

HRE CONTACT AND THE ORIGINS OF THE HAROI RESTRUCTURED REGISTER SYSTEM: A CASE OF SHARED SOUND CHANGES¹

Graham Thurgood
California State University, Fresno

Introduction

Southeast Asia provides some instructive examples of the respective roles played by internal and external factors in the development of register complexes and tone systems while in contact with languages with such systems. In the case of Haroi, it provides a clear example of external language contact initially resulting in a register system, and then evolving into a restructured register system. In the Haroi developments, the internal factors, the oft-mentioned 'language-internal pressures and imbalances', have played a minor, almost insignificant role, while the external contact has provided both the impetus and the directionality for the restructuring. In this data, the role of language-internal 'imbalances' and 'pressures' is limited largely to constraining the paths by which the restructuring occurred.

This discussion of the evolution of Haroi incorporates much of my earlier work on Haroi, but is much more specific in its discussion of the precise contact situation and the precise changes involved; it also goes beyond earlier work first in recognizing that certain Haroi changes predate contact with Hre and then in correlating the post-contact changes specifically with the changes found in Smith's (1972) reconstruction of Proto-North-Bahnaric (PNB), a correlation that requires minor reworking of some of Smith's reconstructions, particularly the interaction between vowel changes and phonation types.

Modern Haroi is a Chamic language now located in the highlands of Vietnam. It is a member of the Chamic subgroup of Western Malayo-Polynesian, a group found predominately along the coast and in the highlands of Vietnam (e.g. Haroi, Cham, Northern Roglai, and so on), but also on Hainan Island just off mainland China (Tsat), and in northern Sumatra (Acehnese). The Chamic languages have been under intense influence from Mon-Khmer languages, as is obvious from the borrowing patterns and the direction of the internal restructuring.

Pre-Haroi Chamic restructuring

The Haroi restructuring involves two stages. Long before becoming Haroi, the pre-Proto-Chamic precursor of Haroi underwent a major prosodic restructuring under the influence of the Mon-Khmer languages then found along the coast of Vietnam.

Stress and the syllable structure. The pre-Chamic Austronesian speakers who arrived on the coast of Vietnam most likely brought with them a largely disyllabic lexicon with predictable stress: in disyllabic forms stress was penultimate unless the vowel of the initial syllable was a shwa; when that was the case, the stress fell on the final syllable (cf. modern Bahasa Indonesia or Bahasa Malaysia). Under the influence of Mon-Khmer languages, this canonical preference for penultimate stress was replaced by a preference for final stress. Thus, by early proto-Chamic (PC) most, although not necessarily all, disyllables had final stress.

Register complexes and voice quality. Register complexes were also acquired sometime after the arrival on the coast of Vietnam, with the pre-Haroi voice quality component (phonation distinctions) of register consisting of breathy voiced vowels after voiced obstruents and modal (or, clear) voiced vowels after the remaining consonants. It is these voice quality distinctions on the vowels that produced the vowel splitting so distinctive of Haroi historical phonology.

The Haroi internal paths of change

Modern Haroi has what Huffman (1976) termed a restructured register system. In the case of Haroi, between PC and modern Haroi the following chain of events has occurred: (1) certain classes of initials led to distinctive phonation differences on the following vowels, that is, a register system with voice quality differences; (2) the voice quality differences on the vowels produced vowel distinctions, that is, led to a register system with vowel registers; and, (3) the voice quality distinctions that originally conditioned the vowel splits disappeared, leaving behind a large number of now unconditioned vowel distinctions; in Huffman's terms, it became a restructured register system with the proliferation of vowels associated with restructured register systems.

Voice quality and the vowel splitting patterns

The remaining changes occurred within the history of Haroi while Haroi² was in contact with Hrê.

Modern Haroi reflects a major realignment and splitting of the original PC vowel system. The major vehicle for these multiple reflexes is voice quality-induced vowel splitting. Under the influence of tense voice (the phonation induced by the proto-voiceless obstruents) certain monophthongs were lowered and certain diphthongs had their onsets lowered. And, under the influence of breathy voice (the phonation induced by the proto-voiced obstruents), certain monophthongs were raised and certain diphthongs had their onsets raised.

Table 1: Restructured register and Haroi vowel splitting

PC initial classes:	PC voiceless obstruents >	all other PC initials >	PC voiced obstruents >
Voice quality:	tense voice >	modal voice >	breathy voice >
Effects on vowels:	high vowels lower >	no effect >	low and mid vowels raise >
Result:	proliferation	of	vowels

For monosyllabic words, the various vowel types interacted with the manner of articulation of the PC syllable-initial consonant to produce the modern vowel splitting patterns. These vowel splitting patterns are summarized in Table 2 (below).

