

The system of negation in Berber

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This paper is a survey of the forms and functions of negation in various Berber languages covering a vast area in West Africa (Kabyle (Taqbaylit), Rifan (Tàrifit), Shilha (Tashelhiyt), Tuareg (Tahaggart, Tayirt), Zenaga). It shows that negation in Berber is characterized by non-verbal predicates which encode the distinction between locative-existential and identificational-qualificational, as well as by clear-cut aspectual asymmetries with respect to the positive/negative opposition. All those features are shared to a certain extent by many languages of North-West Africa. They are also attested worldwide, in various phyla. We propose that such features are related to the importance of the topic/focus distinction, and the predominance of aspectual over tense distinctions in the language.

Introduction

Berber languages, which are a branch of the Afroasiatic phylum, are scattered over a large area of North Africa, from the Mediterranean to Mali, Burkina Faso and Niger, and from the Atlantic Ocean to the oasis of Siwa in Egypt.

Despite a number of diverging features due to the autonomous evolution of dialects separated by Arabic-speaking zones, and to the lack of a written tradition, the unity of Berber is quite striking.

Typologically, Berber is head-marking at the level of the clause: the verbal stem is completed by a personal affix which refers to the main participant of the situation,¹ and followed by clitics (dative and accusative), and a proximal or distal particle. The most frequent word-order patterns are VSO and SVO, possessors always follow possesseees, and adjectives are placed after nouns. Predicates can either be verbal or non-verbal. The verbal system is dominated by aspect, which is marked with vocalic alternations (aorist, perfect, perfective, negative perfect/ive), prefixation or consonant gemination (imperfective, negative imperfective). Preverbal particles are used to

1. Berber is characterized by a high proportion of ambitransitive verbs, as for instance KRZ 'plough/be ploughed': in *yə-krəz*, the personal affix *yə-* (3.M.SG) can refer either to the field 'it is ploughed' or to the farmer 'he (has) ploughed', depending on the way the situation is viewed by the speaker.

modify the basic aspectual schemes and provide specific modal and aspectual values (irrealis, progressive). As far as the noun phrase is concerned, there are no articles, and NPs are either in the citation form or in the 'annexion state'.² Information structure, and especially topic-focus articulation, plays a dominant role in constituent ordering.

As in some other African languages, negation interacts with the aspectual system in an asymmetrical way, which will be described in this article. Non-verbal predication (identificational and locative-existential) are very often expressed with specific negative markers. Other negative markers are used for irrealis. Negation also interacts with clitic ordering at the level of the clause.

This paper describes the various salient linguistic facts about negation in several Berber languages. We first present non-verbal negations, which are related to focus on the one hand, and quantification on the other hand. We then turn to the study of verbal negation, by presenting the markers, and the word-order alternations they trigger, and then describing the reduction of aspectual oppositions in the negative subsystem. Throughout this description, we aim to show that, at least for Taqbaylit, those markers and phenomena are actually parts of a system based on the dichotomy betweenthetic and categorical judgements.

1. Non-verbal negation

1.1 Identificational and existential negations

What we call non-verbal negations are in fact invariant forms which are associated to non-verbal predication, mainly existential ('there is not') and identificational ('it is not'). Those two labels actually stand for a variety of meanings and constructions, which we are going to describe below. The following examples, in Taqbaylit, provide an overview of the main oppositions.

We can observe that negative and positive identificational predication are symmetrical, with an invariant negative form preceding the copula and the unmarked NP. On the other hand, the positive existential predication is verbal and involves verb 'be, exist' in the perfect/-ive, whereas the negative existential predication involves an invariant form.

2. The terminology in Berber studies is "Free" versus "Annexion" state or case. The question as to whether Berber has cases is much debated. The opposition is between an unmarked form and a marked one, but neither the opposition Nominative/Accusative, nor that between Absolutive and Ergative accounts for the values of those forms. For a detailed study of this opposition for NPs coreferential to subject affixes, see Mettouchi (2008).

Table 1. Non-verbal negations in Taqbaylit

	Positive	Negative
EX	lla-n waman be/ PFV-3.M.PL water/M.PL.ANN 'there is water'	ulaš aman EXISTNEG water/M.PL 'there is no water'
QLF	d aman COP water/M.PL 'it is water'	mačči d aman IDNEG COP water/M.PL 'it is not water'

To predicate absence, **ulaš** is associated to an accusative clitic:

- (1) **ulaš -it**
EXISTNEG ACC/3.M.SG.
'he isn't here/home'

The existence of invariant nominal negations is in no way a peripheral phenomenon: indeed in Taqbaylit for example, the study of a conversational corpus provided us with the following counts: 65% of negative utterances were verbal, and 35% non-verbal. Among the latter, 47% were locative-existential and 53% identificational. Moreover, in all dialects, either existential or identificational negation (or both) is expressed thanks to a special form, as is shown in Table 2.

