

Preface

One day, the three of us were chatting about politics, and we wondered why so much public policy in the United States often seems to be at odds with central findings from social science research. Certainly, we agreed, much knowledge generated from social science research is inconclusive, controversial or ambiguous. Yet, as “practicing social scientists,” it seemed to us that many of our public policies are not only uninformed by evolving knowledge in psychology, political science, sociology, and organizational behavior, but may even be contrary to the best conclusions social scientists might draw from various analyses of core topics in these disciplines. In other words, existing scientific evidence seemed to suggest that many of our public policies are based on incorrect or incomplete assumptions about human nature and about the factors that promote a happy, healthy, and productive society.

Nowhere did this disconnect between public policy and scientific knowledge seem more true than with regard to assumptions about the sources of human happiness and the power of cooperative behaviors to solve problems that confront and challenge society. It often seems that public policies are designed in such a way that they have the effect of impeding rather than maximizing human happiness, and of making cooperation both more difficult and less rewarding than narrow, self-interested activity. A simple case in point is the research on the sources of human happiness, where much evidence shows that increasing levels of income or wealth do not result in commensurate increases in levels of individual or collective happiness. Rather, factors such as satisfying and supportive interpersonal relationships and a significant measure of economic *security* (not wealth or level of income) have a much more powerful and direct impact on happiness. The findings on this topic are quite consistent. Yet, public policies often seem to be designed to maximize wealth and income, if not for the collective as a whole at least for significant sectors of society. That is, policies all too often are fashioned in such a way as to reduce the net amount of happiness, by making supportive relationships and access to the kinds of consistency and security that promote happiness more difficult to achieve. Other examples abound.

What seemed to us to tie together many examples such as the one just given is

the power and potential of cooperation. We all know that cooperation is common at all levels of every society. Yet, however prevalent cooperation may be in our political culture, it does not receive the rhetorical acclaim or moral high ground accorded to competition or the myth of the self-sufficient individual. Certainly, cooperation has not been studied as widely or deeply nor has it penetrated as profoundly into the political or popular culture of the US as has the corpus of concepts related to economic competition. Our political elites are now fairly uniform in their belief that economists have shown without doubt that marketplace competition is more efficient and thus “better” than collective solutions to most human problems.

The three of us began to wonder whether there was an evolving body of social science knowledge about the nature, sources, and impact of cooperative behaviors in our society. Although understudied, the concept of cooperation is becoming more central to research in psychology and political science. We were curious about whether recent work would support common conclusions and whether we might begin to draw some inferences that could guide us toward public policies that will enhance cooperative behaviors and human happiness rather than maximize wealth or economic efficiency, neither of which do much to promote happiness once basic needs are met.

The result, of course, is this book. We asked leading social scientists who are working on topics related to cooperation to write chapters that would meet several criteria. One, they should try to provide an overview of their work and that of others who work on similar topics. Two, they should try to identify “what we know” or at least “what we think we know” from their research as it relates to cooperative behaviors. Our focus was to be on claims we believe we can make rather than mere critiques of extant work or suggestions of further work that is needed. Three, they should write their chapter for other experts who are working on similar topics, and for informed novices who could get a good sense of the kinds of claims that are now supported by research on cooperation, its sources, and its consequences. That is, the chapters should be cutting-edge but easily accessible to readers of this book. If we wish to build our public policies around the best current knowledge of what enhances human happiness, it appears that we must have a better widespread cultural understanding of human cooperation.

Frankly, we have been pleasantly surprised by the consistency and congruence of the varying streams of research reported in this volume. We probably know much more with greater certainty than the three of us expected, though much of that certainty will surely be modified significantly if this becomes a topic of greater scholarly attention in the years to come.

Finally, we dedicate this volume to our readers, who we hope will be inspired both to rethink the role of cooperation in promoting human happiness and also to make cooperation a focus of their ongoing research.

