

Dominance Relations: An Ethological View of Human Conflict and Social Interaction

Edited by D.R. Omark, F.F. Strayer, & D.G. Freedman

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This text reviews current research findings on dominance relationships at the primate and human levels from phylogenetic and ontogenetic perspectives. While historically research on social dominance focused narrowly on observations by ethologists of the outcomes of competitive behavior between animals in their natural habitats, the new, holistic ethological approach (started within the past five years) examines interactions between human beings, especially children and adolescents, at both verbal and nonverbal levels in a variety of ecological settings. In an interesting opening chapter, Omark outlines the goals of this new perspective. Omark seeks to convince investigators that dominance relationships can be more fruitfully studied by using a broader theoretical and methodological framework than has previously been the case. Within this framework, organisms would be treated as organized entities and their behavior examined at various levels of operation, including the chemical, structural, physiological, psychological, and anthropological. Such an approach also assumes that all levels of organization operate simultaneously and that increased understanding of dominance behavior can be expected if investigators rely on correlational rather than causal models in their conceptualization and analysis of phenomena in this area.

While this plea for a new, integrative model for studying dominance is commendable, the majority of the collection of papers in this volume demonstrates that this goal is far from being realized. Instead, investigators within a particular discipline often give lip service to the need for an interdisciplinary approach in the area, while continuing to apply conceptions, techniques, and explanations unique to their disciplines, yet ignoring the work of others. Freedman's article on sexual dimorphism provides a good example. He relies almost completely on biological and evolutionary explanations of the origins of dominance and status differences between males and females. We are told by him, for example, that mammalian males tend toward promiscuity because they have a predisposition to maximize their own genetic contribution to subsequent

generations. Likewise, we are informed that boys are predisposed toward mechanical tinkering because they have a major recessive gene located on the *X* chromosome which predisposes them toward having spatial-visualization skills. In addition, it is proposed that girls start life more cuddly than boys. Such a judgment is made because research shows that newborn girls mold into the arms of adults better, kick less, and offer less resistance to being cuddled than boys. Girls are also more adept at appeasement behavior than boys, according to Freedman. He bases this judgment on research findings which show that girls smile more readily than boys. Presumably, smiling is a way for the physically weak members of the species to ward off anticipated physical attack by dominant males. Such monolithic, *post hoc* explanations, with only minimal and vague reference to the influence of social and cultural forces, are not likely to endear Freedman to environmentally-oriented social psychologists nor to feminists seeking to change the traditional image of women as weak and subservient.

On a more positive note, the research in the volume shows that there is clearly a resurgence of interest by investigators in various disciplines in the study of dominance relationships. Research in the area is burgeoning, and there is an excitement and liveliness surrounding the research which is refreshing. Part of this renewal of interest can be attributed to the fact that there are now an amazing variety of techniques that can be used to study dominance relationships besides the ones employed traditionally by ethologists. As one further example, dominance in children and adolescents can be assessed via self-reports of perceptions of toughness among peers and by observations of the number of times one child verbally threatens another and/or physically challenges the other by taunting or glaring. Dominance can also be measured in terms of the relative frequencies in which one child argues, teases, ridicules, or shoves another. Unfortunately, the convergent validity of many of these measures is poor, as a number of the authors correctly note. There are also a host of other problems, both conceptual and methodological, typical to any exploratory research area which will have to be addressed and solved if research in this area is to progress further. These issues and problems are discussed by Strayer in his excellent overview of the field in the last chapter.

In conclusion, it is evident that this volume is required reading for any investigator in the field. It provides a needed summary of the latest thinking and research on a topic that is highly pertinent to our understanding of social organization and functioning.

The Iceland Papers

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The Iceland Papers is a collection of papers presented in Rejkavik, Iceland at a conference of psychical research and its relation to modern theoretical physics. It was the first conference of its type, and the excitement all but leaps off the page. The editor, exuberant throughout the introduction, trumpets that the theories presented "will resolve the matter-mind problem." Few will agree with his pronouncement. *The Iceland Papers* is an unbalanced collection of important, intriguing findings, and incomplete, at times overly speculative, theoretical formulations.

In addition to an introduction that maps the development of the conference, two empirical studies and three theoretical papers are presented. Puthoff and Targ, in a clear and methodologically convincing manner, examine the ability of trained and untrained subjects to "view" geographical locations up to several thousand miles away by "connecting" with someone known to them at that location. That is, one person stands in New York City and looks at the Statue of Liberty while another sits in a lab in California and draws (often accurately) what the first person sees. This phenomenon, known as "remote sensing", has been replicated numerous times (Targ & Puthoff, 1974; Puthoff & Targ, 1976). Among the new findings in this paper is the fact that untrained, even skeptical subjects can accurately draw distant locations, and some subjects can "remotely sense" up to 90 minutes before the target person arrives at the site.

In the second empirical paper, Hasted presents the results of rigorous experimentation into psychokinetic metal bending. Certain pre-selected subjects, all of whom were children, produced structural changes in metals without physically touching them. One young man was able to exert the equivalent of 5 tons of compression on a strip of metal housed inside a test tube. Hasted also reports 12 cases of the teleportation of crystals from one sealed transparent box to another.

Taken together, the results of Puthoff and Targ and Hasted provide convincing evidence of these phenomena and the fertile possibilities of psychical research. New theoretical formulations are required in areas such as human potentialities, information processing, and con-

sciousness. *The Iceland Papers* makes the attempt to combine theoretical physics with psychic phenomena—it doesn't succeed. Part of the problem is the size of the task. The central purpose of *The Iceland Papers* is to incorporate quantum mechanics and relativity theory into a model that allows consciousness to effect and manipulate physical systems. In quantum mechanics, the properties of a particle are indefinite, until measured (observed). In this sense the indefinite wave function of the velocity of a particle is collapsed to a state of definite velocity as a result of the active intervention of consciousness to measure it. These authors argue that consciousness "reorganizes" the random quantum fluctuations of matter so as to produce the psychokinetic effect. In addition, they cite the Einstein-Podolski-Rosen effect, which shows that if two systems have interacted in the past, then the measurement of one system collapses the wave function of both systems, even though the two systems may be far apart at the time of measurement. The systems are then related. While this line of reasoning is intriguing, the jump from consciousness as the active element that collapses or specifies the indefinite wave function of matter to consciousness reorganizing the structure of matter is too great. And because two subjects have met before, their "consciousnesses" are related and, therefore, "remote sensing" occurs? While I have simplified the theoretical presentations, they are unsatisfying as presently formulated.

The value of *The Iceland Papers* lies in its empirical investigations of remote sensing, teleportation, and metal bending. With the exception of the Mattuck and Walker paper, the theory chapters are overloaded with mathematical formulas with little or no explanation for the interested layperson. This factor unnecessarily limits the book's potential audience. I would not recommend *The Iceland Papers* to anyone without post-graduate training in physics, calculus or other closely related areas.