

Pharyngealization and the Vowel System of Tasawaq (Northern Songhay)

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ABSTRACT

In this article, it is argued that Tasawaq, a Northern Songhay language in Niger, has two different dialects. One dialect has pharyngealized consonants as phonemes, while the other dialect lacks them, but has a binary opposition between /a/ and /æ/. It is shown that the two phenomena are correlated: wherever the first dialect has a pharyngealized consonant, the other has /a/, while otherwise /æ/ is found. Two historical scenarios are studied, one in which pharyngealization is a recent contact-induced feature in Tasawaq, the other in which the variety without pharyngealization is innovative.

Keywords: *Tasawaq, Songhay, phonology, pharyngealization.*

1. INTRODUCTION

Tasawaq is the language of In-Gall, a date-palm oasis about 100 kilometers west of Agadez in the Republic of Niger. It belongs to the Northern Songhay language family. All languages in this language group are characterized by an intricate mixture of Songhay and Tuareg elements (Nicolai 1990, Wolff & Alidou 2001, Kossmann 2007; for other Northern Songhay languages, cf. Souag 2010, Christiansen-Bolli 2010). As Tasawaq functions as a native language to most of its speakers, who rarely are fluent in other Songhay varieties, and may or may not be fluent in Tuareg, the issue of language mixing is of no immediate relevance to the issue at stake, and will not be dealt with in detail.

In this article, one specific subject in the phonology of Tasawaq will be discussed, the interplay of pharyngealization and the vowel systems. I will argue that there are two dialects of Tasawaq, one which has pharyngealization, while the other has not. The second dialect, on the other hand, has a vowel system with an additional opposition in the low vowels. It is argued that the low back vowel correlates with the presence of pharyngealization in the other variety, and that pharyngealization can be reconstructed for the common ancestor of the two varieties.

The phonology of Tasawaq has been the subject of a number of investigations. After some preliminary work by Francis Lacroix (1971, and the Tasawaq text published in Bernus & Bernus 1972), Robert Nicolai published a number of thorough phonological and comparative studies, in which he displays many data on Tasawaq (Nicolai 1981, 1979–1984, 1980, 1984). In the late

1980s, Ousseïna Alidou wrote an MA Thesis on Tasawaq (Alidou 1988), an analysis of remarkably high quality of a language which is not her native tongue. Her data and conclusions were published and inserted into a more general framework in Wolff & Alidou (2001). Some elements of Tasawaq grammar can also be found in Sidibé (2010a, 2010b).

In the autumn of 2003 I had the opportunity to work during one month in Agadez with Mrs. Ibrahim, born Nana Mariama Aweïssou,¹ a confident native speaker of Tasawaq. She has a mixed background; her father is a Fulani and her mother is from In-Gall, from a family with ties to sultan's court in Agadez. She is fluent in three languages, Tasawaq, Hausa and French, but has no (or only very superficial) knowledge of Tuareg and Fulfulde. Thanks to her dedication and patience, I was able to collect a wealth of data on the language, especially in the realms of lexicon and morphology. While this fieldwork corroborated many of the data found in earlier works, there are a number of points where Mrs. Aweïssou's speech differs considerably from the published data.

One of the most important points of divergence is the presence of pharyngealized consonants, and the implications this has for the vocalic system. This seems to be due to dialectal variation.² Nicolaï (1981: 546–7) points to the absence of pharyngealized consonants in Tasawaq, as opposed to both Tuareg and nomadic Northern Songhay languages:

“Au niveau de l’inventaire des phonèmes du parler courant ‘ non-marqué ’, nous ne relevons pas de consonnes pharyngales en tasawaq où la dimension de pharyngalisation ne semble pas appartenir au système actuel. Toutefois, [...] il nous a été possible de relever des réalisations très légèrement pharyngalisées, en ce qui concerne plus particulièrement le phonème /d/ réalisé devant *a* ; ces réalisations sont instables, très difficilement perceptibles, et les locuteurs ne semblent pas y attacher d’importance, ni même les remarquer. Ainsi, nous pensons qu’il ne s’agit pas de réalisation de phonèmes emphatiques, mais seulement de l’action de la tama□aq (= Tuareg, MK) sur la langue...”