This is consistent with cross-linguistic generalizations, such as those made by Horn (1989: 451): "The negator used in nonexistence statements and other verbal environments is often formally distinct from the one used in negative identity statements and/or for constituent (especially nominal) negation".

Table 2. Non-verbal markers

	Existential	Identificational
Taqbaylit (West)	ulaš	mačči
Taqbaylit (East)	ulaš	mačči, atthā
Tashawit	ud-illi, ulliṣ	lišid, ixdā
Tuareg (Ahaggar)	aba	ur giy
Tuareg (Aïr)	ba	ur ge
Tarifit	u(r)...(ša) ulaḥ	ur-id, ulid u-ḡi-ša
Tashelhit	laḥ	ur-d, maši
Tamazight	ur	ur-id
Ghadamsi	wel d	ad/awas

There is debate on the borrowed or original status of those markers. For instance, Taqbaylit *mačči*, 'it is not', is considered to be an Arabic loanword, but *ulaš* is probably the contraction of Berber *ur yalli ša*³, *š* being common to Arabic and Berber, but derived in Berber from *kra*, thing, and in Maghreban Arabic from classical Arabic *šay'an*, thing (Brugnatelli 1987: 56).

Table 2 shows that depending on the dialects, existential negation can be realized either like sentential negation (*ur*) or as a special form. The various cases correspond to different stages of grammaticalization. Croft (1991: 6) postulates a negative-existential cycle from Type A to Type C: "In Type A, the negation of the existential predicate is performed by the verbal negator. In Type B, there is a special negative existential predicate, distinct from the verbal negator. In Type C, there is a special negative existential predicate, which is identical to the verbal negator. [...] we hypothesize a negative-existential cycle, in which a special negative existential form arises (A > B), comes to be used as a verbal negator (B > C), and then is supplemented by the positive existential predicate in its existential function, restoring a 'regular' negative+existential construction (C > A)".

Berber languages appear to be situated in-between stages A and B. Stage A is represented by Tamazight and Ghadamsi, stage A-B by Tarifit and Tashawit, stage B by Taqbaylit, Tashelhit and Tuareg.

Tarifit, with both *u(r)...*(*ša*) and *ulaš*, illustrates the evolution from stage A to stage B: "In the synchronically variable stage A-B, a special existential negative form, usually but not always a contraction or fusion of the verbal negator and the positive existential form, is found in addition to the regular existential negative form" (Croft 1991: 7).

1.2 Functions

Non-verbal negations are used mainly for constituent negation, focalisation and quantifier negation. The following examples⁴ present such negations in pairs, in two Southern dialects.⁵

Tuareg:

- (2) *aba ha:k erad*
EXISTNEG DAT/2.M.SG. wheat
'you have no wheat (there is no wheat for you)'
- (3) *nək a:ləs, ur giy taməɣ*
I man IDNEG woman
'I am a man, not a woman'

3. *ur*: NEG, *y-əlli*: 3SM-be/NPFV, *ša*: thing (>*kra*).

4. Examples 2 to 5 are borrowed from Galand (1994: 178). The glosses are ours.

5. For Northern dialects, see the Taqbaylit examples above, and under (6) and (7).

Tashelhit

- (4) *laḥ as tafukt*
EXISTNEG OBL/3S sun
'he could not see the sun anymore (there was no sun for him)'
- (5) *ur D Ihja*
IDNEG Yahia
'It is not Yahia'

Identificational negation is used to focalize constituents in negative clefting. The following examples are in Taqbaylit:

- (6) *mačči d argaz i d'iri*
IDNEG COP man REL COP'bad
'it was not the husband that was bad (= it was something else)'

And also for sentential negation, in rejections:

- (7) *mačči nək ad xəddm-əy nitənti ad smuqul-ənt*
IDNEG me Pot work/IPFV-1S them/F Pot watch IMPF-3.PL.F
'No way I'll be working while they'll be watching'

On the other hand, existential negation provides the basis for the derivation of negative quantifiers. In Taqbaylit, eight such quantifiers are listed by Chaker (1978: 170–171), all formed on the basis *ula-*: *ulaḥed* ('no one', > *hed*, 'person'), *ulanda* ('nowhere', > *anda*, 'where'), *ulansi* ('no way through' > *ansi*, 'through where'), *ulayyər* ('no reason', > *ayyər*, 'why, what for'), *ulamək* ('no way', > *amək*, 'how'), *ulawumi* ('to no one/nothing', > *umi*, 'to whom, to what'), *ulawukud* ('with no one', > *ukud*, 'with whom'), *ulawuyur* ('at no one's place', > *uyur*, 'at whose place').

The following example, taken from an oral tale in Taqbaylit, shows how those non-assertive forms are used.

- (8) *t-əzzi i wudɣay nni ulansi*
3SF-turn/PFV to rock/ANN ANAPH EXISTNEG-through-where
'she (the witch) turned around the rock, and (finding) no way
- s t-əkk, t-ruh*
DAT/3SM 3SF-reach/PFV 3SF-go/PFV
to reach her (the little girl), she left.'

