Zenaga<br>Catherine Taine-Cheikh

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# Zenaga <br> Taine-Cheikh 

## 1 Introduction

Zenaga is an endangered language spoken in Mauretania. It builds with the tetserret variety spoken in Niger (Attayoub 2001; Lux 2013) the South-West Berber group, whereas the Tuareg varieties spoken in the East (Mali, Burkina Faso, Niger and Algeria) form a distinct group. Among the varieties spoken in the North, several groups have been identified. Among those, the Zenata group which is spoken in the Moroccan Riff and in many Algerian oases. The classification of the Northern group remains topic of discussion. Some Berber researchers claim that these varieties build a dialectal continuum (Chaker 1995:7-10). Other researchers, on the other hand, distinguish a various number of groups: while Aikhenvald (1988) distinguishes two groups for the Northern Berber (excluding the Eastern varieties), Kossmann (2013:16-25) identifies eight groups, four of those in Egypt and in Lybia (apart from Zuwara).
Zenaga has kept the main features characteristic of the Berber family. It also has, however, numerous distinctive features whose origin is probably due to its geographically outlying position (map X).

## 2 Phonology

### 2.1. Vowels

Zenaga belongs to the Berber languages in which vowel length is distinctive such as Tuareg and Ghadames Berber (Taine-Cheikh 2005a: 45-7). The three long vowels are $/ \overline{\mathrm{a}} /$, $/ \overline{\mathrm{l}} /$, $/ \overline{\mathrm{u}} /$. There are also three short vowels. However, /i/ and /u/ are marginally distinctive, i.e. the functional load of the contrast between these two vowels is low (the contexts in which /i/ and $/ \mathrm{u} /$ appear are almost always different). There is, therefore, basically a binary contrast between an open vowel /a/ (with allophonic variants [a], [æ], [œ], [ $\varepsilon$ ], [ $\supset$ ] and a central vowel / / /whose realizations can tend towards [i] or towards [u]). The contrast between the open vowels (/a/ and $/ \bar{a} /$ ) and the other vowels (central and close ones) has a high functional load, with all sequences not only being possible but also abundantly used in morphology. In addition, there are two diphthongs, /aw/ and/ay/ (which can in some rare cases be realized as [ $\overline{0}$ ] and [ $\overline{\mathrm{e}}]$ ).

### 2.2. Consonants

Table 1 presents the consonant inventory, whereby consonant phonemes with a low frequency are put between parentheses.

Table 1

|  | Empha tic | Labial | Dental | Prepala tal | Postpal atal | Velar | Pharyngeal | Larynge <br> al |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Stop voiceless | $\begin{aligned} & - \\ & + \end{aligned}$ |  | $\begin{gathered} \mathrm{t} \\ (\mathrm{t}) \end{gathered}$ | $\mathrm{t}^{\text {y }}$ | k | q |  | $?$ |
| Stop voiced | $+$ | b <br> (b) | $\begin{aligned} & \mathrm{d} \\ & \mathrm{~d} \end{aligned}$ | $\mathrm{d}^{\mathrm{y}}$ | g |  |  |  |
| Fricative voiceless | $+$ | $\begin{gathered} \text { f } \\ (f) \end{gathered}$ | $\begin{gathered} \mathrm{s} \\ (\mathrm{~s}) \end{gathered}$ | š |  | (x) | (¢) | (h) |
| Fricative voiced | $+$ | $\begin{aligned} & \text { (v) } \\ & \text { (y) } \end{aligned}$ | $\begin{aligned} & \mathrm{z} \\ & \mathrm{z} \\ & \hline \end{aligned}$ | ž |  | $\gamma$ | (h) |  |
| Nasal | $+$ | $\underset{(\mathrm{m})}{\mathrm{m}}$ | n | $\mathrm{n}^{\mathrm{y}}$ |  |  |  |  |
| Trill | $\begin{aligned} & - \\ & + \end{aligned}$ |  | $\mathrm{r}$ |  |  |  |  |  |
| Lateral | $+$ |  | $\begin{gathered} \text { ín } \\ (\underline{l}) \end{gathered}$ |  |  |  |  |  |
| Semi-vowel |  | w |  | y |  |  |  |  |

The consonant system is based on three oppositions: voicing, emphasis1 (a characteristic feature of the Afroasiatic phylum) and length. On the whole, the Zenaga system reflects the common system of Berber languages (Galand 1988:215, Chaker 1995:11), but at the micro level it manifests a highly original system due both to its conservatism and to its various innovations (Taine-Cheikh 1999, 2003a).