This was confirmed in a letter from his hand (10-4-2007):

“S’il y a effectivement des variétés pharyngalisées de la tasawaq, c’est intéressant, mais comme tu sais, moi, je n’ai jamais rien trouvé de cet ordre... Mes informateurs étaient quand même assez nombreux : des enfants, des gens ordinaires et aussi des notables, dont ceux que Geneviève Calame-Griaule avait utilisé dans ses recherches.”

¹ I wish to thank Mrs. Aweïssou for her time and patience. I also wish to warmly thank Robert Nicolaï who gave me permission to listen to the recordings he made in the 1970s and to use them, and for his willingness to discuss the problems that constitute the subject of this article. I am also grateful to two anonymous referees for their comments. More information on Tasawaq as spoken by Mrs. Aweïssou can be found in Kossmann 2007, 2008, 2009, 2010, and 2011a.

² On dialectal differentiation within Tasawaq, cf. also Sidibé (2010a: 114).

In 2004 and 2008, Robert Nicolai generously permitted me to listen to some of his Tasawaq recordings, and his statements were corroborated to a large extent. As I had no problem in hearing pharyngealized consonants in Mrs. Aweïssou's speech, while I did not hear them in the recordings of Nicolai, I assume the difference between the two varieties is real, and not due to different interpretations of similar phonetic facts by different researchers. This was corroborated by one recording made by Nicolai in In-Gall, where I clearly heard pharyngealized consonants; Robert Nicolai, when listening to the same recording on my request (2008), confirmed this impression.

As Mrs. Aweïssou does not speak Tuareg, and only understands it as far as the large proportion of shared lexicon in the two languages allows for, an explanation in terms of idiolectal variation due to direct influence of Tuareg seems to be out of question. Therefore, I consider the main variant recorded by Nicolai (and probably also by Alidou) and the variant of Mrs. Aweïssou as two different dialectal varieties. Apparently the variety without pharyngealization is more common than the one with pharyngealization, but of course only a more sophisticated research could shed light on this. In the following, I will refer to the variety spoken by Mrs. Aweïssou as Tsq-A, and to the variety represented in most of Nicolai's recordings and writings as Tsq-B.

2. PHARYNGEALIZATION AND THE VOWEL SYSTEM IN TSQ-A

In Tsq-A, pharyngealization is a distinctive feature with labial and alveolar consonants. Similar to what is found in neighboring Northern Songhay and Tuareg varieties, it spreads over the whole word. Vowels adjacent to pharyngealized consonants are lowered and backed. This is particularly clear in the case of /a/, which is pronounced [æ] or [ɑ] in non-pharyngealized contexts, and [a] or [ɑ] in pharyngealized contexts, e.g.:³

/dá ⁿ /	[dæ□□]	'to do'	vs.	/dâ ⁿ /	[d□□□□□]	'to sing'
/ná ^s /	[ná ^s]	'to measure'	/á ⁿ /	[n□□□s□]	'to be fat (animal)'	

Velars undergo automatic palatalization before front vowels. As /a/ is a front vowel in non-pharyngealized contexts, it has the same effect. The allophone of /a/ in pharyngealized contexts is not a front vowel, and there is no palatalization, e.g.

³ In phonemic transcription, nasalized vowels are indicated by a following superscript **n**. Vocalic nasalization seems to be a phonetic variant of a vowel followed by nasal consonant. It is to a large extent predictable. However, as in some contexts conditioning factors are difficult to establish, I prefer writing what I heard. Subscript dots indicate pharyngealization. Long vowels are written by repeating the vowel sign. Both high and low tone are marked. Syllables without tone marking are cases where I am unable to make out the tone. This is mainly the case of the plural clitic **-yo**, which, in Mrs. Aweïssou's speech is pronounced with a very short, often voiceless vowel.

/káⁿ/ [k^yæ□□] ‘to fall’ vs. /ká[□]/ [k□□□□] ‘to be sweet’

With high vowels, the backing and lowering effect of pharyngealization is in most contexts less pronounced. In closed syllables, the two high vowels are strongly centralized when adjacent to a pharyngealized consonant. It is very difficult to hear the difference (if there is any) between /i/ and /u/ in this context, e.g.