1.3. Semantics

The semantics of those non-verbal negations could be summarized as follows: identificational negation indicates conflicting views on a given entity. On the other hand, the

6. This example is borrowed from Chaker (1978: 240).

semantic characteristic of existential negation is to express the lack of coincidence between assessment of a situation or event, and prior expectations. This opposition corresponds to the distinction between *thetic* and *categorical* judgements exposed in Sasse 1987, after Brentano & Marty (Marty 1918). In that perspective, a categorical judgment is “constituted of two successive acts: naming an entity and making a statement about it” (Sasse 1987: 512), and a *thetic* judgement, “merely express[es] an event or a state situation” (Sasse 1987: 512). In Sasse’s terminology, the former “contain[s] a predication base about which some state of affairs is predicated” (1987: 511) while the latter “[is a] simple nonpredicative assertion of a state of affairs” (1987: 511).

On semantic grounds and in another theoretical framework, it is the same dichotomy which Culioli (1988: 112) considers to be at the heart of the cognitive operation of negation: “Il existe une opération primitive de négation liée d’un côté à la valuation subjective (*bon/mauvais*, *d’où rejet*, *refus*) et de l’autre à la localisation spatio-temporelle (*présence / absence*; *vide*; *apparition / disparition*; *itération*)”.

Such a repartition between *thetic* (existential) and *categorical* (identificational) negation is encountered in many languages of the world, such as for instance Central Pomo (North California) or Yoruba (Kwa, Niger-Congo) (Mettouchi 2003). It seems however that North-West Africa is particularly rich in those forms and oppositions, and this may reflect the dominant role of focalization and topicalization strategies in the languages of this geographical area.

2. Verbal negation

As we indicated in our first part, verbal negation is more frequent than non-verbal negation in everyday use. It is, however, possible to find in the verbal system the same dichotomy between *thetic* and *categorical* predications, if we take into account the interaction between the negative particle and the aspect of the verb (Mettouchi 2003 & 2006). Indeed, the verbal system of negation is characterized in Berber by a reduction of aspectual distinctions in the negative subsystem. But before we investigate the situation in various dialects, let us describe the negative markers themselves.

2.1 Markers

The most widespread marker is the preverbal negator *wər/ur* and its variants *wəl* and *wə*. This negator is positioned either between S and V (for the SVO sentences), or in first position (for the VSO sentences). Berber patterns (SNegVO and NegVSO)⁷ are therefore among the most common typologically (cf. Dryer 1988: 94, 97).

7. For the dialects that exhibit optional double negation, the patterns are SNegV(Neg)O and NegV(Neg)SO.

2.1.1 *Wər, Wəl, Wə*

Wər is a particle, it is invariant and preverbal.

- (9) *ur yə-kriz*
NEG 3.M.SG-plough/NPERF
‘he didn’t (hasn’t) plough(ed)’

Its origin is uncertain. Brugnatelli (2006) presents its extension as follows: the most widespread form is *wər/ur* (Taqbaylit, Tashelhit, Tarift, part of Tamazight, Tuareg...). In some dialects, the corresponding form is *wəl* (Ghadamès, Mzab, Nefusi, and some Central Moroccan dialects). Finally, some dialects have *wə*- (Wargla, Mzab, Zwara, Jerba), *wa* (Gurara), *u* (Tarift), *u(d)* (Tashawit, Jerba, Mzab). Inside dialectal areas, and in the speech of the same speaker, variants can appear whose motivations have not been studied in depth yet.

The question triggered by those variants is, which particle is the original one. According to Chaker (1996: 12), *wər/ur* is the original form, and *wə/u* is a reduced variant, “cette hypothèse [...] suppose la chute – très classique en berbère – d’une semi-voyelle /w/ à l’initiale du verbe (racine WR < R)”. In this view, *wər* is a former state verb meaning ‘be empty’. This hypothesis is based on Basset (1940: 202–222), who postulated a morphological and semantic relationship between the privative prefix *war*⁸ ‘without’, and the negative particle *wər*. Loubignac (1924: 177 & 487) found traces of the verb *ar*, which means ‘be empty, be desert’ in Tamazight. Prasse (1972: 244), studying the behaviour of the participle in Tuareg, gives arguments in favour of this hypothesis. Having noticed that in negative relative clauses the negative morpheme is *wəran* in the masculine and *wərat* in the feminine, he concludes his demonstration, based on morphemic boundaries, by asserting the former verbal status of the particle *wər*.

Those claims are consistent with studies on the grammaticalization of negation. Payne (1985: 223) indeed notes that “in many cases negative particles which are conditioned in this way by the tense or mood of the predicate⁹ turn out to be reduced forms of negative verbs which have lost their person and number inflections”. The preverbal position of the negator in Berber might be linked to this former verbal nature: as Givón (1984) argues, negatives precede the verb in VO languages because they were originally verbs.