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The Centrality of Cooperation in the Functioning of Individuals and Groups

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Introduction

What are the key ingredients for a happy, meaningful, productive life? How can we create effective groups, productive organizations, and well-functioning societies? As we near the second decade of the twenty-first century, the answers that we find to these questions have implications for the future of humankind. For example, as internet and wireless technologies increasingly bring people together and allow for instant communications across the globe, simultaneously the challenges and problems faced by individuals and societies are increasing in magnitude and complexity. Globalization means that individual lives as well as groups and organizations are directly influenced by economic and political forces many thousands of miles away. How we design public policies, institutions, and organizations to capitalize on such forces and cope with the resulting change will influence the quality of life of individuals and societies around the world.

Although the scope and pace of change may be at historically high levels, certainly this is not the first time in history that humanity has faced sweeping technological, economic, political, and social change. However, even as we face such changes today, we have one important advantage over the past: a sophisticated and vigorous social science. This science is accumulating valuable empirical knowledge regarding how individuals and groups function. As a result, for the first time in history we are gaining a solid scientific understanding of how political, economic, and social forces affect individuals, groups, and societies as well as how such forces themselves operate and are, in turn, shaped by individuals, groups, and societies. We are now in a position to use this new science to enhance the quality of life and well-being of individuals, groups, and societies and allow us to deal more effectively with the complex, large-scale problems we increasingly face. In other words, while the world experiences rapidly accelerating change, we are simultaneously developing a sophisticated and vitally important science that allows us to understand and use such change to improve individual and group functioning. With the aid of social science, we may be facing a future in which individuals feel

more in control of their lives and well-being, are *less* worried about unpredictable and sudden change, and have access to *greater* resources for coping with the difficulties and problems in life and achieving a high level of well-being. The research discussed in this book points the way toward just these sorts of outcomes even in the face of tremendous change.

Despite the maturing of social science, there are barriers to achieving the goal of a broad and truly comprehensive understanding of the social world and applications of such a scientific understanding to real-world problems and situations. Perhaps most prominent among such barriers is the often fragmented nature of the social sciences. Although psychologists, political scientists, sociologists, and others frequently study the same, or highly similar, phenomena, there is little integration across disciplines. Even within a single field, such as psychology or political science, there are many sub-disciplines which focus on self-contained research programs that may integrate research within, but seldom across, sub-disciplines (and very rarely across fields). The net result of such fragmentation is that any one line of research, although appearing to be largely self-contained, may provide only a small piece of a much larger body of research on a given phenomenon. Further, considered in isolation a stream of research may appear small in scope, with limited application, and providing tentative support for a set of hypotheses. However, if integrated across other lines of research, the picture may be quite different—the scope of a phenomenon or class of phenomena may be quite large, suggest broad-scale application, and provide quite robust support for a set of hypotheses.

In this book, we argue that social science research, when integrated across multiple disciplines and lines of research, provides a scientific understanding of the key ingredients for a happy, meaningful life, how to create effective groups, productive organizations, and well-functioning societies. We acknowledge that this understanding is partial and reflects the findings and theories of a relatively new science. However, we firmly believe that there is tremendous value to be gained in integrating across fields and sub-fields and there is now sufficient evidence to do so.

Research across the social sciences is converging on the conclusion that a key ingredient for happy, well-functioning, and productive individuals and groups involves strong connections, (characterized by fair treatment, trust, and mutual support) with other individuals, groups, and institutions. This conclusion has proven to be robust across diverse lines of inquiry and across disciplines. The fundamental importance of strong, supportive interpersonal connections appears across the lifespan, having been revealed by research on infancy and childhood through old age, emerging at multiple levels of analysis from individuals and small groups to organizations and entire nations, and relating to outcomes ranging from individual happiness and health to group and organizational functioning to the vitality of communities. Although such connections do not tell the whole story of individual and group functioning, they clearly tell a very important part of that story.

At the heart of this convergence of research findings lies a deceptively simple, yet vitally important phenomenon—cooperation. Many social scientists have examined

cooperation, and many more have studied phenomena directly related to cooperation. However, the true breadth and power of cooperation as a critical force in human affairs only emerges when viewed across multiple areas of research in multiple domains. