

- |                                                         |                                                   |
|---------------------------------------------------------|---------------------------------------------------|
| (5a) <i>yamma</i><br>mother= $\emptyset$<br>'my mother' | (5b) <i>mmay=k</i><br>mother=2MS<br>'your mother' |
|---------------------------------------------------------|---------------------------------------------------|

Regarding the prepositional clitics, most variation is attested for the plural clitics, as is shown in Table 4. All clitics may affect the morphology of the prepositions to which they are joined and which are diversified. An example in point is given in (6) from Ayt Tuzin (nr. 19).

- |                                                |   |                                               |
|------------------------------------------------|---|-----------------------------------------------|
| (6) <i>h uzru</i><br>on stone.AS<br>'on stone' | > | <i>h=as, ha=s, haf=s</i><br>on=3MS<br>'on it' |
|------------------------------------------------|---|-----------------------------------------------|

The preposition *n* 'of' is of special interest in that it makes up, together with the clitics, the prepositional complexes used as adnominal clitics (possessive clitics). These complexes are based on the variants *in* or *nn* for the singular and on *nn* (first person) or *n* (all other persons) for the plural. The adnominal clitics of the *in* type become *yn* when they follow a vowel. Note that the clitic of the 1S is *inu* in the entire Rif area (or free variants; e.g., *inaw* or *iniw* from WCRB), which becomes *yinu* before a vowel. The following are examples from Ayt Seid (nr. 22):

- |                    |          |                |
|--------------------|----------|----------------|
| (7) <i>anu=ynu</i> | well=1S  | 'my well'      |
| <i>anu=nnas</i>    | well=2MS | 'your well'    |
| <i>anu=nnam</i>    | well=2FS | 'your well'    |
| <i>anu=nnas</i>    | well=3S  | 'his/her well' |
| <i>anu=nnah</i>    | well=1P  | 'our well'     |
| <i>anu=nwam</i>    | well=2MP | 'your well'    |
| <i>anu=nasant</i>  | well=2FP | 'your well'    |
| <i>anu=nsan</i>    | well=3MP | 'their well'   |
| <i>anu=nsant</i>   | well=3FP | 'their well'   |

The adnominal complex based on *n* 'of' conveys reflexive values when combined with certain nouns, such as *afus* or its (Zenet) variant *fus* 'hand', *ihf* 'head', *iman(t)* 'soul, person', and *ima* 'soul, person'. Example (8) from Tawrirt (nr. 32, ERB) accounts for this.

- |                                                        |
|--------------------------------------------------------|
| (8) <i>ihf=nnas</i><br>head=3S<br>'himself', 'herself' |
|--------------------------------------------------------|

As for the syntax of prepositional predication (and other non-verbal predication types) in Rif Berber, comprehensive studies are provided in Lafkioui (2001, 2011: 23-92).

Concerning the predicator (copula) and presentational clitics, which are equivalent, they resemble the DO clitics to a certain extent; they mainly differ from the latter as to the 3MP, *yen*, and to the 3FP, *yent*, in several WCRB, CRB, ECRB varieties and some of the ERB aggregate. Another important observation is that, in most varieties of WRB and westernmost WCRB (Senhaja), predicators have a marginal use; they are generally employed for expressive purposes, such as that of cautioning someone, as in (9) from Ayt Hennis (nr. 8). In addition,

presentationals in Senhaja Berber do not take clitics either, but are followed by an independent pronoun instead, as in (10) from the same variety. Elsewhere in Rif Berber, on the other hand, predicators are commonly used, especially those expressing the “present continuous”, mainly rendered by *aqla* and its allomorphs (e.g., *aqqa*, *aqa*, and *qaqla*; note its different use in Senhaja, as in 9) and those conveying the “past perfect”, primarily rendered by *tuya* and its allomorphs (e.g., *ttuya*, *tuya*). In this type of predication, the clitic functions as the subject, as in (11) from Iqel’iyen (nr. 28), for instance. This is also the case in presentational constructions, where the clitic is the subject, while the role of predicate is assigned to the presentational, as in (12a) from Iqel’iyen (nr. 28), or to the verb phrase when the presentational functions as a preverb, like in (12b) from the same variety.<sup>5</sup>