Another standpoint is held by Galand (1994: 176). According to him, *u* is the basic negative particle, and *-r* comes from the indefinite *ara*, ‘thing’: “l’existence et la fréquence de la forme *u* m’inciteraient aujourd’hui à voir en elle la base de la particule négative. [...] Je ne crois donc pas que *u* soit une forme réduite de *ur*. C’est plutôt la forme en *-r* qu’il convient de justifier à partir de *ur*, et non l’inverse. [...] on peut se demander si le berbère *ur* n’inclut pas l’ancien nom *ara*, ‘chose’, qui se serait agglutiné à la particule négative.”

8. For instance in *war isem* ‘without-name’ (ring finger), in Taqbaylit.

9. As is the case for Berber, which has special negatives in the aorist (see 2.1.4. & 2.2.2.).

Finally, Brugnatelli (2006) proposes another hypothesis, which derives the *-r* in *ur* from a preposition, *ar* ('to, till'): "j'ajoute aux autres éléments de réflexion précités la constatation qu'il semble exister un rapport assez étroit entre la forme de la négation et celle de la préposition *ar* 'jusqu'à'. En fait, d'habitude les parlers qui ont une négation *wəl* ont aussi une préposition *al*. Et il ne faut pas oublier qu'en kabyle il existe une variante phonétique *a*, tout comme il y a *u* pour *ur*. On peut se demander si les deux éléments grammaticaux ont subi les mêmes modifications phonétiques, ou bien s'il y a eu une agglutination de ladite préposition à une base de négation *u*."

Other scenarios are also possible. For instance, Dryer (1988: 112) presents the semantic bleaching of more specific negative adverbials with meanings like 'never' etc. as a more plausible source of negators than former negative modality verbs.

2.1.2 Derived markers

Some adverbials are indeed related to the preverbal negator *wəl*. In Taqbaylit, these markers are *wərgin* 'never', *wəread* 'not yet', and *mazal* 'still/yet'.

The former is followed either by the negative perfect/ive, or by the preverbed aorist. The second one is always followed by the (negative) perfect/ive, and the latter is an Arabic loanword (> *ma zāl*, 'he didn't cease'), which accepts all aspectual forms.

- (10) *wərgin s sli-y*
never DAT/3SG hear/NPFV-1SG
'I never heard him'
yə-ssugot aməslay
3MSG-make-abundant/PFV word
be so talkative'
- (11) *wəread d yə-kfi aməslay*
not-yet Prox. 3MSG-finish/NPFV word
'the discourse was not finished yet,
t-ufeg tyenjawt zdat-i
3MSG-fly/PFV spoon/ANN in-front-of-me
and the spoon flew in front of me'
- (12) *nekwni mazal nətṭyafar*
us not-cease 1PL-visit/1PFV
'as for us, we still practise the family visit'
- (13) *mazal y-arkid wallay-is*
not-cease 3SGM-be calm/NPFV brain/ANN-POSS
'she wasn't fully awake yet (her brain was not calm yet)'

In those last two cases, we can see that it is interaction with aspect which provides telic ('not yet', perfect/-ive) or continuative ('still', imperfective) interpretations. No adverbials are needed.

Mazal is also grammaticalizing as an adverbial: it is sometimes encountered with discontinuous negations, with the sole meaning of 'yet'.

2.1.3 Clitic movement

In all dialects, verbal negation triggers clitic movement. This phenomenon occurs after the preverbal negative marker *wər* or one of its variants, but also after aspectual or modal preverbs, and in relative and interrogative clauses. The unmarked order, in declarative, positive, main clauses is:

- (14) *y-əfka yas t iD*
3MS-give/PFV DAT/3S ACC/3MS Prox.
'he gave it to her/him'

In the negative, the whole block of clitics is appended to the preverbal negator *ur*:

- (15) *ur s t iD y-əfki*
NEG DAT/3S ACC/3MS Prox. 3MS-give/NPFV
'he did not give it to her/him'

This movement does not occur with negative morphemes other than *wər* or its variants. For instance, in Taqbaylit oaths with *ma*, no such displacement is possible. Similarly, in Eastern Taqbaylit, the variant *attha* (Rabhi 1996: 28) does not trigger clitic climbing.

- (16) *attha usa-nt D*
NEG arrive/PFV-3FPL Prox.
'they haven't arrived (didn't arrive)'

It is interesting to note that neither *ma* nor *attha* are associated with negative aspectual forms (see 2.1.5.2.). Clitic movement is therefore part of the general asymmetry of negative subsystems compared to positive ones. The common point between all the contexts triggering clitic climbing seems to be the modal nature of the judgement, which is no straightforward assessment of a referential situation. In all cases, predication is filtered through the utterer's viewpoint.