### 2.2.1 Voicing opposition

Voicing plays a rather important role. There are, however, cases of neutralisation: some phonemes are voiced in specific environments (/t/ in intervocalic position and /k/ in final position). On the other hand, among rare phonemes, three appear to originate partially from a contextual devoicing of the corresponding voiced consonant ( $/ \mathrm{d} />/ \mathrm{t} / \mathrm{h} / \mathrm{z} />/ \mathrm{s} /$ and $/ \mathrm{y} />/ \mathrm{x} /$ ).

### 2.2.2 Emphasis opposition

Zenaga, like all other Berber languages, has two main emphatic phonemes, (/ḍ/ and /z/). The other emphatic consonants often appear to arise as contextually determined emphatic variants. Their status as phonemes (either rare or with low frequency) results from the fact that some of their occurrences is not contextually conditioned. Note that the labiovelarization of labial and bilabial consonants correlates with vowel backness ([u] for the close vowel).

[^0]
### 2.2.3 Length opposition

Apart from some rare phonemes (mainly the laryngeal consonants and the trills), length is usually distinctive for the consonants. This contrast, however, tends to be neutralized when it is only marked by a difference in length and/or tenseness. (Tenseness alone characterizes the coda position, i.e. for the main part the final position). In fact, in most cases, the length contrast between short and geminated consonants is more complex. It includes following pairs:

- a continuant and a non-continuant ([đ] vs. [dd], [đ̣] vs. [ḍd], [y] vs. [qq]),
- a voiceless interdental consonant and a voiced sibilant ([ $\theta$ ] vs. [zz], [ $\theta]$ vs. [zẓ]),
- a hushing sibilant and a hissing sibilant ([š] vs. [ss]),
- a semi-vowel and a liquid ([y] vs. [11]).

The common characteristic of these contrasts is that the short consonants tend to be more lax than the geminated consonants (apart in some particular contexts). The phonetic difference might be a real distinction in aperture or a small difference in pressure (as e.g. for the voiced hushing consonant, [ž̌] vs. [žž]). 2 Zenaga has along with several non-southern Berber languages the tendency to weaken short consonants. However, most of those languages only spirantize the dental stops which are not adjacent to a nasal (Louali-Raynal 1999).

Besides the phonetic particularities of the relation between short and geminated consonants, Zenaga is characterized by some features which are common in southern varieties of Berber (or at least in some of those varieties): a diachronic development of hissing sibilants to hushing sibilants (/s/>/s//, /z/>/ž), the presence of palatalized consonants, and a tendency to preserve the laryngeal consonants. However, in Zenaga, this tendency affects more the glottal stop than the fricative $h$ (preserved only after a nasal). Even if, historically, the fricative / $/$ / has evolved into / $/$ / (apart from exceptional cases), the origin of many occurrences of / $/$ / is a glottal stop. The other Berber languages have only kept partial or indirect traces of this laryngeal.

### 2.3 Syllable structure

Open syllables are almost as frequent as close syllables. Both extra-long syllables (with a long vowel followed by a simple coda or a short vowel followed by a double coda) and vocalic onset at the beginning of words are attested.

[^1]Syllable structure influences the realisation of consonants but, to a lesser extent, the realisation of vowels.

Lexemes in general consist of two or three syllables, sometimes they are monosyllabic and often they consist of more than three syllables (in particular inflected verbs). Stress is rarely marked and is not fixed. It is important as phrasal accent and moves towards the end of the word if clitic(s) is/are present.

## 3 Morphology

Morphological variations consist in affixation and/or vocalic alternations both for nouns and verbs. The various forms of a lexeme, and various etymologically related lexemes usually have only the ordered radical consonants in common. 3 However, phonetic evolution and alteration often impede the synchronic identification of this root. Particularly, because of the tendency of the laryngeal consonants to disappear. In Zenaga, the fricative $h$ becomes silent (except after a nasal), and the glottal stop is dropped in final position (but reappears before a suffix).

