

THE ORIGIN OF HAUSA /h/

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1. The problem

The sound *h* occurs in Hausa in three different phono-lexical environments. Before *u* and *o* it occurs as an allophone of /*f*/, e.g. *huɗu* (= /*fudɗu*/) 'four', *tahoo* (= /*tafoo*/) 'come'.¹ In loanwords, primarily from Arabic, it also occurs before *a*, *i*, and, less often, *e*, where it must be considered a separate phoneme /*h*/, e.g. *hàmsin* 'fifty', *hikimàa* 'wisdom', *jihàa* 'region'.² Finally, in the specific environment of initial position followed by short *a*, it occurs as the phoneme /*h*/ in native words as well, e.g. *hakàa* 'dig', *hancìi* 'nose', *harshèe* 'tongue'. From a historical point of view, the first two cases are straightforward and pose no problem. The problem concerns the third case, in which the phoneme /*h*/ is distributionally very restricted but nevertheless occurs in a number of very common, very basic words. The question to be asked is: what is the historical origin of this presumably native phoneme and to what does it correspond in related languages?

It has generally been assumed that the source or sources of Hausa /*h*/ would be some consonant(s) belonging to the phonemic inventory of Old Hausa and ultimately to that of Proto-Chadic.³ Greenberg [1947:90] discounted

¹In the examples, long vowels are indicated by double letters, low tone by a grave accent (unmarked vowels being high), glottal stop by ? and the glottalized spirant (orthographically *ts*) by *s'* (although historically derived from *c'*). Tone and vowel length are not indicated in starred forms, nor is tone indicated in examples from languages other than Hausa. For northern and western dialects of Hausa, the distributional statements would have to be amended to account for the innovation by which /*f*/ has been replaced by /*h*/ before other vowels as well, e.g. *tàhi* 'go', *hwaadl* 'fall', cf. standard Hausa *tàfi* and *faadl*.

²The sound *h* also occurs before *u* and *o* in loanwords where it etymologically corresponds to /*h*/ rather than to /*f*/.

³I am using the term "Old Hausa" as a convenient way of referring to some earlier stage in the history of Hausa directly ancestral to Modern Hausa. The exact period of Old Hausa is yet to be defined but it would be some time after the separation of Hausa as a distinct language and before the modern historical period marked by Arabic/Islamic influence.

the possibility of /h/ being a recent loan-phoneme or a result of recent linguistic readjustments: "The contrast fa , ha in native Hausa words established f and h as distinct phonemes in Hausa before the introduction of Arabic loans..." Accepting the nativeness and antiquity of Hausa /h/, scholars using Hausa materials for Afroasiatic comparisons (e.g. Gouffé [1969/70], Hodge [1966], Pilszczikowa [1960]) have felt free to relate Hausa /h/ to h-like sounds in other languages on the assumption that etymological work on Hausa would justify these comparisons. Although Newman and Ma's [1966] comparative Chadic paper failed to establish Hausa /h/ as a reflex of any reconstructed phoneme, this seemed no cause for concern. In the first place, the Proto-Chadic consonantal inventory presented there was acknowledged to be incomplete, velar fricatives in particular not having been incorporated. Secondly, the question of Hausa /h/ hadn't been given any special attention. When ten years later a study devoted explicitly to the problem [Skinner 1976] was still unable to relate Hausa /h/ to other sounds in Chadic on a systematic basis, it suggested that there must have been something different about the history and development of Hausa /h/ than we had been assuming all along. If we haven't been asking the wrong questions, then it is obvious that we have been looking in the wrong place for the answers.

