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James Clackson

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Indo-European Linguistics

The Indo-European language family comprises several hundred languages and dialects, including most of those spoken in Europe, and south, south-west and central Asia. Spoken by an estimated 3 billion people, it has the largest number of native speakers in the world today. This textbook provides an accessible introduction to the study of the Indo-European proto-language. It clearly sets out the methods for relating the languages to one another, presents an engaging discussion of the current debates and controversies concerning their classification, and offers sample problems and suggestions for how to solve them. Complete with a comprehensive glossary, almost 100 tables in which language data and examples are clearly laid out, suggestions for further reading, discussion points and a range of exercises, this text will be an essential toolkit for all those studying historical linguistics, language typology and the Indo-European proto-language for the first time.

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JAMES CLACKSON
University of Cambridge



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Preface

Do we need another introduction to Indo-European linguistics? Since 1995 four have been published in English (Beekes 1995, Szemerényi 1996, Meier-Brügger 2003, Fortson 2004) and the ground seems to be pretty well covered. This book, however, aims to be an introduction of a different sort. Whereas the works mentioned give up-to-date and (usually) reliable information on the current thinking on what is known in Indo-European studies, here the aim is to present rather areas where there currently is, or ought to be, debate and uncertainty. Whereas previous introductions have aimed for the status of handbooks, reliable guides to the terrain presented in detail, this one aspires more to the status of a toolkit, offering up sample problems and suggesting ways of solving them. The reader who wants to know the details of how labio-velar consonants developed in Indo-European languages or the basis for the reconstruction of the locative plural case ending will not find them here; instead they will be able to review in detail arguments about the categories of the Indo-European verb or the syntax of relative clauses. The result is that this book has shorter chapters on areas such as phonology, where there is now more general agreement in the field, and correspondingly longer sections on areas which are passed by more summarily in other introductions. Memory athletes may be disappointed by the reduction in data, but I hope that others will welcome the increase in argumentation.

This book contains a number of exercises and discussion questions within and at the end of each chapter, designed to help readers get to grips with some of the issues in Indo-European linguistics and prompt further discussion. Answers to some of the exercises, hints and tips for others can be found at www.classics.cam.ac.uk/clacksonindoeuropean.

This book originates in the suggestion made some years ago by Geoff Horrocks, Professor of Comparative Philology at the University of Cambridge, to the two young (then) lecturers in his department that they should write a book which concentrated on explaining some of the issues of Indo-European linguistics. Torsten Meißner and I embarked together on the project with enthusiasm, and the framework of the book, and an early draft of Chapter 3 and parts of Chapters 1 and 2 were originally written in collaboration. Other duties and commitments delayed the completion of the work, however, and after a lapse of a few years I took up the project again on my own, partly through freedom allowed me by the generous award of a Philip Leverhulme Prize. Throughout the whole writing process Torsten has been an invaluable colleague and friend, he has commented

on drafts of the entire work at various stages and I have learnt from him more than it is possible to express about all aspects of Indo-European. Without his input, this book would be half of what it is now. He is of course, like all the others mentioned here, exculpated of any responsibility for my own errors or misjudgements.

I have also benefited greatly from the help of many other colleagues and students. Parts of the work in draft were read by Andreas Bartholomä, Dr Michael Clarke, Dr Coulter George, Dr Antonia Ruppell and Dr Sheila Watts. I owe particular gratitude to Alex Mullen, who worked as research assistant and as an exacting copy-editor over one summer and saved me from innumerable errors and anacolutha. Professor Peter Matthews, one of the series editors for the CUP Textbooks in Linguistics, read and commented on the work in draft and Andrew Winnard, the CUP linguistics editor, was always ready to offer help and advice. Chris Jackson acted as an assiduous and attentive copy-editor for CUP and plugged many gaps in my knowledge. Sarah Clackson gave love and support in the initial stages of writing. Véronique Mottier enabled me to continue and complete the manuscript.

Finally, my first teacher in Indo-European linguistics was the late and much missed Bob Coleman, sometime Professor of Comparative Philology at the University of Cambridge. This book is dedicated to his memory.

Transliteration conventions

Words and texts cited in this book generally follow established conventions of transliteration or citation and are not given in IPA transcription. The following notes are intended to guide the reader to the pronunciation of forms cited in this book. Since in many cases the languages are no longer spoken, there is often uncertainty about the precise realisation of certain sounds, and the pronunciations given here can only at best be approximate. It should be noted that we have not attempted to give comprehensive accounts of the phonologies of the languages concerned, but merely to aid readers to understand how a particular sign is used. In general we have avoided giving details of signs which are not used in this book. Where no information is given on the pronunciation of a sign, the reader can assume that it has a value approximately equivalent to its IPA equivalent. In all cases we have tried to follow the standard orthography used in the scholarly literature, except in the case of Greek, for which we have not used the Greek alphabet, but a transliteration which should make it accessible to all and enable readers who know Greek to recognise the original words.