### 3.1 Nouns

### 3.1.1 Inflection

There are two genders, masculine (M) and feminine (F), and two number categories, singular ( SG ) and plural (PL). The distinction between the collective and the unity nouns is sometimes expressed by a difference in gender, e.g. m aššiymi 'fish(s)' vs. F tšiymǐ đ '(a) fish'.

Apart from rare exceptions (often pan-Berber words) like fäd 'thirst', all masculine nouns begin with a vowel (usually $/ \mathrm{a} / \sim / \overline{\mathrm{a}} /$ ): ayayär 'kid (young goat)'. In the case of feminine nouns, this vowel is preceded by the prefix $t$-: tayayärt 'female kid'.

In the singular, most feminine nouns are also characterized by a sufffix - $t$ which often assimilates to the last radical consonant: täygap 'young female kid' vs. äygäạ 'young kid'. In the plural, this suffix -t usually disappears before the plural marker, which contains a nasal. The plural marker is (in most cases) $-\partial n$ for the feminine (tiygađ̣ən 'young female kids') and än for the masculine (iygađ̣an 'young kids'). The alternation of the pre-radical vowel SG $\ddot{a} \sim a$ / PL $\partial \sim i$ is frequent, but other alternations are possible in both genders: iạ 'night' pl $\bar{a} đ ̣ a n, ~$ ižizimär 'lamb' PL $\underset{\underline{z}}{ } a^{3}$ ? märän. This shows that there is not only one plural nominal pattern (Taine-Cheikh 2006).

[^2]
### 3.1.2 Derivation

Nouns can be both derived from verbs and from other nouns.

## Deverbal nouns

- The nominal pattern with the prefix $m$ - (sometimes $n$-) gives rise to forms expressing habits, trades or properties. For example, м ämäddäwkty '(boy-)friend, husband' PL amdukkäyän, F tämäddäwkzL '(girl-)friend, wife' pL təmdukkäyzn.
- The action nouns (NA) are often masculine nouns with a close vowel like addan 'process of covering' or feminine nouns with an open vowel like täyddart 'process of becoming fat'. However, action nouns derived from complex verb forms usually have a prefix $a^{?}$ as in $a^{?}$ shbi ${ }^{2} \underline{i} i$ 'process of making sb speak'.


## Diminutives

Contrary to the other Berber languages where the diminutive is often expressed through a gender modification, Zenaga, alone, derives diminutive forms through affixes (Vycichl 1961, Taine-Cheikh 2002) ${ }^{4}$.

- M SG : prefix ay- and suffix -t (from the F SG): aydiymämt diminutive from ađiymäm 'baby',

- F SG and PL: prefix $t^{y} \bar{a}-: t^{y} \bar{a} w a ̈ z ̈ z C$ diminutive from täwäžzụ 'hen', $t^{y} \bar{a} đ a ̈ t o n ~ d i m i n u t i v e ~$ from tāton 'ewe'.


### 3.1.3 Nominal determiners

Zenaga has three sets of demonstrative clitics. Only the first set (proximal deictic expressions) varies along the number category.
Table 2

| PROXIMAL | INTERMEDIATE <br> $(+$ anaphoric reference) | DISTAL |  |
| :---: | :---: | :---: | :---: |
| SG | $-\ddot{a} đ$ | $-i^{2} \notin$ | $-\bar{a} n$ |
| PL | $-i む$ |  |  |

Other determiners exist, for example to express the indefinite: äkki 'each' (invariable) and yuđ̣an PL uđ̣anan 'another' (following the head noun but not cliticizing to it), e.g. äyi²m yựan 'another camel'.

### 3.2 Adjectives

The few existing adjectives build a specific syntactic category (Taine-Cheikh 2003b, 2014). They have no prefix and their suffixal gender and number markers differ from those of the nouns: F.SG -äđ, PL -ađ (if the last radical consonant is a glottal stop, the forms are F.SG -đäđ,

[^3]PL. -đəđ). For example 'blue, green' M.SG bäyđig, F.SG bäyđigäđ, PL bäyđigəđ.
They can be inflected like verbs, with the difference that they can only be modified by suffixed markers. For example, mazzūg-ag 'I am short'.

