

Los límites de la ciencia suffers from some of the usual ailments of multiauthored volumes. Lack of coherence among the approaches and levels of analysis of the contributions and considerable variation in the attention devoted to national examples prevent a fuller development of the book's panoramic and comparative goals. Still, valuable editorial work, intended to add to the consistency and overall readability of the whole, must be acknowledged. A unified bibliography, a glossary, and a useful name index are provided. Cross-references among chapters opportunely appear throughout the text.

Santos Casado

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Hanna Engelmeier. *Der Mensch, der Affe: Anthropologie und Darwin-Rezeption in Deutschland, 1850–1900.* 373 pp., figs., bibl., index. Cologne: Böhlau Verlag, 2016. €45 (cloth).

Biologists agree that at least three major historical stages in the development of the theory of evolution can be distinguished. The first is classical Darwinism, Darwin's theory that emphasized the power of selection and accepted both hard and soft ("Lamarckian") inheritance. The second is neo-Darwinism, a notion coined by George John Romanes in 1895 to denote "the pure theory of natural selection to the exclusion of any supplementary theory" and later represented by Alfred Russel Wallace and especially August Weismann. The third is the synthetic theory of evolution, which originated in the early 1930s and was shaped by multiple authors from 1937 to 1950. In contrast to neo-Darwinism, the synthetic theory included modern genetics, systematics, and theories of speciation and macroevolution (based on paleontology, comparative morphology, and developmental biology).

Throughout these three stages, (paleo)anthropological theory of human evolution as a Darwinian science received little historical attention. The book under review, the result of a Ph.D. project supervised by Hartmut Böhme (Berlin), aims to fill this gap. It is devoted to the history of anthropology and evolutionary biology in nineteenth-century Germany. Its major objective is to examine the growth of German anthropology and the reception of Darwinian ideas between 1859 and 1900, focusing in particular on the origin of man from an ape-like ancestor. Thus, it covers the two initial periods in the development of Darwinism (classical Darwinism and neo-Darwinism). The author, Hanna Engelmeier, is less interested in the analysis of various mechanisms of evolution in the emerging field of anthropology, focusing instead on the philosophical, theoretical, and cultural background of biological anthropology and its reciprocal relationships with "philosophical anthropology." Her major concern seems to be the interrelationship between natural sciences, literary narrative, and iconography as a force shaping anthropological discussions in the evolutionary thought of the nineteenth century and situating the ape in a central place within the cultural landscape.

Engelmeier uses three types of sources: texts from so-called natural history and related areas like anatomy or physiology (Petrus Camper, Johann F. Blumenbach); literary sources discussing phylogenetic relationships between man and apes; and, finally, samples from the iconography of the subject (Carl Vogt, Ernst Haeckel, August Schleicher, Gabriel Max, Friedrich Nietzsche, etc.). The book is divided into five major parts: Sezieren, Reduzieren, Pathologisieren, Ästhetisieren, and Imitieren (anatomizing, reducing, pathologizing, aestheticizing, simulating), named after methods used by the scientists discussed in the book. Each part is made up of several chapters.

After providing a general overview of the time period in question in the first part, Engelmeier moves in the second part to the formation of biological anthropology in Germany, with Darwin and Vogt as central

figures. Engelmeier considers Vogt the most crucial person in the debates on the theory of descent at that time.

The next part uses the debates around microcephaly as a case study. Vogt introduced microcephaly as an example of an atavism proving, from his viewpoint, the earlier existence of an ape-man. The idea of an ape-man thus became widespread among German medical practitioners interested in anthropology. Two concluding parts are devoted to contributions from authors in fields such as zoology, linguistics, and philosophy on the “poetization of science” and cultural criticism of the time (history of the denunciation and appropriation of “monkeying”). Authors like Nietzsche or Max Nordau interpreted monkeying as a flaw in human character and included it in their analysis of cultural and anthropological phenomena. There is no classical summary (epilogue, conclusions) at the end of the book, and conclusions are spread throughout the text.

All in all, Engelmeier gives a readable account of the relationships between anthropology and primatology in light of the reception of Darwinian ideas in Germany during the last half of the nineteenth century from the perspective of cultural history. She does not delve too deeply into the specific anthropological issues of that time, and the argument sometimes appears superfluous.

The book demonstrates how cultural currents and academic interests intersect. Engelmeier’s hypothesis proves that interdisciplinary intersections are fluid, continually being revised and reconceived, and therefore opening new possibilities for reinterpreting already existing and newly created texts and images. We should keep in mind that this discussion can be elevated on the transnational level to fully reconstruct the appearance of new cultural identities. A comparative transnational study would be a fruitful way to continue that kind of research.

Uwe Hofffeld

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Francine F. Abeles; Mark E. Fuller (Editors). *Modern Logic, 1850–1950, East and West*. (Studies in Universal Logic.) xiii + 258 pp., figs. Basel: Springer, 2016. \$69.99 (paper).

Modern Logic, 1850–1950, East and West is a memorial volume for the respected historian of logic Irving H. Anellis (1946–2013), edited by two of his long-term collaborators, Francine F. Abeles and Mark E. Fuller. Anellis was a prolific writer on many topics, but he may be best remembered as the founding editor of the journal *Modern Logic*, which was distinguished by its unique emphasis on the recent history of logic. Sadly, the last issue of *Modern Logic* appeared in 2008, so the book also serves as its memorial volume—both editors were closely involved with the journal, as were many of the contributors. The first two chapters, (co)authored by Anellis, may be of most interest to readers of *Isis*. The first is a preface or prospectus for a projected work on the history and philosophy of logic that Anellis did not live to complete. It concentrates on historiographical questions, and especially whether the work of Gottlob Frege, specifically his *Begriffsschrift* of 1879, should be seen as revolutionary in how it relates to prior work: not only the traditional logic of the syllogism but also the earlier nineteenth-century innovations in algebraic logic initiated by George Boole and others. Anellis rightly opposes the simplistic relegation of algebraic logic to the status of imperfect anticipation of the later Fregean tradition. Nonetheless, this is a frustrating read, for two reasons: first, because we shall never have the opportunity to read the book that it describes; second, because despite its numerous references it lacks a bibliography—the editors note that no bibliography could be found in Anellis’s papers. Many of the sources may be identified by a quick online search—but that makes the failure to reconstruct a bibliography even more mysterious.