dynamics systems approach, and neuro-physio-phenomenological methods offer a valuable contribution to the study of emotions and other affective phenomena. As such, this volume serves as a comprehensive resource for students and scholars researching new debates and trends in the philosophy of affective and cognitive sciences.

NATALJA CHESTOPALOVA *York University*

Essays in Collective Epistemology

JENNIFER LACKEY (Ed.)

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Particularly over the past decade there has been impressive progress in social epistemology. This is to be explained by the increasing awareness of the narrowness of the approach of traditional epistemology, which is deemed to be too individualistic in that it assumes that cognitive achievements belong exclusively to the individual believer, thereby ignoring the central part played by others in the acquisition, sustainment, and transmission of knowledge or justified belief. The main areas of social epistemology are the epistemology of testimony, the epistemology of disagreement, and collective epistemology, which is concerned with such questions as whether groups are epistemic agents, whether they have beliefs, whether they possess knowledge, and whether they have epistemic virtues. Of course, these areas are sometimes interrelated, as when one explores how to resolve disagreements between groups or whether we can rely on the testimony of groups.

Aside from the introduction—which unfortunately fails to provide an overview of collective epistemology—the volume is divided into four main parts. The first deals with the debate between summativists and non-summativists; the second with certain general epistemic concepts as applied to groups; the third with the connection between individual and collective epistemology; and the fourth with the application of formal epistemology to the collective domain. For reasons of space, I will limit myself to offering a brief summary of each of the 10 chapters.

Summativists claim that collective phenomena can be understood entirely in terms of individual phenomena, which means that a collective entity can justifiedly believe or know that *p* iff all or some of its members do. By contrast, non-summativists maintain that a collective entity is an epistemic subject in its own right, which means that such an entity justifiedly believing or knowing that *p* is different from its individual members justifiedly believing or knowing that *p*. In the first chapter, Alvin Goldman defends a summative position in his application of process reliabilism—an existing theory of individual justification—to the justification of group belief. He proposes a 'justification aggregation function' according to which the greater the proportion of members who justifiedly believe that *p* and the smaller the proportion of members who justifiedly reject that *p*, the greater the level of justification of the group belief that *p*. A non-summative view is adopted by Alexander Bird, who maintains that there exist social epistemic subjects that are more than just the sum of their constituent persons and that such entities possess knowledge. In the specific case of scientific knowledge,

Bird claims that what he calls "wider science" (48) (in contrast to the small, organized research teams) should be understood according to a distributed cognition model, which shows that wider science is a social entity with epistemic states. Jennifer Lackey closes Part One with an essay proposing a deflationary account of group testimony that is both reductionist and non-summative. In her view, when one acquires knowledge from the testimony of a group, the source of that knowledge is an individual or set of individuals. Hence, the group's testimony is reducible to that of one or more individuals who act as spokespersons, who nonetheless are not necessarily members of the group. For what is required for a hearer to acquire knowledge that *p* on the basis of a speaker's testimony is not that the speaker know or even believe that *p*, but that he be a reliable testifier—in the present case, a reliable testifier of the group's statement that *p*.

Philip Pettit opens Part Two with a paper that examines how we can tell if a group is an agent. He claims that only evidence of interpersonal engagement or interaction justifies the ascription of agency to groups, and that group agents of such a personal kind—which are conversable agents—count as real, non-fictional agents. Next, Sarah Wright argues that the Stoic theory of moral and epistemic virtues can be extended from individuals to groups. Although it is an intriguing question whether virtue epistemology can be extended to groups, Wright mainly examines Stoic virtue theory and, by my lights, rather easily claims that it can be applied to groups as well, without really engaging with the problems specific to collective epistemology. In the third essay of Part Two, David Christensen applies the conciliatory view he has defended in connection with disagreement between individuals to public group controversies concerning philosophy and politics. More so than in the case of peer disputes involving individuals, disagreements between groups that have similar epistemic credentials require that the rival parties significantly reduce their confidence in the disputed proposition.

Part Three consists of a paper by Ernest Sosa—which does not actually bear on collective epistemology—and a joint paper by Margaret Gilbert and Daniel Pilchman. Sosa argues that the reason the requirement of reliability is much higher in epistemology than in other domains (such as sports like basketball and baseball) is that knowledge is constitutively social: epistemic competences benefit not only the individual believer, but also the community to which he belongs, which means that knowledge is a social good. The main contention of Gilbert and Pilchman's essay is methodological: one should refrain from simply assuming that the accounts, concepts, and distinctions adopted within individual epistemology can be appropriately applied within collective epistemology.

Part Four comprises two more technical essays dealing with group coherence and judgment aggregation. In the first, Rachael Briggs, Fabrizio Cariani, Kenny Easwaran, and Branden Fitelson propose a new coherence requirement for individual belief—in lieu of the requirement of deductive consistency—that can be extended to group belief and that makes possible the resolution of traditional epistemic paradoxes. In the second essay, Christian List engages with Pettit's work on belief aggregation and identifies the conditions under which deference to supermajority testimony does not lead to (blatantly) inconsistent beliefs and those under which it does.

All in all, this collection is a fine contribution to the burgeoning field of collective epistemology.

DIEGO E. MACHUCA *CONICET* (Argentina)

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