### 3.3 Numerals

Zenaga has kept the original Berber numerals (Blažek 1998, Taine-Cheikh 2005b). When followed by a noun denoting the object which is getting counted, the numerals one to ten agree in gender (suffix -äđ~ät for the feminine). For the following tens, the unit is preceded by $\partial{ }^{đ}$ 'with', e.g. märäg $\partial \neq a k k u \bar{z}$ 'fourteen'. The following numerals are built with tmärīn 'tens', tmađ̣an 'hundreds' and ävđ̣đan 'thousands', e.g. karạat-tmärīn 'thirty' (literally 'three tens').

### 3.4 Pronouns

### 3.4.1 Personal

## Independent

Table 3

|  | SINGULAR | PLURAL |
| :---: | :---: | :---: |
| $\begin{array}{ll} \hline 1 & \mathrm{M} \\ & \mathrm{~F} \end{array}$ | $n i^{?} K$ | nəkni $n ə k n a^{?} N^{y} \ddot{a ̈} đ$ |
| $\begin{array}{ll} \hline 2 \mathrm{M} \\ & \end{array}$ | kəK <br> k $^{\prime} \boldsymbol{m}^{m}$ | nətni <br> nətna ${ }^{?}{ }^{g}$ วmn ${ }^{y} \ddot{a} đ /$ nətnamn $^{y} \ddot{a} đ$ |
| $\begin{aligned} \hline 3 \mathrm{M} \\ \mathrm{~F} \end{aligned}$ | nəttä/əntä nəttähäđ/ntähäđ | nəhni <br> nəhna${ }^{ } N^{y} \ddot{a} む$ |

## Suffixal

The clitic pronouns, usually affixed to the verb, can precede the verb under specific conditions. The pronouns encoding the direct object have morphological idiosyncrasies if the last radical consonant of the verb is a glottal stop. The pronouns used after prepositions (excepted after $\partial n(n))$ resemble sometimes the direct object affixes (in the second person), and sometimes the indirect object affixes (in the third person).
Table 4 : SINGULAR

|  | General case | OBJECT after a glottal stop | INDIRECT OBJECT | After preposition (excepted after an(n)) |
| :---: | :---: | :---: | :---: | :---: |
| 1 C | $-i(h),-i^{2} h,-i^{2} n,-i^{2} d 5$ |  | $-i^{\text {² }}(h)$ | $-i^{\text {² }} h$ |
| $2 \begin{gathered}\text { M } \\ \mathrm{F}\end{gathered}$ | -ki -käm |  |  | -ki <br> -käm |
| $3 \begin{aligned} & \text { M } \\ & \mathrm{F}\end{aligned}$ | $\begin{aligned} & -t i \\ & -t a ̈ d /-t i y a ̈ d \end{aligned}$ | $\begin{array}{l\|l\|} \hline-i^{2} h \\ -i y a ̈ d \end{array}$ | $-\bar{a} \stackrel{c}{ }$ | -š |

[^4]Table 5 : PLURAL

|  | Direct ObJECT |  | INDIRECT OBEJCT | After preposition (excepted after an(n)) |
| :---: | :---: | :---: | :---: | :---: |
|  | General case | after a glo |  |  |
| 1 C | $-a^{2} n a ̈ g$ |  |  | -näg |
| $2 \begin{aligned} & \text { M } \\ & \mathrm{F}\end{aligned}$ | $-k u ̄ n$ <br> $-k \partial m n^{y}$ (äd) | -āgūn <br> - $\bar{a} g \partial m n^{y}(\ddot{a} d)$ |  | $\begin{aligned} & -k u ̄ n \\ & -k \partial m n^{y}(\ddot{a} d) \end{aligned}$ |
| $3 \begin{gathered}\text { M } \\ \mathrm{F}\end{gathered}$ | $\begin{aligned} & \text {-tän } \\ & -\operatorname{ta} N^{y}(\ddot{a} d) \end{aligned}$ | $\begin{aligned} & \text {-(ə)nän } \\ & \text {-(ə) } N^{y}(\ddot{a} d) \end{aligned}$ | $\begin{array}{\|l} \hline-\bar{a} s ̌ a ̈ n \\ -\bar{a} s ̌ \partial N^{y}(\ddot{a} d) \end{array}$ | $\begin{aligned} & \text {-šän } \\ & \text {-ša } N^{y}(\ddot{a} d) \end{aligned}$ |

