



# The Method Works

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Studies on Language Change in Honor  
of Don Ringe

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*Edited by*  
Joseph F. Eska · Olav Hackstein ·  
Ronald I. Kim · Jean-François Mondon

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# Foreword

Over the past several decades, Indo-Europeanists have felt increasingly compelled to justify their ‘old-fashioned’ line of work to colleagues in theoretical, computational, and other ‘modern’ branches of linguistics. Unfortunately, as more than one scholar has bemoaned, it is a daunting task for any one person to master the methods of Indo-European historical and comparative linguistics along with the requisite philologies, while also keeping up with contemporary phonological, syntactic, and semantic theory. It is, therefore, hardly surprising that most researchers have shied away from this dilemma, preferring either to concentrate on traditional problems and methods or to abandon their focus on ancient and medieval languages for more general issues of language acquisition and change.

Our honorand, by contrast, has confronted this challenge from the very beginning of his career and, thereby, carved out a name as one of very few Indo-Europeanists in the late twentieth and early twenty-first centuries to make an impact on multiple subfields of linguistics. After receiving training in classical languages and Indo-European linguistics from some of the foremost names in the field such as Anna Morpurgo Davies at the University of Oxford and Warren Cowgill at Yale University, Don taught classics at Bard College for two years; and then, in 1985 he joined the faculty of the Department of Linguistics at the University of

Pennsylvania, where he has remained ever since. He quickly made a name for himself with publications on Ancient Greek dialect grammar, the topic of his dissertation, as well as pioneering studies of Tocharian historical phonology and morphology, culminating in his 1996 monograph on the relative chronology of sound changes from proto-Indo-European to proto-Tocharian. At the same time, Don did not hesitate to respond to the overblown claims of long-range comparison and linguistic macro-families that were then being hyped in the popular press, always taking care to explain the principles and mathematics behind the Comparative Method and the demonstration of genetic relationships among languages.

Don's career in the twenty-first century has been marked, above all, by two trends: his enormous contributions to English and Germanic historical linguistics; and his increasingly fruitful collaboration with computer scientists in developing models to test phylogenetic hypotheses of the relationships among the Indo-European languages. It is no exaggeration to say that the appearance of *From proto-Indo-European to proto-Germanic* (2006; <sup>2</sup>2017) caused a sensation in Indo-European and Germanic linguistics, and the follow-up volume *The development of Old English* (2014, with Ann Taylor) is, without doubt, the most thorough historical grammar in existence of Old English and its many dialects up to ca. 900 CE. He also put in print many of his views on language change in general, particularly in *Historical linguistics. Toward a twenty-first century reintegration* (2013, with Joseph F. Eska), and composed a series of pedagogically oriented guides such as *An introduction to grammar for language learners* (2018) and *A historical morphology of English* (2021). At the same time, he continued to investigate problems of linguistic classification and phylogenetic relationships from a mathematical and computational perspective. His work with Tandy Warnow and her associates, which stretches back to the 1990s, yielded a stream of publications in leading journals that have captured global attention and, in no small part, furthered the current upsurge of research in computational phylogenetics.

Throughout his career, Don has been inspired by a fervent belief that historical linguistics, and, for that matter, linguistics as a whole, is a science guided by scientific methods and principles. His statements to that effect and responses to disbelieving audiences not infrequently come across as pointed, even polemic; but all who have witnessed him in the

lecture hall can testify to his genuine passion for the intellectual enterprise of studying language change. Whether the tried-and-true Comparative Method or the newly emerging computational methods for investigating language relationship, Don teaches that ‘the method works’ (on precisely controlled data, that is) and that the results are not only to be taken seriously even when they contradict expectations, but are themselves of intrinsic interest above and beyond what they can reveal about human prehistory. To a bored undergraduate’s in-class query ‘Why should we bother reconstructing dead languages?’, only Don could respond with enthusiastic gestures of both arms and the honest retort: ‘Because we can!’

We are proud to present this volume of original studies by 18 of Don’s colleagues and former students as a small token of our admiration for his numerous achievements. In addition to the contributors themselves, we would like to thank Michael Weiss and especially Amy Forsyth for invaluable assistance in preparing the bibliography of Don’s publications; Alisha George of the *Penn almanac* for furnishing the photo of Don; and Cathy Scott of Palgrave Macmillan for her help at every stage of the process, from proposal to publication. Please join us in congratulating Don on reaching this milestone in his life and career and wishing him many more productive years to come!

Blacksburg, VA, USA  
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 New Concord, OH, USA  
 March 2024

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# Bibliography of the Publications of Don Ringe<sup>1</sup>

## Monographs

1984

1. *The perfect tenses in Greek inscriptions*. Ph.D. dissertation, Yale University.

1992

2. *On calculating the factor of chance in language comparison*. Philadelphia: American Philosophical Society.

1996

3. *On the chronology of sound changes in Tocharian i, From proto-Indo-European to proto-Tocharian*. New Haven: American Oriental Society.

2006

4. *A linguistic history of English i, From proto-Indo-European to proto-Germanic*. Oxford: Oxford University Press.

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<sup>1</sup>N.B. that our honorand has published variously as Donald A. Ringe, Jr., D. A. Ringe, Jr., Don Ringe, Jr., and Don Ringe.

2013

5. *A new introduction to Old English*. MS, University of Pennsylvania.
6. Ringe, Don, & Joseph F. Eska. *Historical linguistics. Toward a twenty-first century reintegration*. Cambridge: Cambridge University Press.

2014

7. Ringe, Don, & Ann Taylor. *A linguistic history of English ii, The development of Old English*. Oxford: Oxford University Press.

2017

8. *A linguistic history of English i, From proto-Indo-European to proto-Germanic*<sup>2</sup>. Oxford: Oxford University Press.

2018

9. *An introduction to grammar for language learners*. Cambridge: Cambridge University Press.

2021

10. *A historical morphology of English*. Edinburgh: Edinburgh University Press.

## **Articles**

1977

11. The accent of adverbs in -θεν: a historical analysis. *Glotta* 55: 64–79.

1981

12. Tzotzil affect verbs. *Journal of Mayan linguistics* 3: 61–86.

1984

13. Ionic ὀνονημένα. *Glotta* 62: 45–56.
14. Germanic ‘ē₂’ and \*r. *Die Sprache* 30: 138–155.
15. Εἴληφα and the aspirated perfect. *Glotta* 62: 125–141.

1987

16. A closer look at Tocharian *e* and *o* and the Indo-European mediopassive. *Tocharian and Indo-European studies* 1: 98–138.
17. On the prehistory of Tocharian B accent. In *Studies in memory of Warren Cowgill (1929–1985). Papers from the Fourth East Coast Indo-European Conference, Cornell University, June 6–9, 1985*, ed. Calvert Watkins, 254–269. Berlin: De Gruyter.

1988

18. Laryngeal isoglosses in the western Indo-European languages. In *Die Laryngaltheorie und die Rekonstruktion des indogermanischen Laut- und Formensystems*, ed. Alfred Bammesberger, 415–441. Heidelberg: Winter.
19. Two notes on Greek epigraphical perfects. *Glotta* 66: 80–87.

1988/1990

20. Evidence for the position of Tocharian in the Indo-European family? *Die Sprache* 34: 59–123.

1989

21. Doric ἴσαντι. *Münchener Studien zur Sprachwissenschaft* 50: 123–157.
22. Tocharian B *ausu*, *auṣu*, *aultsu*. *Tocharian and Indo-European studies* 3: 35–50.
23. The imperative prefix /pə-/ in the Tocharian B dialects. *Tocharian and Indo-European studies* 3: 51–63.

1990

24. The Tocharian active *s*-preterite. A classical sigmatic aorist. *Münchener Studien zur Sprachwissenschaft* 51: 183–242.

1991

25. Laryngeals and Sievers' Law in Tocharian. *Münchener Studien zur Sprachwissenschaft* 52: 137–168.

1993

26. A reply to Professor Greenberg. *Proceedings of the American Philosophical Society* 137: 91–109.

1995

27. New directions for IE linguistics. Report on Mathematical Modelling Workshop. *Friends and alumni of UCLA Indo-European Studies newsletter* 5/1: 3–4.
28. Nominative-accusative syncretism and syntactic case. *University of Pennsylvania working papers in linguistics* 2/1: 45–81.
29. 'Nostratic' and the factor of chance. *Diachronica* 12: 55–74.
30. The 'Mana' languages and the three-language problem. *Oceanic linguistics* 34: 99–122.
31. Tocharians in Xinjiang. The linguistic evidence. *Journal of Indo-European studies* 23: 439–444.

1996

32. The mathematics of 'Amerind'. *Diachronica* 13: 135–154.
33. Warnow, Tandy, Don Ringe, & Ann Taylor. Reconstructing the evolutionary history of natural languages. In *Proceedings of the 7th Annual ACM-SIAM Symposium on Discrete Algorithms, SODA 1996*, 314–322. New York: Association for Computing Machinery / Philadelphia: Society for Industrial and Applied Mathematics.

1997

34. On the origin of 3pl. imperative -vтov. In *Festschrift for Eric P. Hamp*, ed. Douglas Q. Adams, ii 129–143. Washington, DC: Institute for the Study of Man.

1998

35. Probabilistic evidence for Indo-Uralic. In *Nostratic. Sifting the evidence*, ed. Joseph C. Salmons & Brian D. Joseph, 153–197. Amsterdam: John Benjamins.
36. Schwa-rounding and the chronology of sound changes in Tocharian. In *Mír curad. Studies in honor of Calvert Watkins*, ed. Jay Jasanoff, H. Craig Melchert, & Lisi Olivier, 611–618. Innsbruck: Institut für Sprachwissenschaft der Universität Innsbruck.
37. Some consequences of a new proposal for subgrouping the IE family. In *Proceedings of the Twenty-Fourth Annual Meeting of the Berkeley Linguistics Society, February 14–16, 1998. Special session: Indo-European subgrouping and internal relations*, ed. Benjamin K. Bergen, Madelaine C. Plauché, & Ashlee C. Bailey, 32–46. Berkeley: Berkeley Linguistics Society.
38. Ringe, Don, Tandy Warnow, Ann Taylor, Alexander Michailov, & Libby Levison. Computational cladistics and the position of Tocharian. In *The Bronze Age and early Iron Age peoples of eastern Central Asia*, ed. Victor Mair, 391–414. Washington, DC: Institute for the Study of Man.

1999

39. How hard is it to match CVC-roots? *Transactions of the Philological Society* 97: 213–244.
40. Language classification. Scientific and unscientific methods. In *The human inheritance. Genes, language, and evolution*, ed. Bryan Sykes, 45–73. Oxford: Oxford University Press.

2000

41. Some relevant facts about historical linguistics. In *America past, America present. Genes and languages in the Americas and beyond*, ed. Colin Renfrew, 139–162. Cambridge: The McDonald Institute for Archaeological Research.
42. Tocharian class II presents and subjunctives and the reconstruction of the proto-Indo-European verb. *Tocharian and Indo-European studies* 9: 121–141.
43. Kroch, Anthony, Ann Taylor, & Don Ringe. The Middle English verb-second constraint. A case study in language contact and language change. In *Textual parameters in older languages*, ed. Susan C. Herring, Peter van Reenen, & Lene Schøsler, 353–391. Amsterdam: John Benjamins.
44. Taylor, Ann, Tandy Warnow, & Don Ringe. Character-based reconstruction of a linguistic cladogram. In *Historical linguistics 1995. Selected papers from the 12th International Conference on Historical Linguistics, Manchester, August 1995 i, General issues and non-Germanic languages*, ed. John Charles Smith & Delia Bentley, 393–408. Amsterdam: John Benjamins.

