Sun, Ron, ed. *Grounding Social Sciences in Cognitive Sciences*. Cambridge, MA: MIT Press, 2012. ix + 455 pages. Hardcover, $50.00.

This interesting book edited by cognitive scientist Ron Sun argues for incorporating cognitive (i.e. psychological and neurological) approaches into the existing social science analytical framework. Due to the importance of cognition in biological and social evolution, the authors maintain that cognitive understanding should be a common ground for all social sciences. They claim that this change will bring the social sciences closer to the physical sciences and to reality.

The book does not formally define cognitive science, but gives a list of subjects that fall into its realm, including "computational psychology, experimental psychology, linguistics, cognitive neuroscience, and so on" (p. 4). The authors say they do not want to see these fields create new sub-disciplines. They recognize the importance of traditional social science sub-disciplines, arguing that they are well established and have their own analytical structures and traditions. They believe, however, that it is possible to make existing fields better through the application of cognitive sciences.

The book addresses particularly the relationship between cognitive science and culture, politics, and religion. The authors consider anthropology to be the field most closely related to cognitive sciences. It was even considered a part of cognitive science by some researchers. The book focuses on how cognitive models can improve anthropological analysis in the context of culture through the interaction of self-systems and social systems. As the authors explain, "Using models as a unit of culture allows for the linkage between mental representations and social institutions" (p. 89). For political science, the book delineates emotion, discourse, and ethics, as three areas of potential overlap with cognitive science. The authors remind us, "Public opinion is shaped by powerful emotional forces" (p. 128). Moreover, the authors specifically identify anxiety and anger as cognitive factors that can be modeled together with such traditional factors as gender, education, or age in political science models. Since political action is largely language-based, the authors identify possible cognitive models to analyze political language and understand political social interaction. They also assess the possibilities for studying moral choices, particularly in the context of war and political upheaval. Cognitive perception, they argue, is able to explain "the spontaneous aspect of moral choice" (p. 185). The book treats religion as a special and influential component in social life that can be analyzed through either the standard model of cognitive science or through so-called coevolutionary theories. As they point out, the cognitive science of religion is a new branch of knowledge about the study of "the mental representation of ritual structures" and "the role of implicit cognition in cultural transmission" (p. 243).

Last but not least, the book discusses the potential links between cognitive science and economics. Paying attention to human behavior is not new in economics. Economics itself is a study of how people and society make choices and face scarcity. Incorporating cognitive variables in economic models not only builds on this existing attention to behavior, but also challenges the fundamental assumptions of rationality. Behavioral economists believe that people are "systematically inconsistent in their choices" and "are prone to act on scanty information even when more could be obtained with relatively little effort" (p. 298). Another branch of knowledge studying economics and cognitive sciences is called neuroeconomics, which merges economics and neuroscience together. It looks at decision making process from "social, psychological, and biological levels" (p. 315). The book also compares human capital

theory within economics with the theory of fluid and crystallized intelligence of psychology and implies the possibility of creating a new interdisciplinary theory based on both.

This book presents an interesting common thread among social science fields. It is noteworthy in using interdisciplinary approaches to improve and expand upon existing understanding. It shows numerous applications of cognitive science concepts for a variety of social science disciplines. However, the authors' purpose is not merely to discuss potential applications, but also to establish a foundation, a process they call "grounding" (p. 5). The last two chapters of the book discuss the role of cognitive studies in unifying social science research. This is a very ambitious goal. The authors believe that cognitive science should become as important for the social sciences as physics is for the for natural sciences. Although the book engages in extensive discussions about the necessity of this new foundation for social science, there are still some fundamental questions that need to be addressed before this revolutionary suggestion can come to fruition. First, social science disciplines typically utilize a common social agent with defined characteristics, such as a tribe or class group, as their basic research units. If cognitive science became the foundation of all social sciences, its inherently universal qualities (by focusing on the human mind) might undermine rather than enhance traditional social science approaches. Second, the measurement of cognitive/psychological factors is mainly qualitative. It is not only hard to measure but also much less accurate when compared to the quantitative data utilized in most social sciences. Third, under cognitive sciences, the macro/community based research may need to be largely separated from micro/individual based research. Even with these challenges, however, this book stands as a well written supplement for social scientists that are interested in incorporating behavioral issues in their research.

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