### 3.4.2 Possessive

Two sets of affixal pronouns are used after the preposition $\partial n(n)$ 'of'. One of these two, similar to the preceding sets, expresses possession: täyimt $=\partial n=k$ 'your she-camel'. The other one, which is rare, expresses pronominal possession: $\partial n n=\partial \neq a ̈ n$ 'theirs'.

Table 6

|  |  | Affixal Pronouns |  | Independent Pronouns |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | SINGULAR | PLURAL | SINGULAR | PLURAL |
| 1 | C | $-(i)^{2} n$ | $-(\partial) n n=\ddot{a}^{2} n$ | $\partial n n=u^{2} h \sim u^{2} n$ | $\partial n n=\ddot{a} k k \ddot{a} n$ |
| 2 | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~F} \end{aligned}$ | $\begin{aligned} & -(\partial) n=k \\ & -(\partial) m \end{aligned}$ | $\begin{aligned} & -(\partial) n n=\bar{u} n \\ & -(\partial) n n=\ddot{a} đ k \partial m n^{y}(\ddot{a} đ) \end{aligned}$ | $\begin{aligned} & \text { כnn }=a k \sim a ̈ k k ə k a ̈ g i \\ & \partial n n=a ̈ k k a ̈ m \end{aligned}$ | $\begin{aligned} & \partial n n=\ddot{a} t t a ̈ n \\ & \partial n n=\ddot{a} d k \partial m n^{y}(\ddot{a} đ) \end{aligned}$ |
| 3 | $\begin{aligned} & \mathrm{M} \\ & \mathrm{~F} \end{aligned}$ | $-(\partial) n=\check{s}$ | $\begin{aligned} & -(\partial) n=\text { šän } \\ & -(\partial) n=\text { ša } N^{y}(\ddot{a} \ddot{a}) \end{aligned}$ | $\partial n n=i h$ | $\partial n n=\partial đ a ̈ n$ |

### 3.4.3 Demonstrative

Demonstrative pronouns inflect for gender and number.
Table 7

|  | SINGULAR |  |  | PLURAL |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | neuter | M | F | M | F |
| PROXIMAL | äy才 | $\ddot{\text { äd }}$ | täđ | วđniđ | tađniđ |
| INTERMEDIATE ( ${ }^{\prime}$...at | $\ddot{a}^{2} d$ | $i^{2} d$ | $t i^{2}$ ¢ | ađni ${ }^{\text {² }}$ d | tađni ${ }^{\text {² }}$ |
| issue") |  |  |  |  |  |
| DISTAL |  | $\bar{a} n$ | tān | วđđnān | təđnān |

There is, in Zenaga, an invariable predicative auxiliary $\ddot{a} y \neq \ddot{a} d$ 'it is...' and three sets of presentatives; each of which is made of a demonstrative pronoun preceded by the invariable deictic word $\ddot{a} \neq-: \ddot{a} d=\ddot{a} y \not{ }^{\prime}$ 'this is', $\ddot{a} d=\ddot{a}^{2} d$ 'that is', $\ddot{a} d=\bar{a} n$ 'that (overthere) is'.

### 3.4.4 Relative

Only the following three invariable forms are real relative words: $\bar{a} r, \bar{a} f$ and $\bar{a} \check{s}$ (used for relativization of an indirect object or an adverbial word). These exist only in Zenaga and can be also used as oath particles (Taine-Cheikh 2007, 2010a).