Albanian

Albanian is written in the Latin alphabet.

c ç q gj x xh represent affricates or palatals: *c* = [ts] *ç* = [tʃ] *q* = [c] *gj* = [ɟ] *x* = [dʒ] *xh* = [dʒ]

dh th sh zh represent fricatives: *dh* = [ð], *th* = [θ] *sh* = [ʃ] *zh* = [ʒ]

ë is the central unrounded mid vowel [ə]

Armenian

Armenian is written in its own alphabet. The transliteration here follows that used in most modern scholarly accounts of the language, for example Schmitt (1981).

c j č ĵ represent affricates: *c* = [ts] *j* = [dʒ] *č* = [tʃ] *ĵ* = [dʒ]

š ž represent postalveolar sibilants: *š* = [ʃ] *ž* = [ʒ]
p' t' c' č' k' represent aspirates: *p'* = [p^h] etc.
ɫ represents a velarised lateral [ɫ]
ṛ represents a trilled [r], whereas *r* represents the approximant [ɹ]
y represents the palatal approximant [j]
ê represents a close-mid unrounded front vowel, *e* an open-mid unrounded front vowel.

Avestan

Forms cited are transliterated from the Avestan alphabet, following the practice of Hoffmann and Forssman (1996: 41).
Vowels written with a macron, such as *ā*, are conventionally pronounced long.

a represents a nasalised vowel.
ɑ represents a vowel in between [a] and [o], probably the unrounded low back vowel [ɑ].
c j represent affricates: *c* = [tʃ] *j* = [dʒ]
š ž represent post-alveolar sibilants: *š* = [ʃ] *ž* = [ʒ]
ṇ represents an unreleased nasal.
y represents the palatal approximant [j] in word initial position; the same sound is generally represented by *ii* within a word.
ṽ represents the labio-velar approximant [w] in word-initial position; the same sound is generally represented by *uu* within a word.

Palatalised consonants are denoted with a superscript acute accent, for example *ñ* represents a palatalised *n*.

Labialised consonants are written with following superscript *ṽ*, for example *x^ṽ* represents a labialised velar fricative.

Etruscan

Etruscan is written in an alphabet adapted from the Greek alphabet. The transliteration follows standard scholarly practice.

c represents an unvoiced velar plosive.
z probably represents an affricate [ts]
θ represents an unvoiced dental consonant, distinguished in some way from the unvoiced plosive *t*.
χ represents an unvoiced velar consonant, distinguished in some way from the unvoiced plosive *c*.

Gothic

The Gothic alphabet is an adaptation of the Greek alphabet, with reuse of some letters to correspond to sounds present in Gothic but not in Greek. The transcription here follows the standard scholarly conventions, as given, for example, in Rauch (2003: 6).

There is dispute about what sounds the digraphs *ai au* represent. Etymologically, and in transcriptions of foreign words into Gothic, these digraphs correspond both to short and long vowels and diphthongs; *ai* thus appears to represent all of [ɛ], [ɛ:] and [ai] and *au* appears to represent all of [ɔ], [ɔ:] and [au]. We have not used here the convention of using the notation *aí* for [ɛ] and *ái* for [ai], since this corresponds to no difference in the actual written texts.

Long vowels are not marked separately to short vowels except in the case of a long *i*, which is written with a digraph *ei*. The vowels *e* and *o* are only used to represent the long close-mid front and back vowels [e:] and [o:], for which there are no short counterparts.

- g* written before another velar consonant represents the velar nasal.
- q* represents a voiceless glottal stop with simultaneous lip-rounding [kʷ]
- hw* represents the glottal fricative with simultaneous lip-rounding [hʷ]
- þ* represents the voiceless dental fricative [θ]

Greek

Mycenaean Greek is originally written in a syllabic script. In the transcription, syllabic signs are identified through writing hyphens between them (= is used to indicate a syllabic boundary which is also a clitic boundary). The syllabic script does not represent voiced stops other than [d], or aspirated stops, and *r* represents both [r] and [l]. The syllabary only has signs for open syllables, and frequently sounds which occur in the coda of syllables are omitted in the script.

q represents a voiceless stop, a voiced stop and an aspirated stop which have various outcomes in later Greek, and are usually understood to be [kʷ], [gʷ] and [kʷʰ].