- |                                                                                            |                                                                                                                        |
|--------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------|
| <p>(9) <i>aqa=m!</i><br/>         PRED=2FS<br/>         ‘Beware!’</p>                      | <p>(12a) <i>aqqa=y</i><br/>         PRES=1S<br/>         ‘Here I am.’</p>                                              |
| <p>(10) <i>ha nakk</i><br/>         PRES 1S<br/>         ‘Here I am.’</p>                  | <p>(12b) <i>aqqa=yi tätt-əy</i><br/>         PRED=1S eat.IPFV-1S<br/>         ‘Here I am eating &gt; I am eating.’</p> |
| <p>(11) <i>ttuya=šək mliḥ</i><br/>         PRED=2MS fine<br/>         ‘You were fine.’</p> |                                                                                                                        |

## 5. Indefinite pronouns

The indefinite pronouns are divided into animate and inanimate indefinites. In the singular, the animate indefinites mark gender opposition, whereas in the plural, gender remains grammatically undifferentiated and only the context in question allows to clear any ambiguity.

The MS animate indefinite pronoun shows significant diversity, which is geolinguistically patterned as follows, basically:

- *yan, iwən, yiwən, iwwən, ig<sup>w</sup>ən, iḡ<sup>w</sup>ən* in WRB and western WCRB;
- *ižžən, ižən, yižžən, ižžənt, ižənt* in eastern WCRB and CRB;
- *iḡən* in ECRB, ERB, and some exceptional cases of CRB and WCRB.

An interesting finding is that the variant *iḡən* is attested in the southern varieties of the Ibeqquyen (nr. 16, Figure 1; WCRB), which are geographically distant from the area characterized by this feature (ECRB, ERB) and so contact does not explain its occurrence here, which is consistent with the other palatalised irregular cases attested in the area (section 3). However, affrication does not appear in its feminine correlate, which is *ištən*, due to assimilation (*ḡt > št*), such as in the other WCRB varieties. Another finding worth mentioning is the common use of variants with the feminine marker *t* (*ižžənt, ižənt*) for the MS in WCRB and CRB; the dental *t* indicates in Berber both the feminine and, by extension, a unit (in opposition to a plural or a collective). The presence of the *t* may initially have to do with strengthening the unit value expressed by this pronoun (like in “just one”), but nowadays it does not have that expressive function, unless it is sustained by the proper prosodic markers.

The FS animate indefinite pronouns exhibit a striking parallelism with their masculine correlates. Often, the only divergence between them is the feminine marker *t* or *ṭ*; the

<sup>5</sup> For more detail about the morphosyntax of this construction type, see Lafkioui (2011: 23-92).

geolinguistic spread of the variants is somewhat different though and looks as follows, essentially:

- *yat*, *iwat*, *yiwat*, *iwwat*, *ig<sup>w</sup>at*, *iġ<sup>w</sup>at* in WRB and western WCRB;
- *ištān*, *ištānt*, *yištān*, *tištān* in WCRB, CRB, and ERB;
- *iġtān*, *iġat*, *iġt* in ECRB.

The variants *ištānt* and *tištān* of WCRB have the feminine double marked; the former is mainly attested in Ayt Weryaḡel (nr. 17), Ayt Mezduy (nr. 13), and Ayt Gmil (nr. 10), whereas the latter is chiefly recorded in Ayt Ɛammart (nr. 14). In addition, the occurrences *iġtān*, *iġat*, *iġt* of Ibḡalsen (nr. 24), Ayt Buyehya (nr. 25), and Ayt Gersif (nr. 31) did not undergo an assimilation by devoicing the sequence *ġt* into *št*, as in the neighbouring varieties. This latter feature is one of the most significant aggregate discriminators of ECRB, which is reflected in the cross-level classification in Figure 1.

Regarding the plural animate indefinites, there is relatively little variation; the most commonly used allomorphs are *ša* and *ši*. The pronouns *šra* ‘some’ and *šra* ‘some’ are also attested but are generally limited to ERB. There are also the special cases of *iḡaṭṭura* (MP) and *tiḡaṭṭura* (FP), which I retrieved in the variety of Ɛayn Zura (Ibḡalsen, nr. 24), for instance; they differ from other allomorphs by gender differentiation, as much as by their stem. All these variants are in competition with the Arabic loan *lbaʿḡ* ‘some’ and its local allomorphs, which are frequently used in Rif Berber.

