Chapter Abstracts of


**Part I Reconstruction of Proto-Basque**

**Chapter 1 Basque and Proto-Basque**

This chapter provides an introduction to the Basque language, its dialects, sources for linguistic data on the language, the relationship of Basque to Aquitanian, and a brief history of scholarship on the language. The chapter also introduces the central goal of Part I of the book: to reconstruct the sound system and root lexicon of Proto-Basque, the mother language of all Euskarian languages, as far back in time as evidence permits. Within the field of historical linguistics, Basque is viewed as an isolate, meaning that there is no genetic relationship between Euskarian languages and any other known languages, living or extinct. As a consequence, the comparative method of historical linguistics, contributes to the reconstruction of Proto-Basque only at the level of dialects and comparison of Basque to Aquitanian. Comparative work must be combined with internal reconstruction. The method of internal reconstruction, like the comparative method, is based on the Neogrammarian hypothesis that sound change is regular. In this chapter the most widely accepted proposals for Proto-Basque phonology that make use of dialect comparison and internal reconstruction are reviewed, with focus on Michelena’s collected works Lakarra’s more recent studies of root structure.

**Chapter 2 The Proto-Basque Vowel System**

Nearly all scholars agree that Proto-Basque had a simple five vowel system with vowels *i e u o a* and no vowel length. This chapter reviews the foundations of that position, and presents a re-evaluation of Michelena’s proposed falling diphthongs. In nearly all cases, these diphthongs are suspect. Three unique contributions to the study of Proto-Basque vowels are offered. First, there is recognition of a special class of disyllabic *h*-medial roots. One special property of these roots is that they can not begin with voiceless stops. A second feature of the Proto-Basque vowel system that is formalized is prosodically conditioned vowel neutralization and loss in historical compounding. A third finding is that, though, overall, vowels have been relatively stable in the history of the language, the methods of internal reconstruction used in this volume reveal a large number of root-sets of two, three and four members, where roots have similar meanings but distinct vocalism. Some of these root-sets play an important role in the external comparison with Proto-Indo-European offered in Part II.
Chapter 3 A revised Proto-Basque Consonant System

Four innovations in the Proto-Basque consonant system are argued for in this Chapter, each with a wide range of implications for reconstruction and external comparison. First, evidence is presented that Proto-Basque had a proto-phoneme *m. Second, evidence is presented that Proto-Basque had a proto-phoneme *ph. Third, it is shown that the full series of voiceless stops is best analyzed as voiceless aspirated *ph, *th, *kh. Arguments for an aspirated series include distribution of aspiration in *h-ful dialects, the sound change of initial-debuccalization, for which a great deal of new evidence is put forward, and a range of constraints on the distribution of *h and voiceless stops in earlier stages of the language. All previous reconstructions of Proto-Basque assume a contrast between two sibilants, *s an apical, and *z a laminal. The final proposal in this chapter is that there was only a single sibilant *s in Proto-Basque. All inherited instances of *z are derived from *s in *sC and *Cs consonant clusters.

Chapter 4 Proto-Basque Phonotactics

A large number of proposals have been put forward concerning the structure of Proto-Basque roots and syllables. However, previous research is lacking in specific heuristics used to establish these structures. In the first part of this chapter I offer a set of heuristics for identifying roots in Proto-Basque. These include the syntagmatic strategies of past researchers, as well as new paradigmatic features, including three Proto-Basque prefixes (nominalizer, verbalizer and collective nominalizer) and a nominalizing suffix *-s. With these heuristics in hand, mono- and di-syllabic roots of different shapes are discovered, contesting the constrained CVC root-theory of Lakarra. Proto-Basque syllable structure must be revised to take into account evidence for initial *sT clusters, where T is *ph, *th, or *kh. The proposed syllable template is *(s)(C)V(R)(s), where C is any consonant except *r, and R is *r, *l, or *n. The disyllabic *h-medial stems introduced in Chapter 2 are revisited, as their shape changes from disyllabic to monosyllabic when affixed.

