THE ROLE OF PHONETICS IN THE EVALUATION OF RECONSTRUCTED SOUND CHANGE

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ABSTRACT
This paper considers a typical case of reconstructed sound change whose mechanics are much debated. It is argued that an evaluation of the current explanations for the change is best made using an approach which begins with a consideration of the phonetics of the starting point, and then supports predictions for change with attested diachronic parallels. An evaluation thus made forces a rejection of the current theories and the proposal of a new explanation.

1. INTRODUCTION
A basic tenet of historical phonological reconstruction is that a phonetically plausible process of change connects the reconstructed starting point and the reflexes on which this is based. How the “phonetic plausibility” of reconstructed sound change is assessed seems to be rather vague. It is summarized critically by Lass [1, 171-2]: “our intuitive (or ‘inductive’) judgement of likelihood, based on pseudo-statistics of recurrence of change-types...as well as in some but not all cases” stipulations derived from knowledge of the kinds of articulatory or perceptual processes involved.” Phonetic plausibility then seems to be assessed mainly by reference to intuitive feelings about how languages change.

In many cases, reference to parallel changes, and a general consideration of the phonetics of the sound in question do provide a fair guide. But there are some for which this approach is not useful; such a case will form the focus of this paper: the development of the Proto-Indo-European (PIE) voiced aspirates.

2. THE ITALIC DEVELOPMENT
“Italic” refers to a language group including Latin and the “sister” languages spoken on the Italian peninsula, attested from the seventh century BC (see Fig. 1). The languages fall into two main groups, Latin/Faliscan, and Sabellian, to which Oscan and Umbrian belong.

![Figure 1. The Italic languages](image)

The development may be summarized taking the labial stop as representative: word-initial: PIE *bh- > Lat. f-
word-internal: PIE *bh- > Lat. -b-

The reflexes vary according to their position in the word (for the evidence, see, e.g. [2]). In word-initial position PIE *bh- appears in Latin and Sabellian as f-, probably a voiceless labiodental fricative, thus PIE *bhrst ‘brother’ is found as Latin frater, Oscan fratrún.

In word-internal position PIE *bh- appears as Latin -b- and Sabellian -B-, which represents a voiced fricative, probably bilabial or labiodental, given here as -b-. So PIE *bhrst ‘to you’ (dat. sg.) gives Latin tibi, Umbrian tefe.

The starting point of the change is usually taken to be a series of “voiced aspirates”, phonetically breathy voiced stops, such as are found in contemporary North Indian languages, e.g. Hindi; their reconstruction for PIE is accepted here as unproblematic.

2.1. Previous Explanations
The changes have been explained by two competing theories, which I call here “Ascoli” [3] and “Rix” [4] (Fig. 2).

According to the “Ascoli” account, the PIE voiced aspirates devised in all positions in the word to voiceless aspirates, which then became voiceless fricatives. At this stage word-internal voicing occurred, leaving an allophonic distribution of voiceless fricatives in...