The animate indefinite pronoun can fulfil the role of quantifier in a determinative construction of the type [indefinite pronoun/quantifier + preposition n ‘of’ + noun phrase in annexed state]. The pronoun agrees in gender and number with the noun phrase that it precedes and quantifies, as is illustrated in (13) from Ayt Bufraḡ (nr. 11; WCRB). Cases of mismatching, such as those where the feminine variant *ut* is used with a masculine noun phrase, are also attested, like in (14) from Ayt Seddat (nr. 9; WRB, western Senhaja), for instance; in Senhaja Berber, the variants *un* (MS) and *ut* (FS) commonly function as quantifiers. As a matter of fact, in Rif Berber, gender agreement is not consistently applied when it comes to quantifying a feminine noun phrase in the singular. Examples (15a) and (15b) from Ayt Wlišek (nr. 20) provide evidence for this. As for the plural, the indefinite pronoun remains unaltered (15c-d; Ayt Wlišek).

- |                                                                                                              |                                                                                                                       |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|
| <p>(13) <i>ižžān</i>      n    <i>wanu</i><br/> INDEF.MS of MS.AS.well<br/> ‘one of well’ = ‘a well’</p>     | <p>(15b) <i>ištān</i>      n    <i>tfunast</i><br/> INDEF.FS of FS.AS.cow.FS<br/> ‘one of cow’ = ‘a cow’</p>          |
| <p>(14) <i>ut</i>            n    <i>wanu</i><br/> INDEF.FS of MS.AS.well<br/> ‘one of well’ = ‘a well’</p>  | <p>(15c) <i>ša</i>            n    <i>tfunasin</i><br/> INDEF.P of FP.AS.cow.FP<br/> ‘some of cows’ = ‘some cows’</p> |
| <p>(15a) <i>ižžān</i>      n    <i>tfunast</i><br/> INDEF.MS of FS.AS.cow.FS<br/> ‘one of cow’ = ‘a cow’</p> | <p>(15d) <i>ša</i>            n    <i>ifunasin</i><br/> INDEF.P of MP.AS.cow.MP<br/> ‘some of cows’ = ‘some cows’</p> |

Concerning the inanimate indefinite pronouns, they are composed of two interdependent elements; the first agrees in gender and number, while the second remains invariable: [variable element + invariable element *nat*]. Table 5 gives an overview of the predominant inanimate indefinite pronouns of Rif Berber.

Table 5. The inanimate indefinite pronoun

NG	Predominant variants
MS	<i>i-naṭ, wi-naṭ, yi-naṭ, ay-naṭ, šī</i>
FS	<i>ṭi-naṭ, ṭay-naṭ, i-naṭ, šī</i>
MP	<i>i-naṭ-ən, wi-naṭ-ən, yi-naṭ-ən, ay-naṭ-ən, i-naṭ-in, wi-naṭ-in, šī</i>
FP	<i>ṭi-naṭ-in, ṭay-naṭ-in, šī</i>

The feminine gender of these pronouns is mainly marked by the initial *ṭ* (or variants) in Rif Berber; exceptions do also occur, however, like in Ayt Tamsaman (nr. 18), where the masculine form *i-naṭ* (MS) is recorded for the feminine as well. The plural is generally rendered by the suffix *ən* for the masculine and *in* for the feminine, but the Iqel'iyen (nr. 28) also make use of the suffix *in* to mark the MP, as in *i-naṭ-in* and *wi-naṭ-in*, for example.

Interestingly, WRB and western WCRB (Senhaja) generally do not have these inanimate indefinite pronouns, but just employ the invariable pronoun *šī* to express indefiniteness, although there are some exceptions encountered in bordering varieties, such as Zerqet (nr. 7), for instance. Apart from the variant *šī*, which is probably borrowed from the homophonous colloquial Arabic *šī* (< \*šay? ‘thing’), all inanimate indefinite pronouns are frequently used with deictic markers, for which account the examples in (16) from Ikebdanen (nr. 27; ERB).