2. The solution

The mistake has been in looking for the source of /h/ in another consonant. The fact is that /h/ came from nothing! More precisely, /h/ developed from a non-distinctive feature of word onset in exactly the same way that initial glottal stop achieved phonemic status, i.e. *habàa* 'chin' < * \emptyset *aba* (phonetically [*h*aba]), *hanjii* 'intestines' < * \emptyset *anji* (phonetically [*h*anji]); cf. *ʔàbù* 'thing' < * \emptyset *abu* (phonetically [*ʔ*abu]), *ʔidòò* 'eye' < * \emptyset *ido* (phonetically [*ʔ*ido]).⁴ Prior to this relatively recent development, Hausa had words that were vowel initial, some pronounced with glottal

⁴Although speaking strictly synchronically, Parsons [1955:388] had the answer to the historical problem on the tip of his tongue twenty years ago: "h and ʔ ...are the realizations of zero consonant with voiceless and glottalized prosodies respectively."

attack, some with voiceless/aspirated attack, some perhaps allowing either. The origin of /h/ lay in the upgrading of this phonetic feature [h] to the status of a full phoneme. This was probably due to the influence of Arabic loanwords containing the consonant /h/ (or phonetically related sounds) and to the restructuring of Hausa phonotactics such that vowel-initial words were no longer admissible. In short, the answer to the mystery of /h/ in native Hausa words is $h < *∅$.

3. The internal evidence

3.1. The key to the solution came out of an attempt to account for an inconsistency between a synchronic restriction on word structure in present-day Hausa and the form of words possible in Old Hausa. A strict rule of Hausa phonotactics is that a word cannot contain more than one glottalized [+g|] consonant (apart from repetitions of the same segment). Words of the form $dV\dot{K}V$ or $s'V\dot{b}V$ are thus impossible. Since /ʔ/ counts as a glottalized consonant it follows that words of the shape $ʔVC_{[+g|]}V$ also do not occur. However, it is well-known--although often ignored--that the phonemic status of initial /ʔ/ is very recent, dating only from the period of extensive Arabic loanwords [Greenberg 1947] and that before that time Hausa must have had vowel-initial words, e.g. *abu 'thing' (now ʔàbù), *uku 'three' (now ʔukù). While the restriction against $ʔVC_{[+g|]}V$ words is understandable in modern Hausa, given the phonemic status of initial glottal stop, there is no reason on internal or comparative grounds why the intervocalic consonant of VCV words couldn't have been glottalized.⁵ But if Old Hausa had $∅VC_{[+g|]}V$ words and if all vowel-initial words subsequently added a glottal stop in front, then the result should have been words of the form $ʔVC_{[+g|]}V$, none of which exists. What then happened to the $∅VC_{[+g|]}V$ words that we can be sure did exist at an earlier stage in Hausa? One possibility is that $*∅VC_{[+g|]}V > ʔVC_{[-g|]}V$, i.e. the

⁵Other Chadic languages that share the restriction against having more than one [+g|] consonant per word (e.g. Ngizim) do allow the medial consonant of VCV words to be glottalized. To simplify the discussion I am phrasing everything in terms of the pattern (C)VCV. The same arguments would apply equally to words of other shapes such as (C)VCCV or (C)VCVCV.

phonemicization of /ʔ/ was accompanied by compensatory loss of the glottal feature in the medial consonant. While this process seems reasonable there is no evidence to show that it actually took place. A second possibility is that the C_1 added in the change $*\emptyset VC_2V > C_1VC_2V$ could have been something other than /ʔ/ in those cases where C_2 was [+g|]. Perhaps we had overstated the generality of the presumed $*\emptyset VCV > ?VCV$ rule. If /ʔ/ was prevented by phonotactic restrictions from being added to a vowel-initial word already containing a [+g|] consonant, some other "minimal" consonants must have done the job. For words beginning with *i* or *u*, the semivowels *y* and *w* could be expected to have served as the necessary C_1 , and for words beginning with *a* -- /h/ of course. Given a rule $*\emptyset aC_{[+g|]}V > haC_{[+g|]}V$, words such as **aba*, **ade*, **as'i*, or **aka* should show up in present-day Hausa not as *?aba* or *?aba*, for example, but rather as *haba*, *hade*, *has'i*, and *haka*.⁶ This second possibility is in fact what happened, thereby explaining both the apparent disappearance of $*\emptyset VCV$ words with a [+g|] consonant and the appearance of /h/ as a Hausa phoneme.