2002

45. Syncopated present indicative forms in Old English. In *Verba et litterae. Explorations in Germanic languages and German literature*, ed. Alfred R. Wedel & Hans-Jörg Busch, 125–156. Newark, DE: Linguatext.
46. *Tocharian B* *sp* ‘and’. In *Indo-European perspectives*, ed. Mark R. V. Southern, 265–266. Washington, DC: Institute for the Study of Man.
47. Ringe, Don, Tandy Warnow, & Ann Taylor. Indo-European and computational cladistics. *Transactions of the Philological Society* 100: 59–129.

2003

48. An early rule of syncope in Tocharian. In *Language in time and space. A festschrift for Werner Winter on the occasion of his 80th birthday*, ed. Brigitte L. M. Bauer & Georges-Jean Pinault, 359–362. Berlin: De Gruyter.
49. Internal reconstruction. In *The Blackwell handbook of historical linguistics*, ed. Brian D. Joseph & Richard D. Janda, 244–261. Malden, MA: Blackwell.
50. Erdem, Esra, Vladimir Lifschitz, Luay Nakhleh, & Donald Ringe. Reconstructing the evolutionary history of Indo-European languages using answer set programming. In *Practical aspects of declarative languages. 5th international symposium, PADL 2003, New Orleans, LA, USA, January 2003*, ed. Veronica Dahl & Philip Wadler, 160–176. New York: Springer.
51. Historical linguistics. Methods. Computational methods. In *International encyclopedia of linguistics<sup>2</sup>*, ed. William J. Frawley, ii, 169–171. Oxford: Oxford University Press.

2004

52. Old English *mapelian*, *mæplan*, *mælan*. In *Indo-European perspectives. Studies in honour of Anna Morpurgo Davies*, ed. J. H. W. Penney, 417–435. Oxford: Oxford University Press.
53. Reconstructed ancient languages. In *The Cambridge encyclopedia of the world's ancient languages*, ed. Roger D. Woodard, 1112–1128. Cambridge: Cambridge University Press.
54. Some problematic consonant clusters in Tocharian. In *Per aspera ad asteriscos. Studia indogermanica in honorem Jens Elmegård Rasmussen sexagenarii idibus martiis anno MMIV*, ed. Adam Hyllested, Anders Richardt Jørgensen, Jenny Helena Larsson, & Thomas Olander, 469–473. Innsbruck: Institut für Sprachen und Literaturen der Universität Innsbruck.
55. Eska, Joseph F., & Don Ringe. Recent work in computational linguistic phylogeny. *Language* 80: 569–582.

2005

56. Brooks, Daniel R., Esra Erdem, James W. Minett, & Donald Ringe. Character-based cladistics and answer set programming. In *Practical aspects of declarative languages. 7th international symposium, PADL 2005, Long Beach, CA, USA, January 10–11, 2005*, ed. by Manuel Hermenegildo & Daniel Cabeza, 37–51. Berlin & Heidelberg: Springer.
57. Nakhleh, Luay, Don Ringe, & Tandy Warnow. Perfect phylogenetic networks. A new methodology for reconstructing the evolutionary history of natural languages. *Language* 81: 382–420.
58. Nakhleh, Luay, Tandy Warnow, Don Ringe, & Steven N. Evans. A comparison of phylogenetic reconstruction methods on an Indo-European dataset. *Transactions of the Philological Society* 103: 171–192.

2006

59. A sociolinguistically informed solution to an old historical problem. The Gothic genitive plural. *Transactions of the Philological Society* 104: 167–206.
60. Erdem, Esra, Vladimir Lifschitz, & Don Ringe. Temporal phylogenetic networks and logic programming. *Theory and practice of logic programming* 6: 539–558.
61. Evans, Steven N., Don Ringe, & Tandy Warnow. Inference of divergence times as a statistical inverse problem. In *Phylogenetic methods and the prehistory of languages*, ed. Peter Forster & Colin Renfrew, 119–129. Cambridge: The McDonald Institute for Archaeological Research.
62. Warnow, Tandy, Steven N. Evans, Don Ringe, & Luay Nakhleh. A stochastic model of language evolution that incorporates homoplasy and borrowing. In *Phylogenetic methods and the prehistory of languages*, ed. Peter Forster & Colin Renfrew, 75–90. Cambridge: The McDonald Institute for Archaeological Research.



