

AUSTRONESIAN AND MON-KHMER COMPONENTS IN THE PROTO CHAMIC VOWEL SYSTEM

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1. INTRODUCTION¹

The Austronesian speakers who arrived on the coast of the Southeast Asian mainland spoke a basically disyllabic language with a relatively modest vowel inventory. The morphemes were typically disyllabic, more specifically, CVCV(C), and there were four basic vowels: *-a, *-i, *-u, *-e (= [-ə]) and three final diphthongs: *-ay, *-ui, and *-aw; the four vowels occurred in both syllables of the disyllabic forms while the diphthongs were restricted to the final syllable.

Under the influence of what was apparently more than casual contact with Mon-Khmer (MK) languages, this pre-Chamic Austronesian (An) language adopted the main-syllable stress of the neighbouring MK languages, a change that had consequences both for the morpheme structure and for the vowel inventories of Proto Chamic (PC). By the time of PC, the formerly disyllabic Austronesian roots had become iambic (in the sense of Donegan 1993); that is, the formerly disyllabic morphemes came to have an unstressed initial syllable followed by a stressed main syllable. This iambic PC stress pattern is certainly reflected in the contrasts between the vowel inventories of the pre-syllable and the main syllable. Unlike in the Austronesian disyllables where there was a balanced four-way vowel contrast in both syllables,² in PC the vowel inventories are anything but symmetrical: in the unstressed PC pretonic syllable, the four-way Austronesian vowel distinction has been reduced to a three-way distinction while in the stressed main syllable the same four-way distinction, has been expanded to 18 or so distinct vowels, not counting length contrasts.³

Some of these new main-syllable vowels developed out of splits of inherited Austronesian vowels, but the bulk of the forms with new vowels are found in pre-Chamic borrowings from MK. Thus, the main vowels of PC include two readily discernible historical layers: those vowels inherited from Austronesian, which form the core of the basic vowel system, and

¹ A large number of people provided me with wide-ranging assistance in the preparation of this paper. Especial thanks are due to Mark Durie, David Solnit, Bob Blust, Jerry Edmondson, Karen Mistry and Elzbieta Thurgood. The paper is based on work supported by the National Science Foundation under Grant No. SBR-95121101.

² However, it appears that this four-way Austronesian vowel distinction was already on its way to becoming a three-way distinction in parts of Western Malayo-Polynesian.

³ It needs to be pointed out, however, that some of the expansion of the vowel inventory is due to borrowing from MK.

those vowels which primarily reflect MK influence and overwhelmingly occur in pre-Chamic MK borrowings.

While distinguishable, the two layers are not completely distinct: sometimes the phonology of the MK borrowings matched the phonology of the Austronesian lexicon, making the borrowed form indistinguishable on purely phonological grounds from inherited Austronesian forms; undoubtedly, sometimes the phonology of the MK borrowings was restructured by the pre-Chamic speakers to match the phonology of the Austronesian lexicon, again making the forms blend phonologically with the inherited Austronesian forms; but, in a way that is at times strikingly obvious, sometimes new phonological contrasts accompanied the MK borrowings.

Among forms carrying new phonological contrasts, the overwhelming majority of the words are identifiable as MK loans into pre-Chamic, while the bulk of the remaining forms are potentially of MK origin as they lack etymologies, Austronesian or otherwise. However, although overwhelming preponderance of forms containing new vowels are MK borrowings or possible MK borrowings, sprinkled in among the MK forms, there are also usually one or two words with straightforward, well-attested Austronesian etymologies. Two things appear to have happened in such words. First, the MK contact led to the development and phonemicisation of a vowel distinction already present in the phonetics of the Austronesian forms. Second, the development of the new sound in an Austronesian form would have significantly lessened the need to restructure the incoming MK loan words containing this vowel.

1.1 THE LITERATURE

The literature on Chamic vowels contains considerable discussion of the correspondences between An and PC (e.g. Blood 1962, Pittman 1959 and Thomas 1963), as well as a more limited discussion of the reflexes between PC and the modern Chamic languages (primarily Lee 1966, but also Burnham 1976 and others). However, two more recent developments make it possible to clarify, expand upon, and, in some cases, revise this earlier work. First, there has been a greatly expanded awareness of precisely which forms are MK borrowings; the use of Headley (1976) augmented by preliminary reconstructions of two branches of Mon-Khmer found in Vietnam (H. Blood 1968; Smith 1972) not only has allowed the recognition of a large number of MK loans but also—in conjunction with other revisions—has made it possible to work out a rough chronology for many of the loans, classifying them as either pre-Chamic or post-PC loans. Second, the database has expanded enormously, leading to numerous revisions in the individual lexical items and some modification in the overall schema, although much of Lee's outline is still quite workable today. In addition, of course, other recent literature in Chamic studies has also contributed to our understanding of PC vowels and their correspondences (e.g., Ni 1988a, 1988b, 1990a, 1990b; Haudricourt 1984; Benedict 1984; Blust 1969, 1980a, 1980b, 1981, 1983–84, 1986, 1989).