Chapter 5 Proto-Basque Stress and accent

Modern Basque dialects show a great deal of diversity in accentual or stress systems. In this chapter an overview of these systems is presented, with special focus on accent morphemes, and clues to the reconstruction of the Proto-Basque stress system. Earlier reconstructions of Proto-Basque accent are reviewed, and the extensive work of Hualde on this topic is summarized. Based on previous descriptions, a quantity-sensitive stress system is proposed for Proto-Basque where heavy syllables attract stress, so that CVCVC stems will have final stress, while CVCCV and CVCCV stems will show initial stress. With the stress system in place, a number of sound changes can be shown to be sensitive to prosodic structure, including *h-loss in initial unstressed syllables, *rh > rr before unstressed vowels, and vowel reduction and loss in compounds. The chapter concludes with a summary of processes leading to more and more iambic structures in the language, from morphological prefixation of CV- syllables, to CVC > CV reduction in reduplicated monosyllables.
Chapter 6  Advances in Proto-Basque Reconstruction

The revised Proto-Basque sound system presented in the preceding chapters uses methods of dialect comparison and internal reconstruction to arrive at new hypotheses concerning the segmental and prosodic structure of the language as spoken before the Common Era. The major differences between this reconstruction and earlier reconstructions of Michelena, Lakarra, and Trask are evaluated and discussed in this chapter including: the introduction of *ph into the consonant inventory; the analysis of *p, *t, *k as aspirated stops; arguments for a lone rhotic *r; arguments for *m as a proto-phoneme; and, in tandem, the reconstruction of only a single sibilant *s for Proto-Basque, and the existence of root-initial consonant clusters *sph, *sth, and *skh. Both the single sibilant hypothesis and the cluster hypothesis make Proto-Basque qualitatively different from the modern language, and result, arguably in a deeper reconstruction, where bigger word families are recognized, and many internal relationships between words are established.

Part II Comparison of Proto-Basque and Proto-Indo-European

Chapter 7 Results of the comparative method

The new reconstruction of Proto-Basque offered in Part I results in Proto-Basque roots, stems and words that bear a striking resemblance to Proto-Indo-European reconstructions. Application of the comparative method yields regular sound correspondences between Proto-Basque and Proto-Indo-European vowels and consonants as detailed in this chapter, and supported by lexical comparisons in the Appendix. Some of the more striking correspondence are: correspondences between PIE laryngeals and Proto-Basque *h; correspondences between PIE root-final palatalized velars and Proto-Basque *Ki sequences; correspondences between PIE root-final labialized velars and Proto-Basque *Ku sequences; and correspondences between PIE breathy voiced consonants and Proto-Basque *DVh sequences. It is argued that regular sound correspondences between Proto-Basque and Proto-Indo-European in proposed cognates, including basic vocabulary and grammatical morphemes, are not accidental, and are not due to borrowing. These correspondences may therefore be taken as evidence of common descent. Conservative phonological and morphological features of Proto-Basque in relation to Proto-Indo-European suggest that Proto-Basque did not descend from Proto-Indo-European. Instead, Proto-Basque and Proto-Indo-European should be seen as sister languages, or daughters of sister languages, descending from the same mother tongue.

Chapter 8  Statistical Evidence for Relatedness

The field of linguistics has no standard way of proving that two languages are related. Nevertheless, several approaches have been suggested for evaluating whether the similarities or correspondences offered in support of a relationship between two languages are characteristics that are highly unlikely to have arisen by chance.
The central purpose of this chapter is to explore any statistical method that might provide confirmation or disconfirmation that the lexical similarities, grammatical similarities and sound correspondences observed between Proto-Basque, as reconstructed here, and Proto-Indo-European as standardly reconstructed, are not due to chance. As a consequence, two distinct methods are considered. In the first part of the discussion, results of applying Nichols’ “individual identifying threshold” to grammatical and lexical data from the two proto-languages, is put forward. Lower numerals, pronouns, a derivational paradigm, a striking homophone correspondence set, in addition to several individual-identifying lexemes are offered as evidence. In the second part, Kessler’s (2001) “Monte Carlo” method is discussed. For reasons specific to the Basque data, some revisions of this method are necessary. A method based on language-specific segment inventories and phonotactics may offer more reliable results. This technique has been applied successfully to Proto-Indo-European/Proto-Basque Swadesh lists as summarized in 8.2.