2007

63. Old Latin *-minō* and ‘analogy’. In *Verba docenti. Studies in historical and Indo-European linguistics presented to Jay H. Jasanoff by students, colleagues, and friends*, ed. Alan J. Nussbaum, 301–306. Ann Arbor: Beech Stave Press.
64. Brooks, Daniel R., Esra Erdem, Selim T. Erdoğan, James W. Minett, & Don Ringe. Inferring phylogenetic trees using answer set programming. *Journal of automated reasoning* 39: 471–511.

2008

65. Ringe, Don, & Tandy Warnow. Linguistic history and computational cladistics. In *Origin and evolution of languages. Approaches, models, paradigms*, ed. Bernard Laks, 257–271. London: Equinox.

2010

66. ‘Thorn’ clusters and Indo-European subgrouping. In *Ex Anatolia lux. Anatolian and Indo-European studies in honor of H. Craig Melchert on the occasion of his sixty-fifth birthday*, ed. Ronald Kim, Norbert Oettinger, Elisabeth Rieken, & Michael Weiss, 330–338. Ann Arbor: Beech Stave Press.

2011

67. A pilot study for an investigation into Atkinson’s hypothesis. *Linguistic typology* 15: 223–231.

2012

68. An early ‘Ingvaemonic’ innovation. In *Multi nominis grammaticus. Studies in classical and Indo-European linguistics in honor of Alan J. Nussbaum on the occasion of his sixty-fifth birthday*, ed. Adam I. Cooper, Jeremy Rau, & Michael Weiss, 285–288. Ann Arbor: Beech Stave Press.
69. Cladistic principles and linguistic reality. The case of West Germanic. In *Laws and rules in Indo-European*, ed. Philomen Probert & Andreas Willi, 33–41. Oxford: Oxford University Press.

70. The *hi*-conjugation as a PIE subjunctive. In *Linguistic developments along the Silk Road. Archaism and innovation in Tocharian*, ed. Olav Hackstein & Ronald I. Kim, 121–140. Wien: Österreichische Akademie der Wissenschaften.

2013

71. The linguistic diversity of aboriginal Europe. In *Grammatica et verba / Glamor and verve. A festschrift for Hans Henrich Hock*, ed. Shu-Fen Chen & Benjamin Slade, 202–212. Ann Arbor: Beech Stave Press.
72. What is Old English? *NOWELE* 66: 127–140.
73. Barbançon, François, Steven N. Evans, Luay Nakhleh, Don Ringe, & Tandy Warnow. An experimental study comparing linguistic phylogenetic reconstruction methods. *Diachronica* 30: 143–170.

2015

74. Levelling and rule restructuring in Old English adjectives. *Indo-European linguistics* 3: 73–83.
75. Response to Kassian et al. ‘Proto-Indo-European-Uralic comparison from the probabilistic point of view.’ *Journal of Indo-European studies* 43: 348–356.
76. Anthony, David W., & Don Ringe. The Indo-European homeland from linguistic and archaeological perspectives. *Annual review of linguistics* 1: 199–219.

2016

77. Phonological rules and dialect geography in Ancient Greek. In *Sahasram ati srajas. Indo-Iranian and Indo-European studies in honor of Stephanie W. Jamison*, ed. Dieter Gunkel, Joshua T. Katz, Brent Vine, & Michael Weiss, 378–384. Ann Arbor: Beech Stave Press.
78. The nature of the South Greek dialect group. In *Tavet tat satyam. Studies in honor of Jared Klein on the occasion of his seventieth birthday*, ed. Andrew Miles Byrd, Jessica DeLisi, & Mark Wenthe, 278–283. Ann Arbor: Beech Stave Press.

