

Review

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BOOK REVIEWS: VAN DER DENNEN & FALGER

Sociobiology and Conflict: Evolutionary Perspectives on Competition, Cooperation, Violence and Warfare edited by J. van der Dennen and V. Falger

London: Chapman and Hall, 1990, 320 pp.
US\$89.50 cloth. ISBN 0-412-33770-3. Chapman and Hall, 29 West 35th St, New York, NY 10001-2291, USA.

Précis. This volume explores the contributions of sociobiology for an understanding of a wide range of conflictual behaviors among humans. While specifically focusing upon inclusive fitness theory, contributing authors forge ties between sociobiological propositions and data on conflict and cooperation from a wide range of disciplines, including sociology, social psychology, and political science, among others.

Following an introductory essay, which reviews definitional concerns as well as competing social scientific theories of conflict, the editors divide the volume into four sections. Part I, containing essays by J. A. R. A. M. van Hooff; Uzi Motro and Dan Cohen; and Popko P. van der Molen, presents theoretical and empirical studies on conflict from a biological perspective. In Part II, social scientists and biologists explore the relevance of sociobiology for building a cross-cultural perspective on human enmity. Included in this section are essays by Lionel Tiger, Joseph Lopreato and Penny Anthon Green, Yochanan Peres, Michael Hopp, and Olwen Rasa. Part III, which focuses on primitive warfare, discusses existing literature, considers the development of new hypotheses, and presents a detailed empirical case study. Contributors to Part III include Johan M. G. van der Dennen (two essays), Colin Irwin, Peter Meyer, and Umberto Melotti. Part IV consists of one chapter by Ullica Segerstrale, discussing controversial aspects of sociobiological theory and its use in the study of human behavior.

Joseph Losco

A Review by Marc Howard Ross

All the essays in this volume are concerned with how biosocial insights can help us better understand human conflict and warfare. I wish, however, that the editors had provided more of a theoretical integration of the many and diverse points the authors make by presenting a point of view and emphasizing areas of agreement and disagreement.

One theme that might have served this integrative role is the question of the relationship between biological and cultural evolution. There are now two very different poles in biosocial writing on this question. One viewpoint is that biological evolution creates limits under which cultural processes operate. This perspective emphasizes ways in which all social and political processes can ultimately be subsumed under individual-level kin selection, the ultimate explanation of all behavior. This point of view is represented by hard-wired sociobiologists, such as Shaw and Wong (1989), who are ready and willing to connect many proximate conflicts, such as *coups* in Africa, to inclusive-fitness maximization, the ultimate cause. This produces a theory with great explanatory power. It also produces charges that the explanation is overly mechanistic and that it leaves unanswered empirical questions about how it works.

The second viewpoint does not reject kin selection as the basic mechanism of biological evolution. It suggests that cultural evolution can, at times, operate independently of, and even in opposition to, biological evolution; and that there are important limits to biological selec-

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tion processes. This viewpoint is found most clearly in the work of Boyd and Richerson (1985) and Campbell (1975, 1983), who broaden the discussion of biosocial concerns beyond the methodological individualism of inclusive fitness theory by giving an independent, and at times co-equal, role to cultural processes (see Caporael *et al.*, 1989; Brewer and Caporael, 1991).

Differences in the implications of each perspective for understanding conflict, violence, and warfare are important. The first perspective emphasizes the limiting effects of kin selection on the size of effective cooperating groups and leads us to expect high intergroup conflict in response to limited resources. The second position draws attention to ways in which social and cultural institutions and practices can counter the constraints on cooperation created by inclusive fitness needs. Group selection, then, is possible as a cultural, not biological, mechanism under certain conditions. Those who view biology as dominant are inclined to see the human experience, past and present, as filled with conflict and violence; those who incorporate culture as a sometimes autonomous explanation tend to see more variation in the human experience.

The essays in this book address issues that are central to each of these viewpoints, and I would have appreciated a clearer articulation of the authors' points of view on several of the issues. In these essays, there is general acceptance of the core propositions of sociobiological theory and the effort to explain the presence or absence of intergroup conflict and warfare within the cost/benefit framework it offers. At the same time, many of the authors challenged the substantive conclusion that many, but by no means all, sociobiologists (and others) have reached—that is, that human experience has been filled with conflict and violence. While in certain situations it may be advantageous from the point of view of kin selection theory to fight, one empirical issue is the extent to which these conditions have been present in human groups over time.

Several of the essays raised questions concerning the extent to which interpersonal and intergroup violence were an important part of intergroup relations in the past. There are those, such as Eibl-Eibesfeldt and Shaw and Wong, who view past human group relationships as violent and highly competitive. Van Hooff, in his essay, says this is a very one-sided reading of the evidence. Van der Dennen questions such inferences, saying that group decisions to fight could only make sense if there was strong population pressure and only if resources were scarce and clumped. However, he argues, these conditions were not likely to have been present for much of the time in question.

Another point of contention raised in several of the essays involves the link between the development of large-game hunting and the capacity to wage war. Using evidence from contemporary hunting societies, several

of the authors challenge the connection between the two, suggesting that the frequently posited psychological links between hunting and warfare are unfounded. While the skills used in hunting may be similar to those needed for intergroup fighting, this similarity does not mean that hunters necessarily become bloodthirsty killers of conspecifics.