2.1.4 The negative participle

Participles are used in relative clauses where the subject is relativized: in Taqbaylit, this form is invariable as far as number, person and gender are concerned, whereas in Aïr Tuareg for instance (Galand 2002 (1974): 131), it distinguishes masculine singular, feminine singular, and plural. When preceded by a negative marker, the participle is morphologically different, in a way that is reminiscent of the clitic movement described in 2.1.2: the suffixed mark becomes a prefixed one, with minor changes depending on the dialects. The following examples are in Taqbaylit.

- (17) *argaz*¹⁰ *y-əmmut-ən*
 man die/PFV.PART
 'the man who died'
- (18) *argaz ur n-əmmut ara*
 man NEG NPART-die/NPFV POSTNEG
 'the man who didn't die'

Tables 3 and 4 present the data in a more systematic way in Tuareg and Taqbaylit. The dotted line represents the aspectually marked verbal stem. It is surrounded by participial affixes.

Such alternations show that negation is not a surface operator, and that it interacts with deeper levels of linguistic organisation.

2.1.5 Reinforcement particles

In Tashelhiyt, Tuareg, Siwi, Zenaga, and more generally in the southern Berber area, negation is realized only by the preverbal morpheme *wər/ur* or one of its variants. However, other dialects, especially in the North, have grammaticalized a postverbal indefinite. Brugnatelli (1987) describes various situations, that can be summarized as follows: the most widespread configurations are either dialects with only a preverbal negator, or dialects with a discontinuous negative marker. Rarer are dialects with only a postverbal negator (*kà* or *kéra* in Awjila), which has evolved from a discontinuous marker.

Table 3. The positive participles in two dialects

Aïr Tuareg	sg.	pl.	Taqbaylit	sg.	pl.
masc.	y-----n	-----nin	masc.	y-----n	
fem.	t-----t		fem.		

Table 4. The negative participles in the same dialects

Aïr Tuareg ¹¹	sg. / pl.	Taqbaylit	sg. / pl.
masc.	n-----	masc.	n-----
fem.		fem.	

10. Here, *argaz* ('man') could be replaced with *tamettut* ('woman', feminine) or *irgazən* ('men', plural) without altering in any way the form of the participle. This is also true for example 18.

11. In some dialects, such as Ahaggar Tuareg, the negative participle maintains the gender opposition in the singular.

2.1.5.1 Etymology

The question as to whether those postverbal particles are derived from former Berber nouns or Arabic ones was posed by Laoust (1932: 285) "nombre de parlers, particulièrement les Berabers, utilisent *ša* et *ka*; la question se pose de savoir si l'expression est empruntée à l'arabe *šay'* (en maghrébin *šāi*), ou dérive du berbère *kra*". It is not always easy to answer such questions: Berber and Semitic both being subfamilies of Afroasiatic, some markers may be derived from a common protolanguage. The presence of the particle *šera* in Nefusi, and *šara* in Jerba, reinforces Brugnatelli's claim that all forms can be derived from a common Berber form **kara(t)*: "Da un punto di vista fonetico, quindi, nulla esclude la possibilità di una derivazione anche di *-š(a/i)* da una base berbera **kara(t)* (o sim.) 'qualche cosa', che sarebbe così stata usata in tutta la fascia settentrionale dei parlari come particella negativa postverbale" (1987: 56). The grammaticalization of this postverbal particle in Berber may have been reinforced by the existence of *ma...š* discontinuous negations in Arabic, as is suggested by Galand (1994: 177) "on pourrait être ici en présence d'un phénomène de convergence entre une donnée du fond berbère et un élément arabe; le cas ne serait pas unique".

Beside the most widespread postverbal negator (an evolution of *karat*), a number of expressive postverbal indefinites can be encountered, with meanings such as 'drop', 'onion', etc. The following example is in Eastern Taqbaylit:¹²

- (19) *ur i-swi tibselt*
 NEG 3.M.SG-be worth/NPFV onion
 'he isn't worth a dime! (Lit. he isn't worth an onion)'

In this case, the standard postverbal negator is excluded.

2.1.5.2 Restrictions

When a postverbal marker is used, there are generally strict appearance conditions. For Taqbaylit, they are listed and analyzed in Mettouchi (1999): presence of an indefinite argument, which therefore acquires negative value, negative coordination, negative oaths, restrictive versus descriptive relative clauses, exclusive versus collaborative attitude towards the interlocutor, etc. We will not illustrate all those contexts, but will only treat the cases which allow some characteristic features of negation to be exposed.

- (20) *axaṭar ma ɣra-nt atəs*
 because if learn/PFV-3.PL.F a-lot
*ur ttwali-nt yiwən*¹³
 NEG sec/IPFV.3.PL.F one
 'because if they were too learned, they wouldn't show respect to anyone
 (= they would look disdainfully upon everyone)'

12. Borrowed from Rabhi (1996: 31)

13. Borrowed from Chaker (1978 (corpus): 73).

In the preceding example, the presence of the indefinite *yiwən* 'one' prevents the use of the postverbal negator *ara*.

