Brumberg-Chaumont Julie and Rosental Claude (eds) (2021) Logical Skills: Social-Historical Perspectives. Cham: Springer International Publishing. 172 pages. ISBN: 978-3-030-58445-0

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Julie Brumberg-Chaumont and Claude Rosental's edited collection Logical Skills: Social-Historical Perspectives (2021) reveals that it is logic, broadly conceived, that joins together the disparate fields of postcolonial studies and disability studies. For postcolonial STS scholars, the book is of interest insofar as it shows how logic has served, at different moments in history, to define certain peoples as "primitive." For scholars of disability studies, the book provides historical examples of the use of logic to cast specific social groups—including children, the intellectually disabled, and the insane—as less than human. The contributors variously define logic both formally (as inductive and inferential, or deductive and syllogistic, or pragmatic and action-oriented) and informally (as common sense, or rationality, or the capacity for abstract thought, or the avoidance of contradiction, or native intelligence). Dominique Poirel (chapter 7) relates that what would later become the dominant definition of logic—dialectical reasoning—was once a contested terrain.

The key message of the book is that the sociological study of the history of logic is a decolonizing move, one that reveals overlaps between colonization and the marginalization of the disabled. Again and again, the various contributors describe how logic was conceived of as "natural," by virtue of its inscription in the body, and yet restricted to the "civilized," the "learned," and the "sane." For example, Claude Blanckaert

(chapter 3) explains how early anthropologists used brain size and a narrative of perfectibility to claim that some races are superior to others. In contrast with the Cartesians of the Enlightenment, who believed in mind-body dualism, nineteenthcentury French anthropologists were positivists who believed that thought—which they called 'natural logic'—resided in the body. But whereas the "superior" races were perfectible, the supposedly "inferior" races had regressed. Similarly, Brumberg-Chaumont (chapter 6) describes the logicization of intellectual practice that coincided with the rise of the institution of the university. For thirteenth-century scholars, logic was at once an acquired disposition—a habitus—and the most prestigious of academic disciplines. The flip side of the valorization of logic is that it resulted in the devaluation of those who are deprived of logic, as in the case of *idiota*, the uneducated, or *moriones*, the cognitively disabled. At the bottom of the intellectual scale were pygmies.

Another recurring theme is the temporalization of logic, which was used to explain why certain groups of people fail to "progress." Christopher Goodey (chapter 9), for example, relates that the distinction made in developmental psychology between the normal and the cognitively impaired has its origins in the salvation theology of the seventeenth century. Rousseau's educational philosophy added a temporal dimension to this distinction, according to which children are

temporarily disabled, and the cognitively impaired permanently so. Similarly, Roberto Frega (chapter 5) describes the evolutionary approach to logic of the twentieth-century philosopher John Dewey, according to which "primitives" fear doubt and are thus in the infancy of logic. Frega takes pains to point out that Dewey distanced himself from Spencerian progressivism and that, for Dewey, primitive thinking persists in modern societies. However, Dewey's characterization of Western science as representing the pinnacle of human progress suggests that he was a Spencerian malgré soi. Moreover, Dewey explicitly built upon the evolutionary approach to logic of his mentor Charles Sanders Peirce, who was an advocate of slavery (Menand, 1993).

Banu Subramaniam et al. (2016) point out that research which avails itself of the shared insights of postcolonial STS and other STS subdisciplines is undertheorized, and they call for more research on how these fields intersect. By describing how logic is implicated in both colonization and the marginalization of the disabled, the various contributors to this volume heed this call. Scott L. Pratt (chapter 2), for example, argues that 'natural logic', as defined by the nineteenth-century anthropologist Lewis Henry Morgan, underpins the project of settler colonialism. Because natural logic provided an explanation for how cultures "progress," it became a normative framework with which cultures could be assessed, and it was used to justify cultural genocide. Pratt argues that Morgan's conception of natural logic, which strongly influenced structuralist anthropology, continues to stalk poststructuralism, including the new materialism of Karen Barad. Pratt concludes by proposing an alternative, decolonial logic. His decolonial logic brings to mind Helen Verran's (2001) account of the emergent, multiple worlds that are created by "doing" numbers according to an African logic.

Much STS scholarship is based on the blurring of the distinction, assumed to be foundational to Western culture, between human agency and the non-agency of nonhumans (Callon, 1986). In this vein, Irina Metzler (chapter 8) shows that the denial of agency to nonhumans has not always held true. In medieval natural philosophy and jurisprudence, certain categories of living

beings—including animals and the intellectually disabled—were considered to be lacking in rationality, as they lacked speech and thus also lacked agency. But whereas the intellectually disabled were exempt from criminal culpability, some animals were put on trial. According to the legal theory of the time, animals lacked agency. But in actual legal practice, some animals were treated as though they had agency.

Early STS scholars emphasized mathematics and the physical sciences, as these were considered to be the hardest cases in proving that science is socially determined. Logic is like mathematics in that it is abstract and assumed to be universally true; unlike mathematics, however, logic is not ontologically grounded in physical objects. By studying logic, then, the contributors to this volume take on an even harder case. Like the early STS scholar David Bloor (1991 [1976]), who proved that mathematics is socially determined by basing his analysis on empirical practice, the various contributors emphasize logic as praxis. Bloor is among the figures considered by Claude Rosental (chapter 4) in his account of the use of logic by twentieth-century social scientists to assess the rationality of the Azande people of north central Africa. Bloor, inspired by John Stuart Mill's notion of a society's common sense, argues that logic is but the institutional framework of reasoning. If the application of a rule—formal logic—threatens the stability of the institution, then the rule can be circumvented by informal logic.

Despite the many convergences between *Logical Skills* and topics of interest to STS scholars, the majority of the contributors do not explicitly cite contemporary STS research. In most cases, STS scholars who wish to draw upon the book must make the linkages themselves. In their introduction, however, the editors do an admirable job of pointing out the relevance of the book to fields that fall within the purview of STS, such as valuation studies.

The absence of STS theory from much historical scholarship is mirrored by the absence of history in contemporary STS. Although STS was originally conceived of as an imbrication of the history of science, the philosophy of science, and the sociology of science (Fuller, 2007), mainstream

STS has since moved away from the study of history. Nevertheless, history remains important within postcolonial STS. The *Postcolonial Science* and *Technology Studies Reader* (Harding, 2011), for example, has numerous contributions by historians; the most recent edition of *The Handbook of*

Science and Technology Studies (Felt et al., 2017) does not. Logical Skills shows that, to better understand the shared insights of postcolonial STS and STS itself, the sociological study of history is a fruitful approach.

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