Van der Dennen and several others are intent on rejecting the idea that the human past was exclusively one of intergroup violence, and he and other authors turn to the ethnographic and archaeological records for support. Yet using these data to provide clear answers is difficult. Too often, scholars single out particular societies whose experience supports their point of view. But this is weak evidence for a theory. A more sophisticated use of the ethnographic record requires also paying attention to methodological issues of sampling, the independence of cases (Galton's Problem), and the issues of coding and comparison. I raise these concerns because none of the authors do so except van der Dennen, who rejects them as irrelevant to his Ethnological Inventory Project. I consider them relevant.

The great interest some of these authors show in the question of whether there are any hunter-gatherer societies with no warfare is driven by a concern with the biological constraints on cultural development. Documentation of peaceful societies is critical, from this perspective, for rejecting the idea of a universal human aggressive drive, just as showing that the human experience is violent is critical for those taking the opposite position.

Other authors, such as Peres and Hopp and van Hooff, are more interested in why there is such a great range in the level and patterns of conflict in human societies. This approach is much more compatible with Boyd and Richerson's interest in how cultural evolution can operate independently and differently from biological selection to explain organized violence. Several of the essays address cultural differences in the construction of the social group and conceptualization of interests, and Meyer provocatively suggests that "people do not fight for resources, but for ideas of resources" (p. 232).

What can the ethnographic record tell us about the evolution of social institutions involving violence and warfare, and how should the record be used to avoid important methodological threats to validity? It can certainly teach us a great deal through evidence from relatively recent preindustrial societies (a somewhat biased sample). Individual cases, when analyzed intensively (as Irwin does with the Inuit), can show specific ecological, social, and cultural factors that determine when violence will be directed against particular targets and how that violence will be organized. In addition, because some conflict and violence occur in all known societies but take different forms and levels, cross-cultural evidence is ideal for discovering why conflict and violence seem to

be so important in the daily life of some societies, while in others organized violence and warfare are extremely rare (Ross, 1986, forthcoming).

This reading of the ethnographic record leads us to recognize that while humans clearly have a capacity for aggression and violence, which is partially biological in nature, social and cultural contexts activate this capacity in many different ways and at different levels. The same argument can be made about other behavior domains as well; for example, Howell and Willis (1989) argue that sociality, not aggression, is the most fundamental human characteristic.

The relationship between biological and cultural evolution is a fundamental issue and needs greater clarification. We should be particularly aware of what evidence might help us discard certain untested notions. The essays here did not challenge kin selection theory, *per se*, but they did attack some of the ideas about the human past offered by the strongest advocates of a socio-biological approach. In addition, while none of the authors spelled out very fully how their arguments are consistent with the idea of limits to inclusive fitness theory and an independent role for cultural evolution,

much of the material presented here is clearly a contribution to this perspective.

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Review of J. van der Dennen and V. Falger, *Sociobiology and Conflict*

Evolutionary Seeds of Conflict: A Bumpy Ride

R. Paul Shaw

There could not be a better time to assess the utility of evolutionary biology for insights into the widely prevalent behaviors of intergroup conflict and the kinds of cooperation that make warfare possible. After all, the stage has been set with theoretical concepts such as W. D. Hamilton's "axiom of inclusive fitness"; J. Maynard-Smith's "evolutionarily stable strategy"; E. O. Wilson's application of inclusive fitness to the altruism puzzle in social insects, primates, and humans; R. D. Alexander's treatise on the "balance of power hypothesis"; and I. Eibl-Eibesfeldt's bold applications of evolutionary biology to warfare, to name just a few. In addition, empirical studies have looked into the significance of coefficients of relatedness to cooperative behavior among non-human species, the pertinence of similarities and differences in altruism between dizygotic and monozygotic twins, and the relevance of inclusive fitness to understanding primitive war. Equally helpful has been the contentious debate on sociobiology, highlighting flaws in the interpretation of theories, hypothesis construction, and testing.

A repetitive message is that identifying causes of

human conflict, let alone modifying them, will be contingent on interrelating contemporary, proximate causes with ultimate ones. This conviction demands that studies of evolutionary seeds of conflict consider more proximate causes and produce multidisciplinary theories—replete with biological, anthropological, sociological, political, and, especially, psychological considerations. Perhaps the only significant hurdle to doing so is to become sufficiently versed in more than one traditional discipline so as to be equipped for the challenge.

It is with these sentiments that I come to *Sociobiology and Conflict*, edited by J. van der Dennen and V. Falger. Do the contents of this book take us a step forward in applying evolutionary theory to the understanding of conflict? Do they take us to a point where a multidisciplinary theory or elements of it begin to take shape? As a book of readings on competition, cooperation, violence, and warfare, does *Sociobiology and Conflict* represent a useful introduction to the major issues involved? Is it well presented, clear, comprehensive in coverage? In response to all four questions, my opinion is that the book has several pluses but that it fails to achieve "take off."

Not to be missed is the study of limited group conflict among the Inuit by Colin Irwin. All central facets of good

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