Book Reviews/Comptes rendus

DIANE M. RODGERS, Debugging the Link between Social Theory and Social Insects. Baton Rouge, LA: Louisiana State University Press, 2008, 214 p.

"Queen, king, worker, soldier, slave, slave-maker, guard, nurse, scout, farmer, dairyman, thief." It is no surprise to hear that the language used by entomologists to describe so-called "social" insects is laden with anthropomorphism. What is surprising – and what Diane M. Rodgers attempts to capitalize on – is the degree to which sociology too has been "borrowing." According to Rodgers, sociologists have long been reading for analogies in the natural sciences, and she argues that some of these analogies have naturalized states of hierarchy in the human world. To undo this relationship – to "debug" social theory – Rodgers seeks to describe the co-construction of theories of hierarchical sociality that have been employed in both entomology and sociology, and to unveil the "legitimating loop between the natural and the social…that reinforces authority for both arenas" (20).

Rodgers expects her readers to have no background knowledge of entomology; she usefully sketches out the basics of entomology's prized category of "eusocial" insects. "Currently in the field of entomology a very basic definition of the characteristics needed for the highest level of insect sociality includes three traits: (1) division of labor, especially a reproductive division of labor with some sterile individuals; (2) caring for the young by the colony; and (3) overlapping of generations" (4). Those traits possessed by termites, ants and wasps render them the most social (read "civilized") in the entomologist's world. And it is here, in breaking down the construction of insect sociality, where Rodgers' account is strongest. She amply demonstrates the importance of context in the development of theories and descriptions about social insects, leaving no doubt about the degree to which these descriptions were drawn from human social organization, being clearly raced, gendered, and privileging an advanced division of labour that mirrored the social order. As an example, early 20th century Swiss entomologist Auguste Forel presented the "slave-maker" ant as "undoubtedly the most intelligent…of all known ants." While capable of work, she herself "delegates some of her domestic labours to creatures which she has not taken the trouble to rear, and thus sets herself free to roam about" (131). By the end of the book, readers will agree, "In deeming certain insects as 'social,' it may become difficult not to interpret the meaning of 'social' in human terms" (9).

But, as stated above, her text is not singularly directed at the field of science and technology studies nor directed solely to interested entomologists. Rodgers wants to demonstrate how key sociologists of the 19th and 20th century drew on analogies from the insect world. To this end, she brings into the fold an ambitious list of sociological theorists: Max Weber, Herbert Spencer, George Herbert Mead, Emile Durkheim, Franklin Henry Giddings, Charlotte Perkins Gilman, and

Peter Kropotkin. All are referenced. The degree to which Rodgers treats these authors varies greatly, however, with the most sustained and well-documented account being on the subject of evolutionary perspectives. She includes, as an example, how Kropotkin used illustrations of social insects to demonstrate the principles of voluntary mutual aid of his anarchio-communism, when he wrote: "the ants and termites have renounced the 'Hobbesian war,' and they are better for it" (70). Gilman is used in a chapter on "Alternative Versions of Insect and (Human) Sociality" to demonstrate how some theories have deviated from hierarchical descriptions of gender. Gilman described the "overflowing industry, prosperity, peace, and loving service of the ant-hill and bee-hive" resulting from the influence of motherhood and cooperative female government (159). Overall, however, Rodgers' strongest and most substantive examples of sociologists drawing from entomology are sociologists who were in fact critical of various forms of hierarchy.

The major deficit in Rodgers' account, however, is her lack of evidence for the workings of such an entomology-sociology "legitimating loop" in the human sphere. For instance, Rodgers writes that "Scientific theories and language do not cause social or natural reality but rather become co-constructions in social structure and interpretations of the natural world that then create a loop of legitimation for ideas or institutions that are created or reinforced" (22). I was confused as to how (social) scientific theory would not "cause social or natural reality" and yet co-constructs "social structure," and was disappointed that Rodgers did not provide any empirical account to support the social side in the above equation. Nowhere does she describe changes in social institutions or structure that relate to this "legitimating loop." A useful model for the kind of analysis that might have been helpful here is Paul Rabinow's French Modern: Norms and Forms of the Social Environment, where empirical links are drawn between 19th-century Lamarckian biology and the practices of French colonial expansion. In Rodgers' account, it seems that human hierarchy exists, it is modeled in descriptions of "social" insects, some sociology legitimates hierarchy through reference to the natural world, but hierarchy itself is not recreated through any visible means.

I found this absence particular troubling when considering her insistence on focusing on hierarchal descriptions in entomology. In her opening chapter, for example, she writes: "I am optimistic that the idea of insect sociality can be reconfigured without the strong bias towards hierarchy" (18). And while Rodgers nimbly demonstrated how social institutions and theory have clearly influenced the description of social insects, she never fully explores what is at stake in maintaining a hierarchical bias. It is assumed that readers will make the link between description of hierarchy and existing hierarchy. In that sense, her most useful provocation – the conscious neglect of disciplinary boundaries where metaphor and analogy are concerned – is not followed up with an equally rigorous accounting for the construction of actually existing hierarchy.

Nevertheless, this text will be of interest to researchers in science and technology studies and the social studies of knowledge. In terms of feminist or postcolonial research agendas, her book provides good empirical research documenting what we might want to describe as the socialization of entomology, including the

gendering and racialization of social insects by entomologists. However, I am unsure how securely her account would fit into either a feminist or postcolonial body of literature. Neither perspective is developed well enough for the work to stand alone as representative of either of these fields. Instead, Debugging the Link between Social Theory and Social Insects is perhaps more a reminder of how much the literature in science and technology studies and social studies of knowledge can benefit by including the observation of gendering and racializing activities.

Christopher Alderson, Carleton University.