The only work to set out main vowel correspondences of PC was Lee (1966). Since then expanded knowledge of various Chamic languages makes the time appropriate for revisions. One source of revision is the realisation that some 10% of Lee's reconstructed forms are MK borrowings, many of them not even pre-Chamic borrowings but post-PC borrowings and thus are not legitimate input to PC reconstruction. The removal of these post-PC borrowings from the database eliminates certain of Lee's marginally attested vowel correspondence

patterns completely while simplifying others. A second development leading to the modification of Lee's protoforms is a reanalysis of his treatment of nasalised vowels. Lee often reconstructed nasalised vowels to account for the failure of certain Roglai word-final nasals to denasalise. However, the elimination of late borrowings from the database allows an alternative treatment of the Roglai patterns, which in turn makes it clear that the Roglai changes are internal to Roglai and, thus, no longer reconstructable to PC. Finally, as the result of modifications in the treatment of numerous individual words, it has been possible to reconstruct *ɔ̃ where Lee reconstructs both *ɔ̃ and *o. This treatment reassigns the various *ɔ̃ reflexes largely to *ə, but occasionally elsewhere. As a general consequence of the accumulation of numerous minor revisions, this paper provides new reconstructions of the PC main vowel reconstructions, modifying Lee (1966).

As has already become obvious, this discussion of PC main-syllable vowels divides the relevant discussion into four time periods: the Austronesian period predating contact with MK languages; the pre-Chamic period, in which early contact occurred but which predates what we reconstruct as PC; the stretch of time during which what we reconstruct as PC Chamic was spoken; and the period following the break-up of PC.

1.2 PC VOWEL LENGTH

As will become clear later, vowel length in PC involves the interaction of the Austronesian inherited vowels with the MK vocalic contributions to PC. Here it is enough to make several comments on the distribution of vowel-length contrasts. In PC, vowel length occurs only for specified vowels and then only in certain contexts. As Lee (1966:117) noted, the "length contrast seems to be fairly certain for *a, *u, and *ɔ̃, but (as is true of the daughter languages) is limited to certain environments". The questions in the reconstruction of length revolve around determining precisely those finals before which length occurs and those before which it does not occur. The PC *a occurs both long and short before final -ʔ, -ŋ, -k, -l, -r, and marginally before -t (see Table 26). The PC *ɔ̃ occurs both long and short before final -ʔ, -ŋ, and -k (see Tables 36–40). The PC *u occurs both long and short before final -ʔ and -ŋ (see Tables 11 and 13–16).

Other residual evidence of vowel length seems to exist in various daughter languages but it is not (yet?) possible to reconstruct it. For instance, the length distinctions in Rade suggest that there may have once been a distinction between -a:m and -am; however, if so, it has been totally obscured elsewhere by subsequent developments throughout Chamic.

TABLE 1: CONSTRAINTS ON THE OCCURRENCE OF PC VOWEL LENGTH

*-ǎ- versus *-a:-	/__?; /__ŋ; /__k; /__l; /__r; /__n; /__t (marginal)
*-ɔ̃- versus *-ɔ̃:-	/__?; /__ŋ; /__k
*-ũ- versus *-u:-	/__?; /__ŋ

Notes on tables:

- a) An in these tables refers to an Austronesian reconstruction that at least predates Chamic; many of these forms, of course, do not reconstruct all the way back to Austronesian. Two levels of borrowed entities are distinguished: borrowings

predating PC are marked by *^{*} with the ^{*} indicating that the form was borrowed and the * indicating that nonetheless it reconstructs back to PC. Borrowings postdating PC are simply marked by ^{*}. Most likely all the *ə forms should be prefaced in one of these ways.

- b) Apparent irregularities in the correspondences are indicated by a hyphen followed by a consonant indicating precisely what is irregular: -v = irregular vowel, -c = irregular consonant, -f = irregular final, -vr = irregular vowel register, -t = irregular tone, -ⁿ = irregular nasalisation, -l = irregular length, -iv = irregular initial and vowel, -ivf = irregular initial, vowel, and final, -r = irregular correspondence for /r/, -vg = the initial vowel is irregular, and so on.
- c) The symbol (m) indicates metathesis.
- d) 'Bahnar (AC)' refers to the Bahnar forms cited in Aymonier and Cabaton (1906).

2. THE PC MAIN-SYLLABLE VOWELS INHERITED FROM AUSTRONESIAN

The pre-contact Austronesian language that was to become Chamic had a vowel system consisting of four main vowels, occurring in either syllable, and three diphthongs, occurring only in the second syllable (see Table 2).

TABLE 2: An MAIN VOWEL REFLEXES IN PC

An second-syllable vowels		PC main-syllable vowels	
*i	*u	*-i- *-əi	*-u- *-əu
*e [ə]		→	*ă
*a			*a
*ay	*uy		*-ay
*aw			*-au
			*-ui

The reflexes of these Austronesian vowels in PC are straightforward for the most part, with the subsequent PC reflexes set out in the tables below. In certain cases, particular developments are discussed in more detail. The essence of the An > PC changes, however, is relatively simple. The two high Austronesian vowels underwent splits, diphthongising in final position, but remaining -i- and -u- in closed syllables; these developments are also further conditioned in minor ways by an apparent interaction with stress placement (see discussion at §2.1 below). Austronesian shwa became *ă before certain finals but merged with *a before others; this led to a length distinction between PC short *ă and PC long *a before the finals where *ă was maintained (see Table 3 and further discussion in §2.5).

The original An shwa is realised as PC short *ă (Table 3); note that the PC words reconstructed with shwa are not inherited from An, but instead are borrowed from MK! The realisation of An shwa as PC *ă, by introducing a contrast with PC *a, introduced a vowel-length distinction into PC.