3.1.1. Initial /h/ and /ʔ/ both developed from $*\emptyset$ by the phonemicization of a prosodic feature of word onset. For phonotactic reasons, the C_1 added in the development $*\emptyset aC_{[+g|]}V > C_1 aC_{[+g|]}V$ had to be /h/ and not /ʔ/. The converse, however, was not true, i.e. there was no inherent reason why the C_1 added in the context of a non-glottalized medial consonant couldn't also have been /h/. The non-automatic nature of the choice of /h/ or /ʔ/ is evidenced by the existence of a small number of doublets or dialect variants, e.g. *hantàa/?antàa* 'liver', *hànzaa/?ànzaa* 'small shrub', *hanyàa/?amyàa* 'beehive'. The determination of whether $*\emptyset$ went to /ʔ/ or to /h/ in the environment of a [-g|] consonant is thus an empirical/historical question still to be investigated rather than a structural one. On the whole, /ʔ/ was probably the normal replacement for $*\emptyset$. However, /h/ may have been the phonologically favored C_1 in the specific environment __aNCV (e.g. *hanc`i* 'nose', *hannuu* 'arm/hand'), although morphological considerations may have been operative here (see section 5).

⁶Add tone and vowel length and one has the Modern Hausa words for 'chin', 'to swallow' (more usually *hadiyee*), 'corn', and 'dig'.

3.2. The discovery that initial /h/ < * \emptyset just like initial /ʔ/ explains another hitherto peculiar distributional restriction, namely the fact that in native words the a following /h/ and /ʔ/ is always short [Parsons 1955:388]. If h came from *x or some other obstruent, one would expect to find h plus long aa just as one finds long aa after f, s, sh, c, k, etc. The fact that this restriction applies not only to /h/ but also to /ʔ/ --and only to these two consonants--follows naturally from the fact that words that now begin with ha or ʔa were originally vowel initial, a position in which all vowels were automatically short. The a in haḍee 'to swallow', for example, is necessarily short not because of some synchronic peculiarity of the consonant /h/, but because the word is derived from *aḍe where the vowel was in initial position.⁷

4. The external evidence

The origin of /h/ from * \emptyset was discovered originally on internal grounds. The solution is confirmed by comparative evidence of two sorts: (a) direct evidence of cognates, and (b) indirect evidence of parallel development.

4.1. If Hausa /h/ developed from * \emptyset by phonemicization of a phonetic feature of word onset, it should correspond in cognate forms to \emptyset or to some phoneme recently derived from \emptyset , and not to x or k or any other consonant. The following is a list of seven highly probable cognate sets illustrating the correspondence h ~ \emptyset . The examples are all drawn from languages in the same branch of Chadic as Hausa (West Chadic branch), thereby minimizing the distance between the languages involved and maximizing the likelihood that one is dealing with true cognation and not accidental resemblance.

⁷This straightforward historical explanation for the restriction can be contrasted with Parsons' tortuous synchronic analysis [1970:277-78], which requires, among other things, that aa be analyzed synchronically as /ah/.

	<u>Hausa</u>	<u>Other West Chadic languages</u> ⁸
'arm'	hannuu	amai (Ngizim) ⁹
'ashes'	habɗii	afut (Ron-Bokkos) ¹⁰
'intestines'	hanjii	anji (Ron-Kulere) 'stomach'
'liver'	hantàa	andad (Ngizim)
'nose'	hancii	atin (Ron-Bokkos)
'to swallow'	hadée	ade (Kanakuru) 'to eat'
'tongue'	harshèe	alis (Ron-Bokkos)