The following example is another syntactic context excluding the postverbal negator in dialects such as Taqbaylit, which has such a marker.

- (21) *ur uli-n yəxxamən ur*
 NEG climb/PFV-3PLM houses/PL.ANN NEG
t-ərbiḥ tfəllaḥt
 3FS-produce/PFV agriculture/ANN
 'neither do houses grow (=are houses built), nor does agriculture produce'

Since whole predication is negated and coordinated, *ur* is used before each verb. For negative coordination with a focus on nominals, *ur* is used before the verb, and *la* before the nouns:

- (22) *idammən ur d wwi-n*
 blood/PL NEG Prox. take/NPFV-3MPL
la abrid la sin
 Conc. way Conc. two
 'the blood flew in streams (took not one way, nor two, but all of them)'

The etymology of the particle that is used for this type of coordination has not been studied, to our knowledge. Our hypothesis is that it is the same particle as the one which precedes the imperfective aspect in its progressive reading (concomitance).

Another context excluding the use of the postverbal negator in Taqbaylit is oaths and forceful statements:

- (23) *wəlləh ur t y-əčči!*
 by-god NEG ACC/3MSG 3MSG-eat/NPFV
 'I swear he didn't eat it!'

It must be noted that negative oaths can also contain marker *ma* 'if', which is not a negative morpheme:

- (24) *wəlləh ma y-əčča t!*
 by-god if 3SM-eat/PFV ACC/3MSG
 'I swear he didn't eat it!'

In that case, unlike *ur*, *ma* neither triggers clitic climbing nor the use of a negative perfect. This morpheme has been thought to be an Arabic loanword, but Bentolila (1988: 63) argues against this hypothesis 'Mais la comparaison des parlers et l'existence en kabyle même d'un subordonnant hypothétique *ma*, "si", nous incitent à y voir un fonctionnel et à interpréter les tours avec *ma* comme ceux du français avec *si* (v. supra: du diable si je la connaissais!)'.

2.2 Aspect

Aspect in Berber is marked with vowel alternations, gemination, or prefixation. Except for Tashelhit, which is said to possess a recently acquired tense category as well as aspect (Leguill: 1982), the other dialects are genuinely aspectual: imperfectives as well as aorists and perfects/perfectives can have a past, a present or a future interpretation, depending on the context.¹⁴

Four aspectual bases are common to all dialects: perfect/-ive, negative perfect/-ive, aorist, and imperfective. In some dialects, such as Aïr Tuareg, perfect and perfective are distinct. In others, like Tarift or Zenaga, there is a negative imperfective.

The existence of specific aspectual forms in negative contexts is a salient feature of Berber, and is shared by other African languages.

2.2.1 Taqbaylit

The presentation of Taqbaylit data in detail allows a more precise view on the interaction of negation and aspect. Despite the fact that it is pragmatically difficult to consider that there should be an 'equivalent' negative form for a positive form, we can schematize the oppositions as follows:

Table 5. Taqbaylit aspectual bases (roots *DD* 'come', and *KRZ*, 'plough')

Aorist	Perfect/-ive	Negative perfect/-ive	Imperfective
-ddu-	-dda-	-ddi-	-ttəddu-
-krəz-	-krəz-	-kriz-	-kərrəz-

Table 6. Aïr Tuareg aspectual bases (roots *RTK*, 'fall', and *G*, 'do')¹⁵

Aorist	Perfect	Perfective	Neg. Perf	Imperf.	Neg. Imperf
-rtək-	-rtak-	-rtaak-	-rtek-	-raattək-	-rəttək-
-g(u)- ¹⁶	-ge/a/ə-	-gee/aa-	-ge/a/ə-	-taagg(u)-	-təgg(u)-

14. For a study of those values in Taqbaylit, see Mettouchi (2000) for the perfect/ive, Mettouchi (2002) for the aorist, and Mettouchi (1998) for the imperfective.

15. The data are borrowed from Galand (1974, Reprint 2002: 125–127).

16. Vowel /u/ appears in forms where there is no personal suffix; vowels *e/a/ə* alternate depending on the personal affix.

Table 7. Taqbaylit aspectual oppositions

	Positive	Negative
Taqbaylit	optative (= ad + aorist) imperative (= aorist) ad + aorist la/ad/Ø + imperfective perfect(-ive)	a wər + aorist ur + imperfective ur + negative perfect(-ive)

Thus, for instance, the negative 'equivalent' of (25) in Taqbaylit is (26):

- (25) ad i-ddu yidəs
Pot. 3MS-come/AOR with-him/her
'he will accompany him/her'

- (26) ur i-təddu yidəs
NEG 3MS-come/IPFV with-him/her
'he won't accompany him/her'

In quantitative terms, counts¹⁷ conducted on spoken and written (neo-literature) corpora yielded the following figures, in the negative subsystem:

- written corpus: 69% negative perfect/ive (two-thirds are marked forms)¹⁸, 30% imperfective, and 1% aorist (optative).
- spoken corpus: 63% negative perfect/ive (three quarters are marked forms), 37% imperfective.