Alphabetic Greek is written in the Greek alphabet, which has many different local variants. Forms cited are generally taken from the Attic dialect. The transliteration used here transliterates Greek letters by single letters, except in the cases of the so-called double consonants, where *zd* represents Greek ζ, *ps* represents Greek ψ and *ks* represents Greek ξ.

ph th kh represent aspirated consonants, so that *ph* = [pʰ] etc.
Vowels written with a macron, such as *ā*, are long.

ei and *ou* in Attic Greek represent front and back long close-mid vowels, but in other dialects and earlier Greek these are front and back rising diphthongs.
u and *ū* in Attic Greek represent close front rounded vowels, but in other dialects and in earlier Greek these are close back rounded vowels.

Three accent marks are used. The acute is reckoned to indicate a rising pitch on the vowel, the circumflex a rise and fall in pitch on a long vowel or diphthong, and the grave is a modification of the acute accent when it stands before another accented word.

Hittite

Hittite is written in a form of the cuneiform syllabic script employed also for the Semitic language Akkadian. As well as using signs to represent syllables, the script also employs various conventional ideograms and classificatory signs, and sometimes scribes use Akkadian words in place of Hittite ones. We have followed the conventional means of transcribing these, which sometimes gives the text a confusing appearance, with capital and superscript letters alongside lower-case. For our purposes it may suffice to state here that only the text in lower-case reproduces Hittite words and endings. The reader who wishes to know more is advised to consult Friedrich (1960: 21–5).

In our transcription of Hittite we have followed current scholarly practice in using a broad transcription which reproduces the likely shape of the Hittite word. We have avoided using diacritics in the transcription as far as possible (thus we write *s* and *h*, not *š* and *ḫ*, in line with current practice).

ku before a following vowel probably indicates a labialised velar plosive [kʷ]
z probably represents an affricate [ts]

Vowels written with a macron, such as *ā*, represent the combination of two syllabic signs, and are usually reckoned to have been long vowels.

= is used to indicate a clitic boundary.

Latin

i represents both the vowel [i] and the consonant [j].
u represents both the vowel [u] and the consonant [w]. By convention when in upper case this sign is written *V*.
qu represents a combination of [k] and [w].

Vowels written with a macron, such as *ā*, are pronounced long.

Lithuanian

Lithuanian is written in the Latin alphabet, with some extra characters.

- č represents an affricate, [tʃ]
- š ž represent post-alveolar sibilants: š = [ʃ] ž = [ʒ]
- ė represents a long close-mid front vowel; e represents an open-mid front vowel.
- y represents a long unrounded high front vowel.
- ą ę į ū represent vowels which were originally nasalised, but which have now lost their nasalisation and are pronounced long.

Accented short vowels are marked with a grave accent. On accented long vowels or diphthongs (which include combinations of vowel and *l, m, n, r*) two signs are used to represent different pitch contours: the acute accent signifies a falling pitch, the circumflex a rising pitch.

Luwian

Luwian is written either in the cuneiform syllabary employed for Hittite (see above) or in a hieroglyphic syllabic script. We here follow the transcription of the hieroglyphic script as employed in Hawkins (2000 and 2003).

Lycian

Lycian is written in its own alphabet, adapted from the Greek. The transcription of the Lycian alphabet here follows that used in Melchert (2004).

- ã and ĕ are nasalised vowels.
- ṁ and ṅ may represent unreleased nasals.
- q represents some sort of voiceless velar consonant.
- x represents some sort of voiceless velar consonant; it is transcribed as χ in earlier works.
- z can represent the affricate [ts]

Old Church Slavonic

Old Church Slavonic is written in the Cyrillic and Glagolitic alphabets. There are many competing systems of transliteration of the Cyrillic alphabet; the one we use here follows Comrie and Corbett (1993), except in the use of the signs ĭ and ŭ.

- c č represent affricates: c = [ts] č = [tʃ]

š ž represent post-alveolar sibilants: *š* = [ʃ] *ž* = [ʒ]
ě represents an open-mid unrounded front vowel (*e* is a close-mid unrounded front vowel).
y represents a close unrounded back vowel.
ĩ represents a mid central unrounded vowel.
ũ represents a mid central rounded vowel.
ɛ̃ and *õ* are nasalised vowels.

Old English

Old English is written in the Latin alphabet (see above) with additional letters.
þ and *ð* are used to represent voiceless and voiced interdental fricatives [θ] and [ð].
æ represents an open unrounded front vowel, *a* an open unrounded back vowel.
y and *æ* represent rounded close and mid front vowels.