4.2. Contrary to the usual Afroasiatic pattern that requires every syllable to begin with a consonant,¹¹ Proto-Chadic had vowel-initial words [Newman, in press], e.g. *am 'water', *atən 'nose'. This was also true of Hausa until recently and still holds for many present-day Chadic languages. This fact has been obscured, however, because of the widespread practice by Chadicists of inserting glottal stops indiscriminately in front of all words beginning with a vowel in whatever language they happen to be studying. Influenced by the awareness that Hausa words that are written with initial vowels in standard orthography really begin with /ʔ/, and should be so indicated in scientific works, they have carried this practice over to languages in which there is no phonological justification for doing so. The result is a kind of linguistic hypercorrection that falsifies synchronic descriptions and misleads the comparativist, who is unable to

⁸Citations from Gwandara [Matsushita 1972] are not relevant since initial \emptyset in Gwandara (a recent offshoot of Hausa) is the result in most cases of a dropping of /h/ subsequent to its separation from Modern Hausa.

⁹This etymology, which requires that one extract the underlying root *(a)m- from hannuu, was first suggested by Lukas [1968:105].

¹⁰Jungraithmayr [1970] transcribes his Ron examples with a glottal stop before the vowel. However, since this initial glottal stop does not appear to be phonemic, I have omitted it wherever I have had occasion to cite Ron examples (see discussion in section 4.2).

¹¹"According to rules common to Semito-Hamitic, not excepting the Tchad languages, no syllable can begin...with a vowel" [Diakonoff 1965:25]. Proto-Chadic is also an exception to Diakonoff's statement that glottal stop is a phoneme that is "common to (or, at least, can be easily re-constructed in) the phonological system of all Semito-Hamitic languages" (p. 19).

tell from the transcription system employed whether a language really has initial glottal stop or whether, as is usually the case, its appearance is a gratuitous embellishment by the linguist.

It is only by recognizing the existence and pervasiveness of vowel-initial words in Chadic that one can appreciate the historical changes to which such words have been subjected. Although Proto-Chadic deviated from the characteristic Afroasiatic pattern, a number of Chadic languages since have independently rejected the heresy and have reestablished the rule that all words should begin with a consonant. The general mechanism for achieving this has been the insertion of a dummy C_1 , usually a semi-vowel (as in the case of Zaar) or less often a glottal stop (as seems to be the case with Bole [Lukas 1966]). What is particularly interesting is that languages other than Hausa have also made use of /h/ to replace initial \emptyset followed by a . Compare the following two cases where the $*\emptyset > h$ change has taken place independently of Hausa and of each other.

	<u>Gera (Bole Group)</u> ¹²	<u>Other Bole languages</u>
'bite'	had-	ad- (Geruma)
'intestines'	haza	ashi (Galambu)
'thorn'	hara	ara (Galambu)
'water'	ham	amma (Geruma)
	<u>Ron-Fyer</u>	<u>Other Ron languages</u>
'give birth'	hal	al (Ron-Bokkos)
'tooth'	hangor	angur (Ron-Bokkos)
'water'	ham	am (Ron-Kulere)

5. The ha prefix

Many native Hausa words beginning with ha are terms for parts of the body, e.g. habàa 'chin', hakàrkarii 'rib', hakoorii 'tooth', hans'aa 'udder', hamàtaa = hammàtaa 'armpit', hanc'ii 'nose', hanjii 'intestines', hannuu 'arm/hand', hantàa 'liver', harshèe 'tongue'. Following Leslau's [1962] suggestion of a possible connection between the initial

¹²Information on Gera and related languages--including the specific sound law described here-- has been taken from unpublished materials of Russell G. Schuh, to whom I am most grateful.

h in these words and a prefix h found elsewhere in Afroasiatic (in Mehri (south Arabian) and Egyptian) it has become normal to speak in terms of a *ha* body-part prefix in Hausa. Nevertheless, from a Hausa/Chadic point of view the idea that *ha* might be a survival of an archaic Afroasiatic prefix seems unlikely. In the first place, the corresponding prefixes in Hausa and in Mehri and Egyptian look too much alike given the presumed time depth involved. Second, the putative prefix involves a Hausa consonant that is extra-systemic and poorly integrated in the Hausa phonological system, which should not be the case if an archaic consonant were involved. Finally, the prefix seems to be limited to Hausa, no traces of it having been reported elsewhere in the Chadic family.