The repartition of aspectual forms in the positive subsystem is the following:

- written corpus: 70% perfect/ive, 10% imperfective (with 1,5% preverbed forms), and 20% aorist (16% preverbed).
- spoken corpus: 53% perfect/ive, 16% imperfective (no preverbed forms), and 30% aorist (all preverbed).

17. The detailed counts can be found in Mettouchi (1995: 134–137). The written corpus is a 184-page novel (a total of 372 verbal negations), and the conversational corpus on which the counts were performed is 30 minutes long (a total of 72 verbal negations).

18. Not all verbs distinguish perfect/ive and negative perfect/ive. Chaker (1978: 126) gives the following estimate: 45% of Taqbaylit verbs have a morphologically distinct negative perfect/ive. But those verbs are frequent in actual language use (Mettouchi 1995: 136). Here, all perfect/ives following a preverbal negator have been termed negative perfect/ives, and the proportion of marked forms added between brackets.

Table 8. Aspectual oppositions in Taqbaylit

	Positive	Negative
Taqbaylit	optative+imperative (= (ad +) aorist)	a wər + aorist 1%-----0%
Figures	4%-----1%	
left: written	ad + aorist	ur + imperfective
right:	16%-----30%	30%-----37%
spoken	la/ad/Ø + imperfective 10%-----16%	
	perfect(-ive) 70%-----53%	ur + negative perfect(-ive) 69%-----63%

Those figures are of course to be taken as indicators, since not all spoken genres have been studied, but they show that:

- the aorist is almost totally excluded from the negative subsystem, whereas it represents between one fourth and one third of verbal predicates in the positive.
- the negative contexts are favoured contexts for the imperfective.
- the proportion of perfect/ive forms is roughly comparable in positive and negative contexts.

A semantic and pragmatic study of negative utterances enabled us (Mettouchi 1995) to establish the presuppositional nature of both the negative perfect/ive and the imperfective, and to explain thus their dominance in the negative contexts. The verbal system being based on aspect and not on tense, position in time relative to the speaker is not a dominant factor for the choice of the verbal form. What is first and foremost is the way the situation being referred to is construed. And in this respect, as shown in Mettouchi (2003) the interaction of negation and aspect allows the construal of two types of negative judgements:

- a thetic one, in which the expected situation is assessed as 'not being the case',
- a categorical one, in which a predication is attributed to a subject (or more generally, a predication base) in opposition to a competing viewpoint.

Here are examples of the two types of negative judgements, involving root WT, 'hit', with wwit as negative perfect/-ive, and kkat as imperfective:

- (27) ur t id i-wwit ara
NEG ACC/3MSG Prox. 3MSG-hit/NPFV POSTNEG
'he didn't hit him (contrary to expectation)'

- (28) wid nni ur kkat-ən ara
those anaph. NEG. hit/IPFV-3MPL POSTNEG
'those guys, they didn't (tend to) beat/batter (the prisoners)'

Those sets of values are a semantic argument in favour of the hypothesis (Mettouchi 1995) according to which the preverbal negator has scope on the core values of aspectual forms, in the same way as aspectual or modal preverbs do in the positive subsystem. Indeed, it is important to note that preverbs are excluded from the negative subsystem in Taqbaylit. *ur* and those markers are therefore in complementary distribution.

Pragmatic-oriented studies have shown that negative utterances have their own values, which clearly differ from their positive 'counterparts' (Contini-Morava 1989). The interest of languages such as Taqbaylit is that they encode those functional and semantic differences in the forms themselves, and in their distribution.

2.2.2 Other dialects

The facts described above for Taqbaylit are not valid for the whole of Berber. A study of each dialect would be necessary to assess how negative utterances operate on a semantic and pragmatic level. Since this has not been done yet, we will only list a few distributional and descriptive facts.

For instance, the aspectual asymmetry found in Taqbaylit is not realized in Tashelhit, which is currently grammaticalizing tense distinctions. As is shown by the table below, preverbs appear in the negative subsystem. The oppositions are not totally symmetrical however, since the order of preverbs varies in combination with *ur* on the basis of a modal (irrealis/realis) distinction.

It would be interesting to check whether, on a larger sample of languages, tense-oriented or tense-drifting languages indeed tend to have regularized positive/negative oppositions, in contrast to aspect-oriented languages.

The study of other dialects allows us to make a few additional remarks.

