Unraveling the problem of human brain evolution requires new perspectives informed by multiple lines of research. Important clues can be gleaned from studies of fossil hominin ancestors, neuroanatomy and genomes of the variety of primates alive today, as well as developmental and scaling principles that govern brain organization. The formidable challenge of understanding human brain evolution is to discover how natural selection has shaped the structure and function of our species’ nervous system, leading to distinctive behavioral abilities such as language and specialized social cognition. Linking diverse levels of biological analysis, from genes to behavior and fossils to neuroanatomy, is critical to overcoming this challenge. This publication provides a singular resource to explore cutting-edge research that investigates the interaction of evolutionary changes in genes, brains and behavior in the human lineage. These perspectives highlight opportunities to broaden our knowledge of human brain evolution with interdisciplinary research.

This special topic issue will be of interest to researchers and students in the fields of neuroscience, paleoanthropology, evolutionary biology, genomics, primatology, comparative psychology and developmental biology.
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Contents

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Selected contributions
• Coming of Age in the Geospatial Revolution: The Geographic Self Re-Defined: Downs, R.M. (University Park, Pa.)
• More than Just a Simple Twist of Fate: Serendipitous Relations in Developmental Science: Napolitano, C.M. (Zurich)
• Defining Tiger Parenting in Chinese Americans: Kim, S.Y. (Austin, Tex.)
• The Principle of Persistence, Leibniz’s Law, and the Computational Task of Object Re-Identification: Fields, C.A. (Santa Fe, N. Mex.)
• Microgenetic Learning Analysis: A Methodology for Studying Knowledge in Transition: Pamales, O. (Tel Aviv), diSessa, A.A. (Berkeley, Calif.)
• Learning by Observing and Pitching In with Family and Community Endeavors: An Orientation: Rogoff, B. (Santa Cruz, Calif.)
• An Analysis of the Conceptual Foundations of the Infant Preferential Looking Paradigm: Tafreshi, D.; Thompson, J.J.; Racine, T. (Burnaby, B.C.)
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