- (16) *ṭay-naṭ-in-a* ‘these things here’  
*ṭay-naṭ-in-in* ‘those things there’  
*ṭay-naṭ-in-nni* ‘those things in question’

## 6. Demonstrative pronouns

The demonstrative pronouns in Rif Berber form a coherent and strongly developed morphological system, which is made up of two parts: an invariable part, common to most Rif Berber varieties, and a variable part, depending on the variety and type of demonstrative in question. The invariable part concerns the elements that mark gender and number, as is provided in Table 6. The MP reveals most of the geolinguistic variation. The variant *wi* is specific to WRB and western WCRB (Senhaja), whereas the variant *yu* characterises ERB. The other two variants are generally attested in WCRB, ECRB, and CRB. The use of *tu* for FP is restricted to ERB. In addition, WRB and western WCRB optionally alternate the variants of the feminine *ṭ* and *ṭi* with their spirantised allomorphs *h* and *hi*. The varieties of the Ayt Weryayel (nr. 17), known for voicing the feminine *ṭ* into *d*, retain in this case the unvoiced interdental *ṭ*.

Table 6. Invariable elements of the demonstrative pronoun

NG	Predominant variants
MS	<i>w</i>
FS	<i>ṭ, h</i>
MP	<i>i, yi, yu, wi</i>
FP	<i>ṭi, tu, hi</i>

As for the variable part, it diverges according to the semantic value of the deictic, i.e. proximal, distal, and anaphoric, as well as to the variety in question and the aggregate to which it belongs. Table 7 below provides an overview.



Table 7. Predominant variable elements of the demonstrative pronoun

Rif Berber aggregates	Singular (MS, FS)	Plural (MP, FP)
	<b>Proximal</b>	
ERB	<i>u</i>	<i>yya, yyu, ya, yu, nu</i>
ECRB, CRB, WCRB	<i>a</i>	<i>na</i>
WRB, WCRB	<i>ani, adda, ada, adi, aha</i>	<i>da, dda, da, di, hi, hid</i>
	<b>Distal</b>	
ERB	<i>in</i>	<i>nin, n, yyin</i>
ECRB, CRB, WCRB	<i>in, ən, əni</i>	<i>nin</i>
WRB, WCRB	<i>adin, addin, ida, ahin</i>	<i>din, ddin, hin</i>
	<b>Anaphoric</b>	
ERB	<i>inni</i>	<i>nni</i>
ECRB, CRB, WCRB	<i>ənni, ən</i>	<i>nni</i>
WRB, WCRB	<i>ənnā, ən-nnā, ən-lla, ən-adin</i>	<i>nnā, n-nnā, n-lla, n-idin</i>

In the case of distals, the varieties of Ayt ʕammart (nr. 14; WCRB) are distinct from other varieties of the area by the occurrences *ən* and *əni* in the singular, resulting in *wən* and *wəni* for the MS and *tən* and *təni* for the FS (Table 8). In ERB, the varieties of the Ikebdanen (nr. 27; and sometimes also of Zayyu of the Wlad Settut, nr. 29) are particular because their plural proximals and distals contain the unit *y* or *yy*, like in *iyya*, *iyyaniti(n)*, *yīyya*, *yīyyaniti(n)*, *iyyu*, *iyyuniti(n)* for the MP of the proximal, *tīyya*, *tīyyaniti(n)*, *tīyyu*, *tīyyuniti(n)* for the FP of the proximal, *iyyin* and *yīyyin* for the MP of the distal, and *tīyyin* for the FP of the distal (Table 8). Another noteworthy finding is the existence of the distal *inin* (MP) among varieties located in areas relatively distant from each other, that is, Iqeleiyen (nr.28), Tafersit (nr. 21), and Ibequyyen (nr. 16).

With regard to the anaphorics, the case of Ibequyyen (nr. 16) is remarkable, in that the variants *wən* (MS) and *tən* (FS) may be employed here independently, like for instance as an answer to a question. Elsewhere in Rif Berber, these and all other anaphorics are generally part of a determinative construction wherein they are determined by an adjective or a relative clause. Examples in point of the MS are given in (17) and (18) from Ayt Iṭteft (nr. 15).

- (17) *wən*                      *amqgran*  
 ANAPH.MS              MS.FRS.big  
 ‘the big one (in question)’

- (18) *wən*                      *i-sw-in*                      *aman*  
 ANAPH.MS              PTCP-drink.PFV-PTCP      MP.FRS.water  
 ‘the one (in question) who drank water’

The anaphorics *wən* (MS) and *tən* (FS) may freely alternate with *wənni* (MS) and *tənni* (FS) when the determinant begins with a consonant, as in example (19) from Ayt Weryayel (nr. 17).

