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## **SOME NEW ETYMOLOGIES FOR GLOTTAL-STOP INITIAL ZENAGA BERBER WORDS**

Our understanding of Berber historical phonology has greatly improved over the last decade. This is largely due to the work of the French scholar Catherine Taine-Cheikh, who published a voluminous dictionary (2008, 2010) and numerous fine-grained analyses of Zenaga, the Berber language of Mauritania. Due to the high quality of her transcriptions, combined with insightful analysis, many features of Zenaga synchronic and historical phonology have become clear. From this, it appears that Zenaga has followed an entirely different phonological path than the other Berber languages. As a result, it is at points highly innovative where other languages are more conservative, while at other points it is conservative where all other languages have innovated. Therefore, Zenaga nowadays stands in the center of interest in the field of Berber historical linguistics, especially in the works of Taine-Cheikh (among many others: 1997, 1999, 2001-2003, 2004, Cohen & Taine-Cheikh 2000), but also in other studies, e.g. Prasse (2011), Souag (2010a, 2010b), Lux (2011), van Putten (2011) and Kossmann (2001, 2002, 2005).<sup>1</sup>

The presence of a phonemic glottal stop is one of the outstanding features of Zenaga phonology (Taine-Cheikh 2004, Kossmann 2001). It partly corresponds to the consonant  $\gamma$  in other Berber languages, e.g. Zenaga *iʔf* ‘head’ as compared to Tuareg *eyǎf* ‘head’. However, in other words it does not correspond to a consonant in other Berber languages. Taine-Cheikh (2004) and Kossmann (2001) have shown that in the other languages, at least in verbs, presence and absence of the glottal stop in Zenaga leads to different vocalic reflexes. The

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<sup>1</sup> Forms from other languages are taken from the standard references (cf. Kossmann 1999 for a list). If not marked otherwise, Tuareg forms are based from Prasse, Alojaly & Mohammed (2003). The following abbreviations are used: TC 2008 = Taine-Cheikh (2008); NZ II = Naït-Zerrad (1999); NZ III = Naït-Zerrad (2002); W = Iwellemmeden Tuareg; Y = Ayer Tuareg; Zng = Zenaga.

easiest way to explain this is that these glottal stops in Zenaga reflect a proto-Berber consonant, lost in the other languages (see also Prasse 2011).

The glottal stop in Zenaga has a special distribution. It is only realized in coda position, when followed by another consonant. In word-final position, its presence can be deduced from the realization of a final vowel. When there is an underlying glottal stop, the vowel stops abruptly. When there is no underlying glottal stop, the vowel is terminated by an off-glide *h* (cf. Kossmann 2001).

This specific distribution of the glottal stop seems to be the result of a historical process, in which a vowel following the glottal stop is deleted or—if post-consonantal—metathesized, for example, \**edäyās* ‘colostrum’ > *ädiʔš* (phonologically something like *adəʔš*); \**imɣur* (or something similar) ‘to become big’ > *ämuʔr ~ umuʔr* (phonologically something like *a/əməʔr*).

Taine-Cheikh (2008) is a very rich dictionary of Zenaga. It also provides very useful notes on the etymology of the words. Most of these etymologies are uncontroversial, but there are a number of words for which alternative etymologies are possible. Moreover, there are a number of words which do not receive an etymology in the dictionary, for which such an etymology is possible.

In view of the importance of the glottal stop in Berber reconstructions, I shall provide a list of twenty etymologies for ʔ-initial Zenaga roots not found in Taine-Cheikh (2008), some of them—in my opinion—unproblematic, others more questionable. Many of these etymologies are “new”, in the sense that I am not aware that they have been proposed before. Others can be found scattered over the literature. The many correct etymologies in Taine-Cheikh (2008) will not be repeated. In the presentation of the Zenaga materials, I first provide the transcription used by Taine-Cheikh in her dictionary. This is followed by a tentative phonological interpretation between brackets, roughly based on Taine-Cheikh (1997 etc.). As the phonological opposition between /i/ and /u/ seems to be neutralized in virtually all contexts (cf. Cohen & Taine-Cheikh 2000), I have chosen to represent them as a single element, /ə/ in this phonological interpretation. Note that in Zenaga the short and the plain vowels of Proto-Berber have coalesced, so that Zenaga /ə/ (as defined here) corresponds to Tuareg /ə/, /i/, /e/, /o/, and /u/, while /a/ corresponds to Tuareg /ā/ and /a/ (Kossmann 2004). Comparisons with other Berber languages have been limited to one or two examples. Where possible, I used Niger Tuareg as a language of reference.