2017

79. Indo-European dialectology. In *Handbook of comparative and historical Indo-European linguistics*, ed. Jared Klein, Brian Joseph, & Matthias Fritz, i 62–75. Berlin: De Gruyter Mouton.

2018

80. Indicative-subjunctive syncretism in West Germanic. In *Vina diem celebrent. Studies in linguistics and philology in honor of Brent Vine*, ed. Dieter Gunkel, Stephanie W. Jamison, Angelo O. Mercado, & Kazuhiko Yoshida, 390–396. Ann Arbor: Beech Stave Press.

2020

81. Legate, Julie Anne, Faruk Akkuş, Milena Šereikaitė, & Don Ringe. 2020. On passives of passives. *Language* 96: 771–818.

2022

82. Stative perfects. In शब्दानुगमः. *Indian linguistic studies in honor of George Cardona ii, Historical linguistics, Vedic, etc.*, ed. Peter M. Scharf, 85–98. Providence: The Sanskrit Library.
83. What we can (and can't) learn from computational cladistics. In *The Indo-European language family. A phylogenetic perspective*, ed. Thomas Olander, 52–62. Cambridge: Cambridge University Press.
84. Ringe, Don, & Charles Yang. 2022. The threshold of productivity and the 'irregularization' of verbs in Early Modern English. In *English historical linguistics. Change in structure and meaning. Papers from the XXth ICEHL*, ed. Bettelou Los, Claire Cowie, Patrick Honeybone, & Graeme Trousdale, 91–111. Amsterdam: John Benjamins.

Forthcoming

85. A new argument from old principles: Tocharian A *cmol* and its implications.

## Technical Report

1995

86. Warnow, Tandy, Don Ringe, & Ann Taylor. 1995. *Reconstructing the evolutionary history of natural languages*. IRCS Report 95-16. Philadelphia: Institute for Research in Cognitive Science, University of Pennsylvania.

## Reviews

1986

87. N. E. Collinge, *The laws of Indo-European*. Amsterdam: John Benjamins, 1985. *Diachronica* 3: 107–113.

1988

88. Alan J. Nussbaum, *Head and horn in Indo-European*. Berlin: De Gruyter, 1986. *Journal of the American Oriental Society* 108: 186–187.

1990

89. Douglas Q. Adams, *Tocharian historical phonology and morphology*. New Haven: American Oriental Society, 1988. *Language* 66: 400–408.
90. Sydney M. Lamb & E. Douglas Mitchell (eds), *Sprung from some common source. Investigations into the prehistory of languages*. Stanford: Stanford University Press, 1991. *Anthropological linguistics* 32: 376–380.

1993

91. Peter Schrijver, *The reflexes of the Proto-Indo-European laryngeals in Latin*. Amsterdam: Rodopi, 1991. *Diachronica* 10: 285–289.

2001

92. Helmut Rix et al., *Lexikon der indogermanischen Verben*. Wiesbaden: Reichert, 1998. *Diachronica* 18: 184–187.

2002

93. Joseph Greenberg, *Indo-European and its closest relatives. The Eurasiatic language family i, Grammar*. Stanford: Stanford University Press, 2000. *Journal of linguistics* 38: 415–420.
94. April McMahon, *Change, chance, and optimality*. Oxford: Oxford University Press, 2000. *General linguistics* 39: 156–159.

2015

95. *The Routledge handbook of historical linguistics*, ed. Claire Bower & Bethwyn Evans. London: Routledge, 2015. *Language* 91: 488–491.
96. *Classification and evolution in biology, linguistics, and the history of science*, ed. Heiner Fangerau, Hans Geisler, Thorsten Halling, & William Hartin. Stuttgart: Franz Steiner, 2013. *Historische Sprachforschung* 128: 316–320.

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## Notes on Contributors

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