### 3.4.5 Interrogative

Interrogative expressions are invariable: $m=\ddot{a} đ \sim t a^{7} k=\ddot{a} d$ 'who?', $t a^{7} k=\ddot{a} y \not \subset$ 'what?', $m a^{?} h a ̈ g / m a^{2} K$ 'where?', $m a^{2} K=o^{2} g \nexists / t a^{?} K=o^{2} g \not d^{‘}$ when?', $t a^{?} K=\bar{a} f / i y=$ wäh 'why?, for what?'.
3.5 Verb

### 3.5.1 Inflection

Table 8

|  |  | Personal indexes | 'to make' |
| :---: | :---: | :---: | :---: |
| 1SG | c | ...-äg | äskär-äg |
| 2 SG | c | $t-\ldots-a ̈ d$ | $t$-äskär-äđ |
| 3 SG | M | $y-\ldots$ | $y-a ̈ s k a ̈ r ~$ |
|  | F | $t-\ldots$ | $t$-äskär |
| 1PL | C | $n-\ldots$ | $n-a ̈ s k a ̈ r$ |
| 2PL | M | $t-\ldots$-äm | $t$-äskar-äm |
|  | F | $t-\ldots . .-\partial m n^{\searrow} \ddot{a} \neq$ | $t$-äskär-əmn ${ }^{\text {y }}$ ¢̈đ |
| 3PL | M | ...-än | äskar-än |
|  | F | $\ldots$...-2N ${ }^{\text {y }}$ äd | äskär-ə $N^{y} \ddot{a} đ$ |

The personal indexes are always the same apart from two exceptions.

- the imperative, which is only used in the second person, has only suffixal plural markers: or $o^{2}$ gum 'run!' orgum-äm 'run (м PL)!' o ogum-əmn'(äd) 'run (F PL)!'.
- the form called 'participle' (Galand 2006), only used in the third person, is characterized by the addition of -n: M.SG $y$-äskär-än, F.SG t-äskär-än, PL (M+F) äskär-nin


### 3.5.2 Derivation

Basic verbs can have various meanings (state verbs, active verbs, middle verbs, reflexive verbs, or a combination of these meanings). The derived forms are semantically specialized.
a) The prefix s- (whose phonetic realization depends on the nature of the radical consonants) derives a causative or a factitive form.
b) The prefix $m(m) \sim n(n)-$, which is rarely used, derives a middle or a reflexive form.
c) The prefix $T^{y}$ - added to an agentive verb (basic or prefixed by s-) derives commonly a passive form.

### 3.5.3 Tense, aspect, mood

The system mainly distinguishes three forms: two aspectual forms, which are in opposition to each other, ('Perfective' vs. 'Imperfective') and a form basically modal called Aorist. The perfective and the imperfective forms often vary according to the context (positive vs. negative). Aorist forms vs. perfective forms, on the one hand, and positive forms vs. negative forms, on the other hand, are usually distinguished by vocalic alternations (Cohen and Taine-Cheikh 2000). Only the imperfective forms are usually characterized by a
consonantal modification (prefix $t(t)$ - or gemination of a radical consonant), at least for the basic verbs.
Table 9

|  | Aorist | Negative <br> Perfective | Positive <br> Perfective | Negative <br> Imperfective | Positive <br> Imperfective |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 'take' | yärməš | yərməš | yormäš | yiramməš | yirämmäš |
| 'fear' | yogif |  | yägif | yattagaf |  |
| 'shiver' | yargagi |  | yärgägä | yottargagi |  |
| 'get caught' | yäTyärmäš |  |  | yəTª̈rmäš |  |

The preceding table contains two disyllabic verbs: the first one illustrates the most frequent case, whereas the second one illustrates the vocalic alternations which are characteristic of the 'internal' verbs (Cohen 1911). Apart from the regular disyllabic verbs like 'take', verbs usually have at least two stems which fuse with each other.
The basic system is completed by some grammaticalized verb forms, for example the verb yänhäyä (literally 'be busy') is used to express the future.

### 3.6 Adverbials

Apart from two directional (or orientational) particles ( $-d(a ̈ h)$ and $-n(a ̈ h)$ ) which function as clitics, like the affixal pronouns, the adverbs build a small class of invariable words. Deictic elements are often part of location and time adverbs.