Chapter 9  Proto-Basque and Proto-Indo-European Historical Phonology

Proto-Indo-European reconstruction is informed by the study of more than eighty distinct languages, living and extinct, each with their own individual sound patterns and phonological evolution. In this chapter, directly inherited Proto-Indo-European sound patterns as well as notable and common sound changes within the Indo-European family are compared with sound patterns and sound changes in Proto-Basque as reconstructed in Part I. This typological comparison is not meant to prove genetic relatedness, but does lend some plausibility to the patterns and developments hypothesized for Euskarian on the basis of internal reconstruction, and for the suggestion of an ancient relationship between the two language families which pre-dates the break-up of Indo-European somewhere between Eastern Europe and the Aral Sea around 5000 B.C. Special attention in this chapter is given to sound patterns shared by Proto-Basque and Common Anatolian, as well as Euskarian sound changes with Indo-European parallels, including Grassmann's Law, and the split of *s as a result of *s-laminalization in clusters..

Chapter 10  Potential Implications for Indo-European Linguistics

If the hypothesis that Proto-Indo-European and Proto-Basque are related receives further confirmation, a range of long-standing questions within Indo-European historical linguistics may be illuminated by taking Proto-Basque reconstructions into account. For example, if it turns out that these linguistic groups are related, the correspondence between PIE *w and PB *b, and PIE *m and PB *b/_VN would strengthen the hypothesis that pre-Proto-Indo-European had a voiced bilabial stop *b, but that by Proto-Indo-European times, *b had either assimilated to *m before a following nasal, or lenited to *w. A few deeper questions from the distinct domains of historical phonology, morphology, and the question of the Proto-Indo-European homeland are addressed.
briefly in this chapter. The first issue considered is whether Proto-Basque can shed new light on the problematic *Dʰ or breathy aspirated series in Proto-Indo-European. Central to this discussion is the correspondence between single breathy voiced consonants in PIE correspond and *DVh sequences in Proto-Basque. The second topic considered is that of Proto-Indo-European root-extensions. A sound-meaning correspondence is found for one potential PIE root-extension and the PB particle *behe 'below'. Finally, I offer some remarks on implications of the linguistic findings for the pre-historic population movements and the location of the Proto-Indo-European homeland.

APPENDIX  Proto-Basque reconstructions with Proto-Indo-European comparisons

The Appendix to this volume contains over 100 pages of detailed etymologies for Proto-Basque roots, stems and words, most with direct Proto-Indo-European comparisons. These reconstructions constitute the central basis of the Proto-Indo-European-Euskarian hypothesis. The Appendix begins with a short guide for the reader, followed by a list of all sound correspondences for the two languages, and a table illustrating these correspondences with Proto-Basque reconstructions, that can then be looked up in the Appendix. This inventory of Proto-Basque reconstructions and external comparisons is the most detailed of its kind, and contains many gems, from a new etymology for harpoon (< Proto-Basque *har-poin 'lit. 'grabbing-foot') to a claimed origin for the word orka (killer whale) in Basque, and a new source for Greek Pegasus, the winged horse.

Anyone with an interest in Indo-European etymologies and historical phonology will be fascinated by this collection of linguistic and real-world knowledge. More importantly, the Appendix provides exactly the kind of detailed Proto-Basque reconstructions and comparison sets that will allow readers to seriously evaluate the author's hypotheses.