/fú□/ [f□á□] ‘to be blown up’

Tsq-A has the following vowel system:

u	i	uu	ii
e	o	ee	oo
a		aa	

The short mid vowels only appear in word-final position. Different from Nicolaï (1981), but similar to Alidou (1988), I do not consider schwa a separate phoneme in Tasawaq. As mentioned above, it occurs as a conditioned variant of /u/ and /i/, especially found in closed syllables.⁴

In utterance-final position, long vowels do not appear. Probably all monosyllabic nouns and verbs with a final vowel have underlying vowel length, as this reappears in context, e.g.:

à té	‘he arrived’	à téè bí	‘he arrived yesterday’
mó	‘rice’	móò-□ó	‘this rice’

With polysyllabic vowel-final words, the final vowel remains short in all contexts.

One important feature of Tsq-A is the lowering of the short mid vowels, and their consequent neutralization with /a/ in closed syllables and in non-final open syllables:

*o > a
*e > a

This rule can be shown to operate in a number of morphophonological processes where short and long vowels correspond. Where morphophonological vowel lengthening is found, the underlying vowel quality reappears. This is, amongst others, the case in adjectival formations. CVC verbs have adjectives of the shape |cv□có|; the first vowel of the adjective corresponds to the underlying vowel in the verb, e.g.:

⁴ Most instances where Nicolaï writes □ were noted by me as [□], which I consider an allophone of i.

gáb	[g ^y æb]	‘to be expensive’	gàábó	‘expensive’
fár	[fær]	‘to open’	fèèró	‘opened’
yáy	[yéy] ⁵	‘to be cold’	yòòyó	‘cold’

Similarly, the underlying vowel quality surfaces when the 3sg and the 3pl object suffixes are attached to a CVC verb, as the vowel is lengthened in this context, e.g.

kár	[k ^y ær]	‘to hit’	à káár-à	‘he hit him’
fár	[fær]	‘to open’	á fèèr-á	‘he opened it’
dás	[dæs]	‘he touched’	à dóós-à	‘he touched him’

The same is found in certain types of plural and adjectival formation, where the vowel is lengthened, e.g.

éésàⁿ	[é□sæ□□]	pl ísèènàⁿ	‘tooth’	(cf. Tuareg ešen)
éégàf	[é□g ^y æf]	pl ígèèfàⁿ	‘hill’	(cf. Tuareg egef)
àsiffàx asøffe□	[à□s□□□f□□□□x]	pl isíffèè□àⁿ	‘napkin’	(cf. Tuareg)
ábràq abro□	[á□b□r□□□q]	pl ibròò□àⁿ	‘sheet’	(cf. Tuareg)

One context where final /e/ and /o/ are clearly neutralized in non-utterance-final position is before the plural clitic **-yo**. Note that, due to the palatal quality of /y/, non-pharyngealized /a/ is pronounced rather [e] than [□], while the backed quality of pharyngealized /a/ is much less pronounced than in other contexts. Examples:

gángá	‘drum’	pl gángá-yo	[g ^y áŋg ^y éyo]
yóóyó	‘camel’	pl yóóyá-yo	[yó□yéyo]
dábdè	‘piece of clothing’	pl dàbdá-yo	[dæbdéyo]

In some phonological contexts, the lowering of /o/ to /a/ leaves traces of its rounding on the preceding consonant. When the preceding consonant is a velar or a uvular stop, it is labialized, and the short /a/ phoneme may (but does not have to) be rounded,⁶ e.g.:

q^wáq	[q ^w □q]	‘be dry’	qòò□ó	‘dry’
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⁵ The high pronunciation of /a/ is conditioned by the two adjacent palatals.

⁶ One may argue that the opposition /a/ vs. /o/ is not neutralized after velar and uvular stops, and that labialization is a phonetic assimilation to the following rounded vowel. While it is difficult to decide on this point, an argument in favor of the present analysis is the plural formation (one of several possibilities) of the noun **k^wáy**, ‘master’ (doubtless from */kóy/), which is much used in compounds. In some compounds it has a plural with a lengthened vowel, **k^wááyàⁿ**, which shows that the medial vowel is phonemically /a/.