Now that we know where Hausa /h/ came from, we can re-open the question of the body-part prefix and perhaps throw some light on the subject. Since /h/ < * \emptyset , the Hausa body-part prefix--if it exists at all--concerns initial *a* not *ha*. With this simple adjustment we now find, contrary to what was just said above, that other Chadic languages do evidence a similar phenomenon. In Dangla (an East Chadic language) words with initial *a* are very often body-part terms, e.g. *adi* 'stomach', *adika* 'liver', *aado* 'intestines', *aaro* 'back', *aaye* 'tail', *ase* 'leg'.¹³ Similarly in Masa (a language spoken in the Cameroon/Chad border area) one finds that the words for 'nose', 'lower arm', 'leg', 'cheek', 'bone', 'shoulder', and 'elbow' all begin with *a* [Lukas 1937]. Turning to Ron-Bokkos, a more closely related language belonging to the same branch as Hausa, we also find body-part terms appearing with initial *a*, in this case explicitly described as a prefix [Jungraithmayr 1970:99], e.g. *afoor* 'thigh', pl. *foray*; *angur* 'tooth', pl. *nguray*; *alis* 'tongue', pl. *lisas*; *atin* 'nose', pl. *tinan*. Adding Hausa to the list we have four clearcut cases where initial *a* in Chadic is associated with body-part terms. Whether this *a* is or was a prefix in the true sense of the term is hard to say. It is possible that it was felt to be a prefix in Old Hausa and that this explains why all the body-part terms with initial * \emptyset *a* change to *ha* rather than

¹³Fédry [1971] explicitly states that there is no glottal stop in Dangla and that vowel-initial words are truly vowel initial.

some changing to *ha* and some to *ʔa*, as would have been expected on strictly phonological grounds. The fact that the initial *ha* in body-part terms always has the same tone (high) would argue in favor of its having had some kind of prefixal status.

In Proto-Chadic, on the other hand, the initial *a* looks like an integral part of the lexical item rather than a prefix. Words reconstructed with initial *a* are not all body-part terms, nor do most body-part terms have an initial vowel [Newman, in press]. Nevertheless, Proto-Chadic probably had considerably more *a*-initial body-part terms than we have been able to reconstruct up to this point, and this inventory, plus secondary analogic developments, could account for the high incidence of *a*-initial body-part terms in various languages throughout the family. Whether the word initial *a* in Proto-Chadic is ultimately related to the *h* prefix in Mehri and Egyptian is an open question. All one can say here is that the possibility is in no way lessened by the greater phonological and morphological differences that exist as compared with the earlier direct identification of *h* and Hausa *ha*.

6. Summary

Since the phoneme /h/ occurs in a number of basic native words, scholars had assumed that its origin would lie in some previously-existing consonant(s). It was shown, however, that /h/ developed from **∅* by the phonemicization of a phonetic feature of word onset along the same lines described by Greenberg [1947] for the origin of /ʔ/. This solution, discovered in the course of investigating internal anomalies in Hausa structure, was confirmed by comparative evidence illustrating a regular correspondence between /h/ in Hausa and *∅* in closely related Chadic languages. Having demonstrated that *h* < **∅*, the similarity of initial *ha* in Hausa body-part terms to an *h* prefix found in Mehri and Egyptian [Leslau 1962] could be seen to be accidental. The real connection of Hausa *ha* was shown to be with an initial *a* commonly occurring in body-part terms in various Chadic languages and reconstructable for Proto-Chadic. Although in Proto-Chadic this *a* was almost certainly an inseparable part of individual lexical items and not a prefix, it may have functioned as a prefix in Old Hausa, at least to the extent of keeping body-part terms together as a set

for purposes of the * \emptyset a > ha change. Finally, the paper taken as a whole illustrates once again the need in historical research to combine comparative work with in-depth internal analyses, the need to treat languages as dynamic systems rather than collections of traits, and the danger of drawing conclusions from surface similarities no matter how numerous or how striking they might appear.

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