## 4 Syntax

### 4.1 Word (constituent) order

The basic order is head + determiner and head + argument/adjunct.
The direct object tends to precede the indirect object, both preceding prepositional objects. However, if both the direct object and the indirect object are encoded as affixal pronouns, the indirect object can possibly precede the direct object, if the latter is in the third person. Furthermore, the verbal 'satellites' (i.e. pronominal and adverbial clitics) can be moved and affixed onto other hosts (e.g. onto negation).

### 4.2 Major sentence types

### 4.2.1 Simple sentences

In a predication whose core is a verb, the personal index can alone encode the subject. A
 $t$-дddäm 'the sun has set'. The same holds in case there are verbal arguments: Compare (nəttä) y-azzog irki $\partial d^{\wedge} t a ̈ s ̌ s ̌ i ~ '(I t ~ i s ~ h i m ~ w h o) ~ h e ~ h a s ~ t i e d ~ t h e ~ c a l f ~ w i t h ~ t h e ~ c o w ' ~ a n d ~ y-~$ uwäd́ㅊ̈d ${ }^{\wedge}$ ^däh ayma $={ }^{?} n$ '[then] my brother married her' (lit. 'brought her here brother of mine'). The lexeme encoding the personal index is placed before or after the verb according to the way the information is structured. Neither this lexeme nor the direct object are marked for case.
Nouns, adverbs and adjectives can also be the predication core. In this case, the subject is obligatorily encoded as a noun or a pronoun (except maybe for the adjectives inflected in
the first and in the second person). The order is: $S+$ predicate. The invariable copula äd is necessary to predicate non verbal elements other than adjectives. Compare ( $n i^{i} \mathrm{~K}$ ) käygiš-ag '(me) I am blind' and täyimt äd$\underline{d}^{\wedge} t m \partial g d i z ̄$ 'the she-camel is a dairy one'.

### 4.2.2 Complex sentences

## Co-ordination

Sentences are usually coordinated by juxtaposition. Sometimes, however, imperative forms and imperfective forms which are not the first verbal form in a sequence of actions are replaced by aorist forms. $n a^{2}$ 'or' expresses the alternative between two sentences.

## Subordination

There exist several types of subordination. Among sentences which are modifying a verb, obligatory ones always immediately follow the verb. The presence and the choice (especially for $\ddot{a} \underline{d}$ vs. äyš) of the subordination marker, and the choice of the verbal form (Aorist vs. (Im)perfective) depends on the main verb and on the type of subordinate clause involved. One of the particularities of Zenaga is that the particle äd, which has a deictic origin, is used in subordinate clauses introduced by the verb 'say' (construction used for reported speech), in consecutive clauses and in the protasis of condinational clauses (Taine-Cheikh 2010b).
In subordinate clauses, verbal satellites are usually moved and affixed to the subordination marker. This movement also happens in relative clauses in the absence of a relative marker ( $\bar{a} \check{s}, \bar{a} r$ or $\bar{a} f$ ) and of a preposition. In this case, a host with a deictic origin must be added. The relativization of the subject is marked on the verb (affixes -än or -(n)in of the 'participle'), whereas the relativization of the direct object is not overtly marked ('gap strategy'), see Galand 2002, 2014, Taine-Cheikh 2007.

### 4.2.3 Negation (Taine-Cheikh 2011)

The invariable particle wär is used with all the verbal predicates. Its presence triggers the negative (im)perfective form of the verb. The verbal satellites (including the participle marker) are suffixed onto the negation: Compare yassän =ti 'He knows it' with wär = ti yassan 'He does not know it'.
In the case of a non-verbal predicate (except for the adjectival predicate), a form which has a verbal origin (< yigä 'become') replaces the copula $\ddot{a} \underline{d}$ and tends to coalesce with the negation wär: (...) wäygi kaK '(...) it is not you'.
The adverbs äN'in and đäšy ${ }^{\prime}$ än used after the particle wär mean 'never' and 'not anymore', respectively (see also the auxiliaries wär'yiššiy 'not ... anymore' and wär^yumrä 'not ... yet').