## I. Correspondences with Berber \*ɣ

- Zng *aʔbbäd* ~ *abbäd* (*aʔbbad*), pl. *iʔgdän* (*əʔgdan*) ‘lacet, cordon, lanière, courroie (toujours en cuir)’ (TC 2008:4).

The noun is clearly a cognate of Tuareg *aɣāwad* - *iyāwadän* ‘lanière en cuir’ (WY). The correspondence Zenaga *bb* to Tuareg lax *w* is unexpected at first sight, as normally *bb* corresponds to tense *gg<sup>w</sup>* elsewhere in Berber. One remarks

however that there exists a tendency in Zenaga for a consonant to be tensed after glottal stop if not followed by another consonant (cf. *oʔʃfud* ~ *oʔʃud* ‘knee’, elsewhere in Berber always (*a*)*fud*), even though the exact conditions of this process are unclear. Alternatively, an original form with tense gg<sup>w</sup> could be posited, as probably reflected in Timimoun *ayəggad* ‘leather’ (Boudot-Lamotte 1964:542). The irregular plural may represent *\*iɣāwadān* > *\*əʔawadan* > *\*əʔwdan*, followed by occlusivation of *\*w* in the position between ʔ and *d*. In view of the otherwise irregular loss of /a/ between /w/ and /d/, one might also suggest a derivation from a different plural type, *\*iɣəwdān* > *\*əʔwdan* > *əʔgdan*.

- Zng *oʔbḥäy* (*aʔbḥay*). Pl. *uʔbḥäyän* (*əʔbḥayan*), ‘esclave, homme de statut servile’.

Due to a regular sound change, the final y goes back to *\*l*, as corroborated by the feminine form *toʔbḥäl* (*taʔbḥall* < *taʔbḥalt*). (TC 2008:5). Taine-Cheikh (l.c.) derives the noun from the Arabic root *ʕBD*. In view of the final *\*l*, this seems to be untenable. A better comparison is Tuareg *eɣāwel* (WY) ‘homme noir d’origine esclave’. Like in *aʔbbäd*, single w would have been strengthened to bb (for unknown reasons emphatic here). The tense *bḥ* can also be derived directly from gg<sup>w</sup>: Souag (2011), who presents the same etymology, points to *ayəggal*, ‘black’, in the Berber of the Touggourt region.

- Zng *tiʔfəddīd* (*təʔfəddīt*), ‘jeune (ânesse) adulte (qui a déjà eu un petit)’ (TC 2008:14).

This noun is cognate with Tuareg *teɣāfädde* (W) ‘premier enfant, jeune an[imal]; femme/femelle après son premier accouchement’, *teɣāfädde* (Mali) ‘first-born (of woman or female animal)’ (Heath 2006:160).

- Zng *taʔrS* (*taʔrss* < *taʔrst*) ‘graisse de chameau (solidifiée)’ (TC 2008:50).

This noun is probably based on the same root as Tuareg *ɣāräs* (WY) ‘être figé, glacé, gelé par le froid ; se solidifier, durcir (beurre, huile, etc.)’, cf. also dialectal Tashelhiyt forms such as *aɣris* ‘gelée’ (Kossmann 1999:214, nr. 627). Note however that the root originally had *\*b*, as shown in Mali Tuareg *ɣurhəs* ‘freeze (water); clot (blood); harden (butter, fat)’ (Heath 2006:179). As a result, one would expect a long vowel in Zenaga (Kossmann 2002). The absence of this long vowel is only explainable if one assumes a metathesis: *\*taɣərħəst* > *\*taɣərīst* > *\*taɣīrəst* > *\*taʔīrəst* > *taʔrst*.

- Zng *iʔwi* (*əʔwəʔ*), pl. *aʔwän* (*aʔwan*) ‘tout petit veau (qui vient de naître)’ (TC 2008:57).

This noun can be compared with Tuareg *ayū* (WY) ‘jeune bœuf, taurillon’, Tashelhiyt *taɣīt* (pl. *tuɣa*) ‘genisse’. Tuareg forms such as Ahaggar *aɣū* ‘veau d’un an’ and Mali *eḥäye* ‘young adult bull’ show that the noun originally contained *\*b* (Kossmann 1999:95, Nr. 184). The absence of a long vowel in Zenaga, the regular reflex of *\*b*, is unexpected. The semantics of the terms do not overlap entirely, as in Zenaga the term refers to bovines of a younger age than the

other varieties; for the dialectal lack of consistency in age terminology of young bovines, cf. Basset (1939).