- (19) *tənni*                      *mihəf*      *mmuṭ-ən*  
 ANAPH.FS              on wih be.dead.PFV-3MP  
 ‘the one (in question) for whom they died (in combat)’

The variants *wən* (MS) and *tən* (FS) also serve as essential components of various anaphoric pronouns attested in WRB and western WCRB (Senhaja), such as *wən-adin* (MS) and *tən-adin* (FS). In this area, significant variation is attested for the demonstrative pronoun; e.g., the plural of the anaphorics *wən-adin* (MS) and *win-adin* (MP) is marked not only by switching from the

element *w* to *wi* but also by the parallel modification of *adin* into *idin* (see Lafkioui 2007: 154-160, maps 193 to 196). Another finding worth underscoring is the appearance of various extended forms of the proximal pronoun in CRB and WRB, which may be used to qualify or intensify the relative proximity of the entities being referred to, but they may also alternate freely. As such, certain proximal short forms in Table 8 have long correlates; e.g., *wanita*, *wanitati*, *wanitatin*, *waqani*, *waqanit*, *waqaniti*, *waqanitin* for MS from Ayt Temsaman (nr. 18, CRB); *wada wada*, *wahada wada* for MS, *tada yada*, *tahada yada* for FS, *wihida maḍa* MP, and *ti(hi)ḍa maḍa* FP from Ktama (nr.1, WRB). Note also that certain WRB varieties (western Senhaja) do not distinguish gender in the plural.

Table 8. The demonstrative pronoun

NG	Predominant variants
	<b>Proximal</b>
MS	<i>wa, wu, wani, wadda, wad, wadi, waḍ, waḍa, wahad</i>
FS	<i>ta, tu, tani, tadda, tad, tadi, adi, taḍ, taḍa, taḥa, taḥad</i>
MP	<i>(y)ina, (y)i(y)ya, iyyu, yuyu, yinu, yunu, widda, wid, widi, wiḍ, wihid</i>
FP	<i>tina, ti(y)ya, tiyyu, tuyu, tinu, tunu, tidda, tida, tidi, tiḍ, tihi, tihid</i>
	<b>Distal</b>
MS	<i>win, wən, wan, wəni, wida, waddin, wadin, waḍin, wahin</i>
FS	<i>tin, tən, tan, təni, tida, taddin, tadin, taḍin, taḥin, hadin, adin</i>
MP	<i>yin, yinin, inin, yiyyin, iyyin, win, widdin, widin, wiḍin, wihin</i>
FP	<i>tin, tinin, tiyyin, tiddin, tidin, tiḍin, tihin, hidin, idin</i>
	<b>Anaphoric</b>
MS	<i>wən, wənni, winni, wənna, wən-lla, wən-adin, waḍin, wən-nna</i>
FS	<i>tən, tənni, tinni, tenna, tən-lla, tən-adin, taḍin, tən-nna</i>
MP	<i>yinni, inni, winna, win-lla, win-idin, wiḍin, win-nna</i>
FP	<i>tinni, tinna, tin-lla, tin-idin, tin-nna, hin-lla</i>

## 7. Alterity pronouns

The alterity pronouns are merely attested in WRB and western WCRB (Senhaja). The paradigm displayed in Table 9 shows a systematic opposition of grammatical gender and number, although free alternation between masculine and feminine variants is regularly attested for the plural. The variants *wiyəḍ* ‘(the) others’ (MP) and *tiyaḍ* ‘(the) others’ (FP) mainly appear among the Ayt Mezduy (nr. 13).

Table 9. The alterity pronoun

NG	Predominant variants
MS	<i>wayəḍ</i> ‘(the) other, another’
FS	<i>tayəḍ</i> ‘(the) other, another’
MP	<i>wiyyəḍ, wiyəḍ</i> ‘(the) others’
FP	<i>tiyyəḍ, tiyaḍ, wiyyəḍ, wiyəḍ</i> ‘(the) others’

Alterity pronouns follow the noun phrase which they determine. The following examples stem from Ayt Seddat (nr. 9), where gender is marked for both singular and plural.

- (20) *argaz wayəḏ* ‘another man, the other man’  
*tamyari tayaḏ* ‘another woman, the other woman’  
*irgazən wiyyəḏ* ‘other men, the other men’  
*timyarin tiyyəḏ* ‘other women, the other women’

On the other hand, certain varieties of Tayzut (nr. 2), for example, also use the masculine form to refer to feminine entities in the plural.