Old High German

Old High German is written in the Latin alphabet. Long vowels are denoted with a macron.
ch represents the voiceless velar fricative [x]

Old Irish

Old Irish is written in the Latin alphabet (see above) with a number of orthographic innovations.
Long vowels are indicated by an acute accent, for example *á*.
Palatalisation of syllable-final consonants is indicated by writing *i* before the consonant.
p t c represent voiceless stops word-initially; elsewhere they stand for voiced stops.
pp tt cc represent voiceless stops word-medially or word-finally.
b d g represent voiced stops word-initially; elsewhere they stand for voiced fricatives [β] [ð] [ɣ]
ph th ch represent voiceless fricatives, [f] [θ] [x] respectively.
= is used to indicate a clitic boundary.

Old Norse

The Old Norse cited in this book is taken from texts originally written in a form of the Latin alphabet, with added letters, diacritics and digraphs. Long vowels are denoted with the acute accent: for example, *á* and *é* are the lengthened counterparts to *a* and *e*.

þ represents the voiceless dental fricative [θ]

Old Persian

Old Persian is written in a syllabic script. The transcription used here follows Brandenstein and Mayrhofer (1964: 17–24). Vowels written with a macron, such as *ā*, represent the combination of two syllabic signs and are pronounced long.

y represents the palatal approximant [j]
= is used to indicate a clitic boundary.

Oscan

Oscan is written both in the Latin alphabet and a native alphabet. We have not followed the standard practice of differentiating between the two alphabets through the use of bold script, since all the forms in this work are originally written in the native script.

Any doubled vowel, such as *aa* and *ii*, represents a long vowel.

Palaic

The very small corpus of the Anatolian language Palaic is written in the same cuneiform script as Hittite.

Russian

Russian is written in the same Cyrillic script as is used for Old Church Slavonic (with the abandonment of a few signs). The transcription here used is the same as for Old Church Slavonic, except for the use of the soft sign '.

c *č* represent affricates: *c* = [ts] *č* = [tʃ]
š *ž* represent post-alveolar sibilants: *š* = [ʃ] *ž* = [ʒ]

y represents a close unrounded back vowel.
' written after a consonant denotes that the consonant is palatalised.

Sanskrit

Sanskrit forms are generally cited from the earliest texts, the Vedic hymns and associated texts, the language of which is sometimes called Vedic. The transliteration of the devanagari script adopted here is the one used in modern scholarly treatments of the language, (for example, Mayrhofer 1986–2001).

ph th ṭh ch kh represent aspirated consonants, so that *ph* = [p^h] etc.
bh dh ḍh jh gh represent consonants traditionally described as voiced and aspirated.
c ch j jh represent palatal stops, so that *c* = [c] *j* = [ɟ]
ṭ ṭh ḍ ḍh ṣ ṇ represent retroflex consonants, so that *ḍ* = [ɖ] *ṇ* = [ɳ] etc.
ś represents the palatal fricative [ç]
h represents the voiced glottal fricative [ɦ]
ñ represents the palatal nasal [ɲ]
y represents the palatal approximant [j]
ṛ represents a syllabic *r* [ɾ]
Vowels written with a macron, such as *ā*, are pronounced long.
The acute accent indicates a rise in pitch on the syllable.

Serbian

Serbian is written in the Cyrillic alphabet, and the transcription used here is the same as that for Russian.

Tocharian

Tocharian uses a version of the same script as Sanskrit (see above). It also has an additional vowel sign transcribed *ä* which is taken to represent a mid central unrounded vowel [ə]. In Tocharian *ts* represents an affricate [ts].

Umbrian

Umbrian is written both in the Latin alphabet and a native alphabet. We have not followed the standard practice of differentiating between the two alphabets through the use of bold script, since all the forms cited in this work are originally written in the Latin alphabet, except for one, *utur*, written in the native script. In the word *utur*, *t* may represent a voiced dental stop, since the Umbrian alphabet has no separate sign for this sound. For the other forms, see the notes for the Latin alphabet given above.

Welsh

Welsh is written in the Latin alphabet, and the forms cited here are in the modern orthography.

- ch th* represent the unvoiced fricatives [x] and [θ] respectively.
- dd* represents the voiced dental fricative [ð]
- f* represents the voiced labio-dental fricative [v], *ff* its unvoiced counterpart [f].
- u* represents the close unrounded central vowel [ɨ].
- w* represents either the close rounded back vowel [u] or the consonant [w].
- y* represents an unrounded central vowel, either [ə] or [i].