Transparency and phonation spreading

Table 1 does not, however, account for all the vowel proliferation. In specific cases, the voice quality induced by the onset of the presyllable spreads through main-syllable sonorant onsets. As a result, it is not the onset of the main syllable but the onset of the presyllable that correlates with the voice quality of the main syllable. Haroi spreading patterns are simple: the main-syllable initial sonorants are transparent to spreading from all obstruents in the pretonic syllable.

Table 2: Consonant types, vowel classes, and vowel splitting

	voiceless obstruents > tense voice	glottalized obstruents, voiced aspirates, & sonorants	voiced obstruents > breathy voice
high vowels; * -əŋ > * -iŋ	(onset) lowered; > -əŋ	unchanged	unchanged
centering diphthongs: * ua > * oa * ia > * ea	unchanged	unchanged	raised and backed: ** -ia > -īa ; ** -ua- > -ūa ; -ɔ̄ - ʌ m , -ʔ
mid * ɛ ; * ə ; * ɔ̄ ; * -ɛ̇i̇ > * -ɔ̇i̇	unchanged	unchanged	raised: ɛ̇ ; i̇ ; ɔ̇ (u); -i̇ [(fronted)]
low vowels	unchanged	unchanged	developed -i̇ - onset

Thus, with a minor exception noted below, if the main syllable begins with a sonorant, the phonation class of the main syllable is determined by the initial consonant of the pretonic syllable, not the main syllable: if the pretonic syllable begins with a voiced obstruent, the main syllable vowels reflect the effects of this voiced obstruent, while if the pretonic syllable begins with a voiceless obstruent other than *s or *h, the main syllable vowels reflect this voiceless obstruent (cf. Burnham 1976; Lee 1977:88). If the main syllable onset is other than a sonorant, spreading does not occur.

Haroi external contact with Hrê and its influence

The evidence of Hrê contact is not controversial. Hrê has undergone vowel realignments quite parallel to those undergone in Haroi. The evidence can be culled, with some minor readjustments of the

reconstructions, from Smith's (1972) reconstruction of Proto-North-Bahnaric (PNB), which includes Hrê. With minor modifications in the vowel reconstructions, it becomes evident that, with the Hrê vowels that changed height, the Hrê reflexes of PNB vowels had lowered under tense voice and raised under breathy voice.

As Table 3 shows, the PNB high vowels have lowered in Hrê under tense voice, the same phonation type that led Haroi high vowels to lower.

Table 3: Hrê high vowels lowered under tense voice

PNB (Smith, modified)	Hrê	
*tum	tôm	'all'
*bič	beč	'fat [v]'
*c(h)uy	čôy	'plant rice'
*pih	pêh	'pound rice'
*asih	asêh	'horse'
*rih	rêh	'play [instrument]'
*taqnih	taneh	'earth, soil'
*(q)bul	bo	'lizard; gecko; salamander'
*kačīyh	kačêh	'sneeze'

And, as Table 4 shows, the PNB mid and low vowels have raised in Hrê under breathy voice, the same phonation type that led Haroi mid and low vowels to raise.

Table 4: Hrê mid and low vowels raised under breathy voice

PNB (Smith, modified)	Hrê	
*čëm	čim	'bird'
*klèč	klič	'deaf'
*phèw	phèw	'happy'
*adrày	adri	'pestle'
*hày	hi	'day; sun'
*plày	pli	'fruit; egg; round object clf.'

In short, the Haroi and the Hrê changes are not just parallel, but the Haroi changes took place while in intense contact with Hrê.

Table 5: PNB *-ay Hrê reflexes: raising under breathy voice

PNB (Smith, modified)	Hrê	
*bray	bray	‘thread’
*katayh	katayh	‘hip’
*may	may	‘sister in-law; elder sister’
*baɾay	maɾay	‘people’
*adràɣ	adri	‘pestle’
*hàɣ	hi	‘day; sun’
*plàɣ	pli	‘fruit; egg; round object clf.’
*qbàɣh	bih	‘snake’

Notice that when the PNB *-ay was under other than breathy voice, the Hrê reflexes remain *-ay, but when the PNB *-ay was under breathy voice, the high vowel reflex occurs.³

The conjectures about the earlier sociolinguistic situation are somewhat speculative, but it was likely a combination of some shift accompanied by long-term bilingualism. At the earliest stages, Haroi would still have been a dialect of the then prestigious Cham language, and thus some speakers of Hrê may have shifted to Haroi. Since then, however, Cham has suffered a considerable loss of prestige, and at some point the roles became reversed with the Haroi now assimilating to the Hrê, a reversal of the earlier situation.

In any case, two things are well-attested: Ethnographically, the Haroi have been heavily influenced by Bahnar, in particular by the Hrê. Under these influences, Haroi has undergone a set of changes typologically parallel to the changes in Hrê. Specifically, during this period of social and linguistic contact, the Haroi vowel system has been realigned, coming to resemble the Hrê vowel system.