Table 9. Aspectual oppositions in Tashelhit

Tashelhit (Galand 1994)	optative (= <i>ad</i> + aorist)	<i>ad ur</i> + aorist
	imperative (= aorist)	<i>ad ur</i> + aorist
	<i>rad</i> + aorist	<i>ur rad</i> + aorist
	<i>ar/ Ø</i> + imperfective	<i>ur (a)</i> + imperfective
	perfect(-ive)	<i>ur</i> + negative perfect(-ive)

Table 10. Aspectual oppositions in Tarifit

Tarifit (Lafkioui 1996 and Kossmann 2000)	optative (<i>ad</i> + aorist)	<i>a war</i> + aorist
	imperative (aorist)	<i>ur</i> + negative imperfective
	<i>ad</i> + aorist	
	imperfective	
	perfect(-ive)	<i>ur</i> + negative perfect(-ive)

Table 11. Aspectual oppositions in Aïr Tuareg

Aïr Tuareg (Galand 2002 (1974))	optative (<i>ad</i> + aorist)	–
	imperative (= aorist)	<i>ur</i> + negative perfect(-ive)
	<i>a</i> / <i>ad</i> + aorist	<i>ur ze</i> + aorist <i>ur he</i> + aorist
	(<i>a/ad</i> +) imperfective	<i>ur</i> + negative imperfective
	perfect	<i>ur</i> + negative perfect(-ive)
	perfective	

Table 12. Aspectual oppositions in Zenaga

Zenaga (Taine-Cheikh ¹⁹)	optative (= aorist)	<i>aghāy wār</i> + negative perfect(-ive)
	imperative (= aorist)	<i>ad wār</i> + aorist / <i>wār</i> + negative imperfective
	<i>ad</i> + aorist	
	imperfective	
	perfect(-ive)	<i>wār</i> + negative perfect(-ive)

In all dialects, there is a special form for the negative optative, where the negator is under the scope of a particle, which is sometimes *ad*, sometimes *a*. In some dialects, a negative imperfective can be found. This form is derived from the positive imperfective (Kossmann 1989).

Another general tendency is the relative symmetry observed in the domain of the perfect/-ive: to a positive perfect or perfective corresponds a negative perfective. This cleartcut opposition might be linked to the semantics of the perfect/-ive aspect: this form has mostlythetic uses, and the opposition between being and not being the case is a binary one. It may be interesting at this point to underline the fact that existential sentences are systematically expressed by the perfect/-ive of the verb *ili*, 'be, exist'.

The general tendency, despite a few differences in the irrealis, is to use imperfective forms as 'counterparts' to *ad* + aorist forms. We must bear in mind that the imperfective is a secondary aspectual form which is morphologically derived from the aorist, and was introduced in the verbal system at a later stage than the other aspectual forms, according to a general pattern analysed in Cohen (1989). There is therefore a derivational link between aorist and imperfective, which parallels to a certain extent the link between perfect/ive and negative perfective, with the restriction that the imperfective is widely used in positive contexts, whereas the negative perfect/ive is restricted to negative or counterfactual contexts.

19. Personal communication. I take full responsibility for possible errors.

Conclusion

The survey which we have conducted in this article underlines the variety of situations but also the common features of negation in the Berber dialects. Such a vast territory, in which dialectal areas are separated from each other, was bound to provide us with a variety of forms. Nevertheless, the unity of Berber as far as negation is concerned is unquestionable: it lies in the existence of non-verbal negations which encode the distinction between locative-existential and identificational-qualificational predications. It also lies in the existence of very clear-cut aspectual asymmetries with respect to the positive/negative opposition. Moreover, the formal identity of the preverbal negator in the whole Berber area implies that this marker is a very ancient one, whereas postverbal elements are more recent.

All those features are shared to a certain extent by many languages of North-West Africa (Platiel, 1990). They are also attested worldwide, in various phyla (Kahrel and Van den Berg 1994; Hovdhaugen and Mosel, 1999). However, they do seem to cluster in some areas. It might be the case that such areas are also characterized by other linguistic features such as the importance of the topic/focus distinction, and the predominance of aspectual over tense or mood distinctions in the verbal system.

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List of abbreviations used in the article

SG	singular	OPTNEG	negative optative marker
PL	plural	COP	copula (invariant d)
F	feminine	PFV	perfect or perfective aspect
M	masculine	NPFV	negative perfective
ANN	NP in the “annexion state” (marked). No abbreviation is used when the NP is in the ‘free’ or ‘absolute’ form.	IPFV	imperfective aspect
		AOR	aorist
		POT.	particle with future, potential, tendential etc. values
ACC	accusative clitic	(A, AD)	
DAT	dative clitic	CONC.	aspectual particle marking concomitance (la)
1, 2, 3	first, second, third person	PROX.	proximal particle (d)
POSS	possessive	ANAPH.	anaphoric determiner (nni)
NEG	préverbal negator	PART	participle
POSTNEG	postverbal negator	NPART	negative participle
EXISTNEG	locative-existential negation	REL	relativizer
IDNEG	qualificational-identification-al negation		