- (21) *argaz wayəḏ* ‘another man, the other man’  
*amtṭut tayaḏ* ‘another woman, the other woman’  
*irgazən wiyyəḏ* ‘other men, the other men’  
*imtṭutən tiyyəḏ* ‘other women, the other women’  
*imtṭutən wiyyəḏ* ‘other women, the other women’

Interestingly, the varieties of western WCRB (eastern Senhaja), such as Zerqet (nr. 7) and Ayt Bšir (nr. 6), do not possess a pronoun but the invariable markers *nnəḏən* and *yyaḏən* to express alterity, which correspond to the unvaryingly variants retrieved elsewhere in the Rif area and which relate to the expression *nḏn*, such as in *nniḏən*, *nniḏənt*, *nnəḏḏən*, *nnəḏḏənt*, *nəḏən*, *nnəḏni*, *nnəḏnit*, *nnəḏni*, and *nnəḏnit*. In the varieties of the Iznasen (nr. 26), however, preference is given to the variant *nniḏənt* for the feminine (see Lafkioui 2007: 152-153 for a distribution of the variants). Whereas WRB and western WCRB (Senhaja) use one of the synthetic pronouns of Table 9 to signify alterity, the other aggregates of Rif Berber (eastern WCRB, CRB, ECRB, ERB) make use of the following analytic determinative constructions; the examples in (22) and (23) stem from Ayt Tuzin (nr. 19):

- (22) [deictic + invariable alterity marker] to express definite alterity;  
*wən nnəḏni* ‘the other’ (MS)  
*tən nnəḏni* ‘the other’ (FS)  
*yin nnəḏni* ‘the others’ (MP)  
*tin nnəḏni* ‘the others’ (FP)

- (23) [indefinite pronoun + invariable alterity marker] to express indefinite alterity.  
*ižžən nnəḏni* ‘another’ (MS)  
*ištən nnəḏni* ‘another’ (FS)  
*ša nnəḏni* ‘others’ (MP, FP)

## 8. Interrogative pronouns

When interrogative pronouns are of Berber origin, they consist of the following two elements:

- An invariable interrogative element; *man* (WCRB, CRB, ECRB, and ERB) or *mana* (Ibeqquyen, nr. 16, WCRB);
- An element variable in gender and number (see Table 10).

In the majority of the WRB and western WCRB varieties (Senhaja), the Berber variants are replaced by the Moroccan Arabic loans *aš-mən* and *škun* (and variants), which are invariable and so function as adverbs. However, certain varieties of Ktama (nr. 1; e.g. Ssahel), form an exception, since they distinguish the composite interrogatives *škun-ta* (and variants) for the singular, as well as *škun-mən* and *škun-nəhnum* (and variants) for the plural. The composite variant *škun-nəhnum* is remarkable in that it combines two constituents of different linguistic origin: the Arabic interrogative *škun* ‘who?’ and the Berber personal pronoun 3P *nəhnum* ‘they’. The composite *škun-mən*, on the other hand, is the result of combining the two loans

*aš-mən* and *škun*. Other interrogatives that stand out are those of the Ibeqquyen (nr. 16), since they are based on the element *mana*; e.g., *mana-wa* ‘who, which one?’ (MS).

Table 10. The interrogative pronoun

NG	Predominant variants
MS	<i>man-wən, mana-wa, mana-wan, (a)š-mən, šku(n), škun-ta</i>
FS	<i>man-tən, mana-ta, mana-tan, (a)š-men, šku(n), škun-ta</i>
MP	<i>man-yən, man-yin, man-yənni, man-yinni, mana-yna, mana-ynan, (a)š-mən, šku(n), škun-mən, škun-nəhnum</i>
FP	<i>man-tən, man-tin, mana-tinni, mana-tina, mana-tinan, (a)š-mən, šku(n), škun-mən, škun-nəhnum</i>

In terms of syntax, interrogative pronouns often play the role of nominal predicate, that is, the syntactic head around which the other speech parts are organized, as in examples (24) to (26) from Tafersit (nr. 21).

- (24) *man-yinni y-ttsən?*  
 INT.MP PTCP-sleep.PFV  
 ‘Which ones are/were asleep?’
- (25) *man-yinni ig y-ttsən?*  
 INT.MP REL PTCP-sleep.PFV  
 ‘Which ones are/were asleep?’
- (26) *man-yinni d i-ħəddam-ən=nnəs?*  
 INT.MP PRED MP.FRS-worker-MP=3MS  
 ‘Which ones are his workers?’