- Zng *əʒmiʔžāri* (*əʒməʔžarəʔ*) ‘rigole, canal, lit d’un cours d’eau (sans sa 2<sup>ème</sup> partie)’ (TC 2008:67).

The noun seems to be an S-M derivation based on the same root as the well-attested Berber form represented by Tuareg *eyāzār* (Y) ‘vallée, oued, ravin’.

## II Correspondences where other Berber languages have no consonant

- Zng *täʔdās* (*taʔdass*) ‘moustiques’ (TC 2008:9).

Taine-Cheikh (l.c.) compares the generally attested Berber form *izi* ‘fly’. As Zenaga *d* is not a normal reflex of \*z, and as the final s is absent in *izi*, this is hardly a convincing proposal. In fact, a different Berber root should be compared: Tuareg *tādast* (W) ‘moustique’, Figuig *ddisəyt* ‘moustique’ (cf. for more cognates in Berber NZ II:402).

- Zng *əʃmuʔdi* (*əʃməʔdāʔ*) ‘envelopper, dissimuler, emmitoufler sa tête’ (TC 2008:10).

The verb looks like a S-M derivation from a root similar to well-attested forms represented by Tuareg *aḍu* (WY) ‘plier, enrouler, envelopper dans (tissu, papier, etc.)’. The Ghadames cognate *odəb* ‘plier’ confirms the initial glottal stop, as Ghadamsi o-initial verbs regularly correspond to ʔ-initial verbs in Zenaga (Kossmann 2001). It should be noted, however, that the evidence from Ghadames and elsewhere clearly shows that the final consonant was \**h* rather than \*ʔ (Kossmann 1999:87, nr. 152). Normally, \**h* is represented in Zenaga by vowel length (Kossmann 2004). Therefore the comparison remains problematic.

- Zng *tiʔf(f)ikkiʔd* (*təʔffəkkəʔd*) ‘boule d’écume, pl. écume, mousse (du lait)’ (TC 2008:16).

There is no doubt about the relationship with well-attested forms such as Tuareg *ikfay* (Y) ‘être frais (lait)’ and northern Berber forms such as Tashelhiyt *akʷfay* ‘lait (frais)’ (see also Kossmann 1999:176, nr. 495). The metathesis KF > FK is well-known in Berber, cf. doublets such as *əkf* ~ *əfk* ‘to give’ and *ikfər* ~ *ifkər* ‘tortoise’.

- Zng *iʔf(f)ərž(ž)ad* (*əʔf(f)ərž(ž)ad*) ‘séné (cassia)’ (TC 2008:18).

Nicolas (1953:100, cited in TC l.c.) has a form with an emphatic final consonant. The emphatic consonant also appears in the way the noun was taken over in Hassaniya Arabic: *ävälläziṭ* (TC 2008, l.c.). One remarks the similarity to Tuareg plant names such as *afələnžəd* (W), *akərənžəd* (Y) ‘esp. d’arbuste, amarante (*Acrachni radimosa* ? *Gnaphalium luteo-album* ?)’, *abələnžəd* ‘plant sp. (*Reseda villosa*?)’ (Mali, Heath 2006:39). *Senna* has different names in Tuareg, however, cf. Ritter (2009 II:124-126).

- Zng *oʔgulli* (*aʔgalləʔ*) ‘jardin, terrain de culture’ (TC 2008:22).

Maybe connected with northern Berber forms such as Fighig *ayəllu* ‘ensemble de palmiers’ and Tuareg (Burkina Faso) *taḡlit* ‘wooded area, forest’ (Sudlow 2009:58).

- Zng *toʔgunʒiʔd* (*taʔgənʒəʔd*) ‘fruit (de certaines plantes) dont la forme rappelle celle d’une corne’. (TC 2008 :24).

The same form is given by Nicolas (1953:140, cited in TC, l.c.) meaning ‘corne’. The form is cognate with Tuareg forms meaning ‘arch, bow’, e.g. *tāganze* (WY) ‘arc, arceau’ (NZ III:841).

- Zng *oʔgurmi* (*aʔgərməyʔ*) ~ *äʔgurmi*; pl. *uʔgurmäyän* (*aʔgərməyan*) ‘grosse tique (du bétail)’ (TC 2008:25).

