

BOOK REVIEW/COMPTE RENDU

Diane M. Rodgers, *Debugging the Link between Social Theory and Social Insects*. Baton Rouge, LA: Louisiana State University Press, 2008, 240 pp. \$US 22.95 paper (978-0-8071-3369-9)

Diane M. Rodgers has assembled a diverse set of actors in *Debugging the Link between Social Theory and Social Insects*: ants, bees, biologists, sociologists, and entomologists. They are seamlessly threaded into a deconstruction of the metaphors and analogies used in the lively engagement between sociology and entomology in the nineteenth and early twentieth centuries. On the one hand, social insects, such as ants, bees, and wasps, were compared to human social organization. On the other hand, a much larger repository of comparison, from human society back to insects, provided explanations of insect sociality, carrying Western conceptions of race, gender, and class into the classification and documentation of the behaviour of social insects.

Rodgers carefully analyzes the interconnected lines of thought between sociologists and entomologists that, by her reckoning, co-constructed interchangeable visions of sociality and social organization between human and insect society. The book begins with an overview of entomological terms and of the basic hierarchical model of sociality for insects. Insect hierarchies are traditionally ranked from the most solitary insects to the most socially organized or eusocial, such as some bees and ants. The eusocial insects exhibit specialized behaviours such as a division of labour, including reproductive labour, and caring for their insect larvae. This sociality is the basis for the author's claim that concepts deployed by entomologists have been "co-constructed with social theory" to define aspects of sociality. It is around this point that her analysis unfolds.

Applying a critical science studies approach, Rodgers tunnels into the "process of legitimation" created through the development of a shared lexicon of sociality between entomology and sociology. Through discourse analysis, she reveals the underlying power relations within early descriptions of human and social insect social organization that turned on anthropomorphic accounts of insect behaviour. For example, ants and bees were invariably described as stealthy invader, reserve labourer, Queen, slave, soldier, farmer, and nurse, and were ascribed behaviours such as "effective policing" or "corrupt motives." The hierarchical social institutions and roles used to describe social insects created a "legitimat-

ing loop between social and natural systems [which] co-created class, race, and gender hierarchies.” The book’s middle chapters emphasize how dominant discourses of the colonial era, when so much early work in entomology and sociology became entwined, were reflected in the racialized terms ascribed to insect behaviour and roles, as, for instance, slave and slave-maker ants, alongside notions of caste and gender. Social insects were assigned roles and positions in insect society that mimicked human practices. The author suggests that as these “biased descriptions [of social structure] became part of the scientific discourse on nature,” they were naturalized, serving as universals permeating the explanations of complex human and insect behaviour and societies.

As the book proceeds from explaining insect sociality and its relevance to human sociality through the historical and interdisciplinary exchanges between entomologists, biologists, and sociologists, the ghosts of theory past are scattered across the pages. Rodgers documents in scholarly and archival sources the links between disciplines, involving Charles Darwin, Herbert Spencer, Peter Kropotkin, Henry Morton Wheeler, Franklin Giddings, Robert Park, and Radhakamal Mukerjee, with references among all to Durkheim, Weber, and Comte. A dizzying array of male, mostly white scientists and sociologists discussed and debated the origins of sociality.

One chapter is devoted to the few oppositional discourses or “alternative visions” of social insects based in feminism, cooperation, and postcolonialism. However, Rodgers fails to highlight that the oppositional discourses were not so much a redress of the dominant metaphors and analogies deployed in descriptions of insect and human sociality, as an extension of them to suit an alternative structure, purpose or behaviour. Thus when Charlotte Perkins Gilman championed the benefits of what she understood to be female-centred insect societies, she turned to the same universals of sociality as her colleagues. The social organization and highly efficient coordination of ants and bees were now described as socialist or communist; the industry of female worker insects stood as an example of how human government could become more attuned to female purposes and needs — a sort of compassionate governance modeled on the honey bee.

Rodgers’ book can be situated in literature that has recently explored the “insect boom,” in which insect behaviour has been used to model self-organizing human collectives, networks, and artificial intelligence and artificial life computational systems. In these more recent instances, sociologists have sought metaphorical inspiration from entomologists asserting that insect sociality, while exhibiting complex organizational features, are not necessarily strictly hierarchical, and that seemingly

complex behaviours emerge out of self-organization. In her final chapter, the author notes that these more recent findings disturb long held notions of insect sociality, but cautions that this renewed interdisciplinary correspondence between entomology and sociology might still be informed by “embedded terms and assumptions” that do not necessarily challenge race, class and gender hierarchies.

This observation might have been a place to discuss one of the central debates in science studies, which is present in this book but not explicitly confronted: the nature/culture divide. Although it explores the social construction of nature, the book often maintains rather than challenges the separation of nature and culture that many science studies scholars have sought to disrupt. The “legitimizing loop” co-constructed by entomologists and sociologists not only embedded social hierarchy, it also maintained the division between nature and culture. Insects exhibit social organization analogous to human society, but they were very clearly not on the side of culture as far as entomologists and sociologists were concerned. This division, I suggest, was crucial to the racialized constructions embedded in both human and insect sociality because it categorized indigenous, non-white peoples on the side of nature (uncivilized), not culture (civilized). Thus, the dialogue between entomologists and sociologists is not only an example of interdisciplinarity and the co-construction of a shared lexicon, it is yet another example of how two significant and influential scholarly disciplines worked to keep nature and culture separate. Later chapters seem to forget that the “legitimizing loop” privileges this nature/culture divide, ensuring that descriptions of nature remain idealized abstractions available for theory-building in the one direction (sociology) and for making nature understandable through human terms in the other (entomology).

Minor criticisms aside, this book serves as a model for critical science studies. It highlights naturalizing tendencies that might prevail in current research and theorizing on sociality in entomology and sociology, as well as in recent studies in communication and networks. I recommend it to students of science and sociology, as an example of early interdisciplinarity and for its critical methodology applied to such a fascinating topic.

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