In order to have a grammatically well-constructed utterance, the interrogative is necessarily followed by a completive clause, which may be a verbal subordinate clause, represented by a participle. The latter may be introduced by a relator (25) or may not (24), or may also be a non-verbal subordinate clause, which is generally introduced by a predicator in Rif Berber (26), except in WRB and western WCRB (Senhaja).

## 9 Conclusion

The data and findings presented in this article provide ample evidence for the complex nature of the pronominal system of Rif Berber, due to the numerous combinatorial and distributional restrictive rules (i.e. preverbal versus postverbal DO clitic series), as well as to the various phonetic transformations (i.e. spirantisation of  $\underline{t} > h > \emptyset$ ) and to certain discursive purposes (i.e. long proximal demonstrative pronouns to indicate the relative distance between the speaker and the discourse object). These highly diversified variants are geolinguistically patterned as a continuum with four stable aggregates, as is shown in Figure 2.

The composite continuum of the Rif Berber pronoun contains both ancient Berber features and innovations. Among the ancient features, there is, for instance, the absence of the initial  $\underline{t}$  in the 3P DO clitics in eastern WCRB, CRB, ECRB, as in *n* and *in* for the 3MP and *nt* and *int* for the 3FP. On the other hand, phenomena such as the initial vowel *a* instead of *i* of the postverbal DO clitic subseries II (except with 3S and 3P; e.g. *akəm* 2FS ‘you’ of Ktama Berber, instead of *ikəm*), and the preverbal 1S DO clitics *y $\underline{t}$* , *y $\underline{d}$*  (instead of *y*) are innovations that occur in certain varieties of WRB (western Senhaja).

The WCRB aggregate is of particular interest, because of its intricate composition, resulting from regular relocation and intensive contact between the speakers of its varieties, which belong to both so-called “Senhaja” Berber (in this case eastern Senhaja; nrs. 10-13, Figure 1, Table 1) and what is traditionally considered to be “Rif” Berber (nrs. 14-17). The eastern Senhaja Berber varieties (nrs. 10-13) are in-between varieties and account for properties typical of Senhaja Berber (such as, for instance, proximals based on the element *da* and variants), as well as for features typical of non-Senhaja Berber (such as gender differentiation in the plural). There is also the exceptional case of Targist (nr. 12), which forms an isolated micro-aggregate within WCRB and which represents the varieties spoken of a community of ancient immigrants from Iqeleiyen (nr. 28, CRB).

The other varieties of WCRB also account for many significant specificities. There is, for instance, the remarkable case of Ibeqquyen (nr. 16), and primarily its southern varieties, which testify to the existence of (free) variants with affricated palatalised instances of the velars *kk* and *gg*: e.g., *nəč* ‘I’ 1S (< \**nəkk*), and *nəčin* 1P ‘we’ (< \**nəkkin*), and the indefinite pronoun *iğən* MS (< \**iğən*). These variants are regularly attested in the varieties of ERB and ECRB, which are far away from Ibeqquyen. As no history of migration from these more eastern zones of the Rif area towards Ibeqquyen has been recorded so far, contact could not explain the presence of the affricated variants among Ibeqquyen. It is more likely that they are remnants of the prefinal stages of palatalisation of the velars *kk* > *č* > *šš* and *gg* > *ğ* > *žž*, both being typical transformation processes of Zenet Berber (Lafkioui 2006, 2007: 59-68).

### Abbreviations

1	first person	IMP	imperative	PRED	predicate, predicator
2	second person	INDEF	indefinite	PREDC	predicator clitic
3	third person	INT	interrogative	PREPC	prepositional clitic
ANAPH	anaphoric	IO	indirect object	PRES	presentational
AOR	aorist	IPFV	imperfective	PRESC	presentational clitic
AS	annexed state	IRR	irrealis	PROX	proximal
DEICT	deictic	KINC	kinship clitic	PTCP	participle
DIST	distal	M	masculine	REL	relator, relative
DEM	demonstrative	NEG	negation, negator	S	subject
DO	direct object	N	number	SG	singular
F	feminine	PFV	perfective	TAM	tense-aspect-mood
FRS	free state	PL	plural	VENT	ventive
G	gender	P	person		

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