Conclusions

The Haroi case nicely illustrates the respective roles played by external language contact and by internal paths of change: the external contact has provided both the impetus and the directionality for the changes, while the language internal structures have provided constraints on the potential paths for the changes.

As a corollary to the primary role played by contact in this and other Haroi changes, the major Haroi changes have not come about gradually. Rather, the opposite is true: since the major changes in Haroi

came about with the onset of intense contact, the major changes are characterized by short periods of rapid, assimilative restructuring, beginning with the onset of intensive contact and followed by periods of relative stasis and more minor changes—continuing until the next significant period of contact. The non-contact induced changes are far more minimal.

Similar restructurings, powered by contact situations and presumably abrupt rather than gradual, are found throughout Southeast Asia (for example, Thurgood 1992, 1996). In fact, it would be reasonable to conclude that, in the Southeast Asian linguistic area, it is contact that has provided the impetus for most of the major changes with language-internal factors only influencing the paths by which such changes take place.

Finally, the most interesting part of this particular change may be that it seems to have been a change in part shared both by Haroi and Hrê, that is, given both the timing of the changes and their striking similarities, it looks like the best way to view the changes is as being one that was shared by the Haroi and the Hrê speakers, that is, for monolingual Hrê speakers it of course occurred in their Hrê but for those Haroi speakers bilingual in Hrê, it occurred not only in their Hrê but the change was also extended to their Haroi. Thus, in this sense, the change was shared between the two languages.

Notes

- 1 This paper involves significant extensions and reworkings of my earlier work on Haroi.

Symbols used: forms prefaced by a single asterisk (*) are proto-forms; forms followed by -i have an irregular initial, by -f have an irregular final, by -v have an irregular vowel, and by -t have an irregular tone. As the historical phonology is better understood, at least some of these apparent irregularities should disappear, while others will remain puzzles.

- 2 The name Haroi itself may simply be a borrowed variant of the Mon-Khmer Hrê.
- 3 Although these particular patterns appear quite clear, much reworking of Smith (1972) is needed to fully make sense of the interaction of vowel changes and phonation types.

References

- Burnham, E. C. 1976. The place of Haroi in the Chamic languages. MA thesis, University of Texas at Arlington.
- Goschnick, H. and A. Tegenfeldt-Mundhenk. 1976. Haroi dictionary. SIL. Huntington Beach, CA. 325. ms.
- Goschnick, H. 1977. Haroi clauses. In Thomas, et al. *Papers in South East Asian Linguistics. No. 4. Chamic Studies*. Canberra: Pacific Linguistics. Series A, No. 48. 105-124.
- Gregerson, Kenneth J. 1976. Tongue root and register in Mon-Khmer. In *Austroasiatic Studies I*, edited by P. N. Jenner, L. C. Thompson, and S. Starosta. Oceanic Linguistics special publication no. 13. Honolulu, Hawaii. 323-70.
- Huffman, F. E. 1976. The register problem in fifteen Mon-Khmer languages. In *Austroasiatic Studies*, edited by P. N. Jenner, L. C. Thompson, and S. Starosta. Special publication of Oceanic Linguistics no. 13. 2 volumes. Honolulu, Hawaii: University of Hawaii Press. I:575-90.
- Lee, E. W. 1966. Proto-Chamic phonologic word and vocabulary. Ph.D. Indiana University. 67-3690.
- _____. 1974. Southeast Asian areal features in Austronesian strata of the Chamic languages. *Oceanic Linguistics* XIII.1-2:643-668.
- _____. 1977. Devoicing, aspiration, and vowel split in Haroi: evidence for register (contrastive tongue-root position). In Thomas, et al. *Papers in South East Asian Linguistics. No. 4. Chamic Studies*. Canberra: Pacific Linguistics. Series A, No. 48. 87-104.
- Smith, K. D. 1972. *A phonological reconstruction of Proto-North-Bahnaric*. (Language Data, Asian-Pacific series, no. 2). Santa Ana, CA: SIL. 109.
- Tegenfeldt-Mundhenk, A. and H. Goschnick. 1977. Haroi phonemes. In Thomas, et al. *Papers in South East Asian Linguistics. No. 4. Chamic Studies*. Canberra: Pacific Linguistics. Series A, No. 48. 1-15.
- Thomas, D. D., E. W. Lee, and D. L. Nguyen. 1977. *Papers in South East Asian Linguistics. No. 4. Chamic Studies*. Canberra: Pacific Linguistics. Series A, No. 48.

Thurgood, G. 1992. The aberrancy of the Jiamao dialect of Hlai: speculation on its origins and history. In *First Annual Meeting of the Southeast Asian Linguistics Society, 1991*, edited by M. Ratliff and E. Schiller. Tempe: Arizona State University Southeast Asian Studies Publication Program. 417-433.

_____. 1996. Language contact and the directionality of internal 'drift': the development of tones and registers in Chamic. *Language*. 71,1:1-31.