The y in the plural suggests that the singular form ends in y < \*l. One would have expected long ī rather than final [i], which normally represents a vowel followed by an unrealized final glottal stop. The noun reflects a well-attested Berber form instantiated by Tuareg *agərməl* (W) ‘tique gonflée de sang et tombée’ (cf. NZ III:883).

Zng *oʔgəʒ* (< *aʔgəʒ*) ‘savoir, connaître’ (TC 2008:26).

The verb is compared tentatively by Taine-Cheikh (l.c.) to Tuareg form such as *agəʒ* (WY) ‘protéger’. The correspondence would be irregular, as Zenaga *ʒ* should correspond to non-emphatic *z* elsewhere (in Tuareg, depending on the dialect, *h*, *z*, *ʒ* or *š*). A more likely alternative is: Tashelhiyt *agz* ‘reconnaître’, Fighig *agəʒ* ‘deviner’, Tuareg (plural noun) *igāzan* ‘géomancie’ (WY) (cf. NZ III:924), probably related to nouns of the type Tashelhiyt *agzzan* ‘devin’ and verbs derived from this (cf. NZ III:934). Both formally and semantically this matches the Zenaga form better.

- Zng *taʔkšah*, pl. *taʔkšūn* ‘problème, question (scientifique)’ (TC 2008:28).

This noun could belong to the same root as forms such as Tuareg *teyist* (W) ‘intérêt, souci’, Tarifiyt *miʔis* ‘intelligent’. The derivation would be *\*taʔəʔsa* > *\*taʔəʔxa* > *\*taʔəʔksa* > *taʔkšah*. On the Zenaga development *\*ʔs* > *\*xs* > *ks*, see Kossmann (1999:236; 2005). The presence of the glottal stop cannot be explained from the *\*ʔs*, as *\*ʔs* would have become *\*x* > *k* in this context. Therefore, one has to assume this root originally had a glottal stop in initial position (i.e. *\*ʔʔs*).

- Zng *taʔmmaʔaʔ* (*taʔmmaʔaʔt*), pl. *taʔmmäräʔdän* ‘larve d’insecte (en forme de ver), larve de mouche à viande’ (TC 2008:35).

The term is remarkably similar to forms in other Berber languages that refer to crickets or grasshoppers, e.g. Tuareg *āmuraʔ* (WY) ‘criquet, sauterelle’; Tashelhiyt *amrad* ‘criquet sans ailes’; Fighig *amərd* ‘jeune (scil. small?) sauterelle’. The semantic link is not without problems, however.

- Zng *tuʔnt* (*təʔnt*) ‘enclume’ (TC 2008:40).

There is little doubt that this noun is related to the well-attested Berber form for ‘stone’, cf. Tuareg *təhunt* ‘pierre, enclume’ (WY) (Kossmann 1999:101, nr. 208,

van Putten 2011:22). If this is correct, the original root must have been \*ʔbn. In Zenaga, one has to assume the following history: \*tiʔbunt > \*tiʔunt > təʔnt.

- Zng *täššaʔyimt* (*taššaʔyamt*) ‘rabet à bois’ (TC 2008:61).

Hassaniya Arabic borrowed the noun from Zenaga in the (more archaic) form *täšäylimt* (TC 2008, l.c.), which proves that the y in Zenaga goes back to \*l. The Zenaga noun could be an instrumental derivation based on the same item as Tashelhiyt *talima* ‘lime’, Beni Iznasen *tlima* ‘lime’. The Moroccan term is normally considered a loan from Latin *līma* ‘file’. If the Zenaga word is cognate, it seems that the derivation from Latin must be discarded; alternatively, the glottal stop is considered to be induced by the instrumental prefix—an explanation that seems to be totally ad hoc (see however the following form which shows a similar problem).

- Zng *amiʔžən* (*amaʔžən*) ‘prophète d’Allah’ (TC 2008:67).

This is possibly derived from a well-attested Berber verb represented in Figuig as *azən* ‘envoyer’. One remarks that Ghadames has *azən* ‘envoyer, déléguer’, rather than \*\**ozən*, which would be the expected form if there were an ancient initial glottal stop (Kossmann 2001). One wonders whether the introduction of the glottal stop is somehow related to the derivative scheme.

- Zng *täʔzuʔiʔd* ~ *tozuʔiʔd* (*taʔzəʔəʔt*) < ‘(os de la) cheville, mesure de hauteur’ (TC 2008:72).

The same root is attested in Mali Tuareg *tamzəzzətt*, pl. *timzəzzəden* ‘anklebone’ [Heath 2006:456]

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