When the preceding stop is a labial nasal, it is pharyngealized, e.g.:

már ‘be far’ < ***mor**, cf. à **móór-à** ‘he is far away from it’ □**át** ‘be sour’ < ***mot**, cf. **mòòtó** ‘sour’

Although there exists a certain correlation between pharyngealization and the presence of the underlying phoneme /o/, this relationship is not exclusive, i.e., there are forms with underlying /o/ which have no pharyngealization or labialization (when there are no labial or velar consonants present), and there are cases of pharyngealization where the underlying vowel is different from /o/, e.g.

dás [dás] ‘he touched’
à **dóós-à** ‘he touched him’ (* /o/, no pharyngealization)

nás [n□□□s□] ‘be fat’
nààşó ‘fat (adjective)’ (* /a/, pharyngealized)

Etymologically, in the Tsq-A lexicon, pharyngealization has different sources:

- a. In the Tuareg part of the lexicon the source is pharyngealization in Tuareg, which is phonemic (for an overview of the complicated system in the dialects of the region where Tasawaq is spoken, see Mohamed & Prasse 1989–1990: 31–33, Kossmann 2011b: 15–17).
- b. In the non-Tuareg part of the lexicon, pharyngealization may be a residue of the lowering and unrounding of /o/ (see above).
- c. In the non-Tuareg part of the lexicon, pharyngealization also occurs in a non-systematic way, i.e. without any traceable influence of adjacent /o/ (see below).

3. TSQ-B: THE VARIETIES DESCRIBED BY NICOLAÏ AND ALIDOU

The varieties described by Nicolaï and Alidou do not have pharyngealization as a consonantal feature. As mentioned above, their notations were confirmed by my own listening to recordings by Robert Nicolaï, so we seem to be dealing with a real linguistic difference, and not with a difference in interpretation of similar acoustic facts. Nicolaï (1981: 550) presents a vowel system, which is very similar to the one I posit for Tsq-A:

i	u	ii	uu
e	ə	ee	oo
o			
a		aa	

While listening to Nicolai's recordings, I had the impression that this system has to be elaborated at certain points. Thus, I hear a clear difference between words which have [æ] and words which have [a]. e.g.

à tááy-à 'he made it humid'
à dáæy-à 'he payed it'

These are both opposed to /ee/, whose pronunciation is higher than that of [æ]:

à béén-à 'he finished it'

Therefore, I think the long vowel system should be represented as follows:

ii	uu
ee	oo
ææ	aa

There are probably some neutralizations going on between the phonemes /ææ/ and /aa/. Thus, after /h/, only /aa/ seems to be possible. In most contexts, the two seem to be well-distinguished.

In the short vowel system, there are two sub-systems. In the sub-system which is used in word-final position, there is only one low vowel; the system is therefore as in Tsq-A. In closed syllables and in word-internal open syllables, a different analysis is possible. In the first place, the oppositional value of /o/ seems to be relatively weak in these positions. In Nicolai's notations, as well as in the recordings I heard, [] is mainly present when preceded by a labial, a velar or a uvular stop, or when followed by /q/ or /w/. In the first case, there is an alternative pronunciation [wa], which is analyzed by Nicolai as a variant of /o/.⁷ An alternative statement of these facts would be that the pronunciation [] is a variant of /a/ after labialized stops and before /w/ and /q/.

Different from /o/, there is clearly an opposition between an open-mid vowel, pronounced [æ] ~ [] (often [e] before /y/), and a low vowel [a]. In view of the rest of the short vowel system, it is only logical to consider this the correlate to the /e/ – /a/ opposition in final position, thus:

/sat/ [sat] 'to jump' vs. /ker/ [k^y] 'to hit'

⁷ Some forms cited by Nicolai which do not follow these rules have long /oo/ in my data: **hò]** 'thing' (Nicolai 1981: 551) corresponding to **hòò]** 'this thing' in my notations, and **yóyó** 'camel' (Nicolai 1981: 551) corresponding to **yóóyó** 'camel'. In the recordings of Nicolai I listened to, only a different variant form of the latter noun appeared, **yó** 'camel'.

This is the point of view taken by Nicolai. From a strict phonological point of view, without taking morphophonological alternations into account, this is perfectly defensible. The system in closed syllables would be the same as that in word-final position. Only the allophones would be slightly different:

<i>word final position</i>		<i>closed syllable position</i>	
i	u	i	u
e	o	□~ æ	□
a~æ		a	

When looking at morphological alternations between short and long vowels, a different picture emerges. As in Tsq-A, in some morphophonological contexts short vowels correlate with long vowels. One would expect to have straightforward relationships, i.e. /e/ corresponding to /ee/, /o/ corresponding to /oo/ and /a/ corresponding to /aa/ or /ææ/. In fact we find a more complicated system, where at least the following correspondences are attested:

□~ æ <>	ee , e.g. [b□n]	‘finish’	à béén-à	‘he finished it’
□~ æ <>	ææ [k ^y □r]	‘hit’	à kǎǎér-à	‘he hit him’
a ~□ <>	oo [t□n]	‘fill’	à tóón-à	‘he filled it’
a ~□ <>	aa [tay]	‘be humid’	à tááy-à	‘he made it humid’

I have found no instances where ***o** would correspond to **æ**, which may be due to corpus restrictions.⁸

One solution to this problem is positing a similar neutralization rule as in Tsq-A. Like in the long vowel system, Tsq-B would have two low vowel phonemes, /æ/ and /a/. In closed syllables and in non-final open syllables, the underlying mid vowels /e/ and /o/ merge with the low vowels. */e/ always becomes /æ/, while /o/ becomes /a/. Thus the following rules obtain:

- e** > **æ**
- o** > **a** (with possible trace on preceding velar and uvular stops)

In this case, the correspondences cited above should be reformulated as follows:

/ æ / <>	ee e.g. / bæn /	‘finish’	>	à béén-à	‘he finished it’
/ æ / <>	ææ /kǎér/	‘hit’	>	à kǎǎér-à	‘he hit him’
/ a / <>	aa /tay/	‘be humid’	>	à tááy-à	‘he made it humid’
/ a / <>	oo /tan/	‘fill’	>	à tóón-à	‘he filled it’

⁸ Thus, I have no information on the verb Tsq-A **dàs** ‘to touch’ in Tsq-B. A strange case is **yæy** vs. **a yàáy-á** (not translated in the recording, but apparently a form with a 3SG object suffix **a**), which is probably to be compared with **yáy** ‘to be cold’, **yòòyó** ‘cold’ in Tsq-A. Maybe we are dealing with a different verb, though, as the tone seems to be different (Low in the Tsq-B forms and High in the Tsq-A forms), and as the meaning ‘to be cold’ does not seem to fit a form with an object suffix.

This is the analysis that will be followed in the remainder of this paper.

4. TSQ-A PHARYNGEALIZATION AND TSQ-B VOWELS

As shown above, the vowel system of Tsq-B is different from Tsq-A. A possible presentation is as follows:

i	u	ii	uu
e	o	ee	oo
æ	a	ææ	aa

Two important neutralizations occur in the short vowel system:

- a. In word-final position the opposition between **æ** and **a** is neutralized
- b. In closed and word-internal open syllables, **e** and **o** are merged with **æ** and **a**, respectively.

The main difference with the system of Tsq-A lies in the presence of a front-back contrast in the low vowels. When comparing the data of Tsq-B with those of Tsq-A, one finds a remarkable correlation. As shown above, Tsq-A has pharyngealized consonants, whereas they are absent in Tsq-B. Whenever Tsq-B has /a/ or /aa/ rather than /æ/ or /ææ/, this corresponds in Tsq-A to a low vowel in pharyngealized context. One should keep in mind, that in Tsq-A the vowels are phonetically backed in the vicinity of a pharyngealized consonant; in fact, the pronunciation of the low vowels is quite similar in the two varieties, and the main phonetic difference lies in the presence or absence of pharyngealization. Cf. the following examples, taken mainly from the Tuareg part of the lexicon:

<i>Tsq-A</i>	<i>Tsq-B</i>	
tárràý	tárràý	‘road’
támárrwàl	tamarwal	‘hare’
imáárràwàⁿ	imáárràwàⁿ	‘parents’
táfààlà	táfæ̀æ̀læ̀	‘kind of tent (Nicolai: hangar)’
àmáánà	æ̀mæ̀énæ̀	‘confidence (Nicolai: taxes)’
táskàr-k^wáy	táeskær-k^wáey	‘scorpion’

In the Tuareg part of the lexicon, the use, respectively, of pharyngealization (Tsq-A) and back low vowel phonemes (Tsq-B), is clearly related to the presence of pharyngealization in the local varieties of Tuareg.

One way of explaining the agreement in lexical distribution of the two phenomena would be the longstanding language contact with Tuareg. This could have affected the two varieties independently, as Tuareg is present as a second language in the communities of speakers of both varieties.

This explanation does not explain pharyngealization in words of Songhay origin. In these words, exactly the same correlation between pharyngealization in Tsq-A and low back vowels in Tsq-B is found, cf.