### 4.2.4 Questions

Interrogative markers are always sentence-first. A particularity of Berber languages is that interrogative markers like $m=\ddot{a} d \underline{d}$ 'Who?' (lit. 'What-this?'), if they are not used alone, are always followed by a participial relative clause: $m=\ddot{a} d{ }^{\wedge} t i y u z z u^{2} r$ - $a n$ 'Who saw him?'.

### 4.2.5 Other important types (Taine-Cheikh 2010a)

Commands are expressed by the imperative in the second person. To express prohibitions, the negation particle wär can be followed by an imperative form based on the positive Imperfective. It is nevertheless more common to use an injunctive sentence. In such a sentence, the verb is in the aorist form and preceded by the particle äd.

Oaths are characterized by the use of the positive Perfective (without wär, even for a negative oath) combined with specific particles.

### 4.3 Noun phrase structure

If the determinative expansion is a noun, it is usually introduced by $\partial n: a^{2} g a ̈ y ~ \partial n^{\wedge} t^{2} r a ̈ y n$ '(a/the) country of stones'. This relational marker alternates with däg 'among' after numerals: tmađ̣ih $\partial n \sim \underline{d} a ̈ g^{\wedge} t i ' y m a n ~ ' t w e n t y ~ s h e-c a m e l s ' . ~ I t ~ i s, ~ h o w e v e r, ~ a b s e n t ~ w i t h ~ n u m e r a l s ~$ inferior to eleven ittäm 'äyi'm 'eight camels'. In such cases, the head noun remains in the singular and the numeral word agrees with it in gender (the units of the numerals from eleven to nineteen also agree in gender with the head noun): ittäm-äď ${ }^{\text {täyimt }}$ 'eight shecamels'.
If the determinative expansion is an adjective, it follows directly its head noun and is marked as a participle by the suffixes -än and -nin (like the verb of the relative clause whose antecedent is a subject): täyimt ädäy-än '(a/the) black she-camel'.

### 4.4 Clause structure

According to the utterance context and the information structure of the sentence, the latter contains one or more phrases. The predicative phrase can be more or less complex and can vary with the same verb (for example if it is a labile verb) (ižǐigär) $y$ - iz žäm '([the] rope) is plaited', (nattä) y-ižz̈̈m ižzil${ }^{i} g a ̈ r ~ '(i t ~ i s ~ h i m ~ w h o) ~ h e ~ h a s ~ p l a i t e d ~ a / t h e ~ r o p e ' . ~$
The topic and the focus are intonationally and morphosyntactically marked. The topicalized noun phrase is moved to the beginning of the sentence (as a general rule), whereas a pronominal clitic is found in its base position: $i \underline{z ̌ z i}{ }^{2} g a ̈ r y-i z u ̈ z m=t i{ }^{\text {‘}}$ [the] rope, he has plaited it'. However, if the subject noun phrase is topicalized (which is a non-obligatory phrase in case a personal index is marked on the verb), an independent pronoun is found in its base position.
A noun phrase can be usually focalized using a copula or a presentative construction: $\ddot{a} y \underline{d}=\ddot{a} \underline{d}(w a ̈ y g i) n i^{2} K \ddot{a} \underline{d}^{\wedge} y$-ittur $=\ddot{a} n$ 'it is (it is not) me who works'.

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[^0]:    ${ }^{1}$ The emphasis, which is characterized by a pharyngealization (or a velarization), is transcribed here by a subscript dot (i.e. [ t$]$ for [ $\mathrm{t}^{\mathrm{f}}$ ] and [ $\left.\mathrm{t}^{\mathrm{y}}\right]$ ). The labiovelarization of the bilabial consonants, whose phonological status is unclear, is also written as a subscript dot.

[^1]:    ${ }^{2}$ For the sake of simplicity, phonetic variations of short consonants which do not change the phonological status of the segment, are transcribed by subscript or superscript symbols.

[^2]:    3 In Zenaga, such forms/lexemes can also share a long vowel resulting from the loss of a laryngeal fricative (*h).

[^3]:    ${ }^{4}$ Tetserret, alone, presents a similar derivation pattern (Attayoub 2001:46).

[^4]:    $5 \quad$ The forms $-i^{2} n$ et $-i^{2} d$ result from a fusion with the initial consonant ( $n$ and $d$ ) of the directional particles näh and däh.