<i>Tsq-A</i>	<i>Tsq-B</i>	
□ ààmú	tààmú	‘female slave’
dà ⁿ	dàn	‘to sing’
à dááy-à	à dǎééy-à	‘he payed it’
dà̀r	dà̀r	‘to spread out’

Summarizing, there is a strong correlation between pharyngealization in Tsq-A and the presence of the back vowel phoneme in Tsq-B, both in the Tuareg and in the Songhay part of the lexicon.

5. HISTORICAL ANALYSIS

This brings one to the question of the history of these two correlated phenomena. On the one hand, one may assume that the system of Tsq-A is the result of a reinterpretation of the system in Tsq-B in terms of the phonological structure of the main contact language, Tuareg. This is certainly not an idiosyncrasy of Mrs. Aweïssou, who does not speak Tuareg, but may have applied at an earlier stage of the dialect. According to such an analysis, the speakers of early Tsq-A interpreted the original contrast *æ* vs. *a* in terms of pharyngealization, and introduced this secondary articulation in all places where the back variant was used. On the other hand, one can argue for the opposite scenario, which would mean that Tsq-A preserves an archaic version of the Tasawaq phonemic system with pharyngealization, while Tsq-B would have lost pharyngealization, and, as a consequence phonologized the corresponding allophones of /a/.

6. COMPARATIVE EVIDENCE?

On the basis of internal evidence, it is impossible to choose between these two scenario's. However, there is some comparative evidence for the second scenario. As described already by Lacroix (1971), the nomadic Northern Songhay languages Tadaksahak and Tagdal have phonemic pharyngealization.⁹ This occurs both in words of Tuareg origin and in words with a Songhay background. In Songhay words, the main conditioning factor seems to be the presence of a following /a/ or /o/ (Nicolai 1984). However, as shown by Nicolai, this conditioning is far from regular, and even within the Songhay part of the lexicon the pharyngealized consonants must be considered separate phonemes. There is a certain degree of agreement between the presence or absence of pharyngealization in words of Songhay origin between Tsq-A and Tadaksahak (data from Christiansen-Bolli 2010), e.g. in the following verbs with underlying /a/:

<i>Tsq-A</i>		<i>Tadaksahak</i>
dáⁿ	‘to make, to do’	da
dàr	‘to spread out’	dar
káⁿ	‘to fall’	kaŋ
.táy	‘to be humid’	.tay
nás	‘be fat’	nas
.tààmú	‘female slave’	□ aamu ‘male slave’
lààbú	‘clay’	□ aabu

There exist a number of exceptions to this. One exception has pharyngealization in Tadaksahak and no pharyngealization in Tsq-A:

nàm	‘to bite’	nam
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The other exceptions have pharyngealization in Tsq-A and no pharyngealization in Tadaksahak:

fás	‘to dig’	fas
kán	‘to be sweet’	kan
□ áára	‘the bush’	tarra

Both in Tasawaq and in Tadaksahak, pharyngealized and non-pharyngealized consonants are in phonemic opposition. They are attested in the Songhay part of the lexicon, where they are mostly in conjunction with /o/, which may have constituted a conditioning factor in their development. As pharyngealization is

⁹ Kwarandzey, the sedentary Northern Songhay language of Tabelbala in Algeria, also has phonemic pharyngealization (Souag 2010:33). The lexical distribution of this feature is unknown, but the feature is not restricted to loanwords (Lameen Souag, p.c.).

an ancient feature in Tuareg, the main contact language, and absent in Songhay outside of the northern group, it is reasonable to assume that ultimately the contrast was introduced under the influence of Tuareg. How this would have happened exactly is not very clear, however.

When studying consonants adjacent to /a/ in both languages, one remarks that non-pharyngealized consonants in Tsq-A almost always correspond to non-pharyngealized consonants in Tadaksahak. On the other hand, pharyngealized consonants adjacent to (underlying) /a(a)/ in Tsq-A correspond in more than half of the cases to pharyngealized consonants in Tadaksahak. Even though materials are far from abundant, this suggests that it is possible to reconstruct phonemic pharyngealization in the immediate ancestor of Tasawaq and Tadaksahak, even though the languages may have undergone some subsequent changes that obscured the relationship. If this is the case, pharyngealization of consonants is old in Tasawaq. The variety lacking it, Tsq-B, lost the feature, and phonologized a formerly allophonic variation in the low vowel system. Moreover, it would mean that pharyngealization – no doubt going back to Tuareg influence – is relatively old in Northern Songhay.

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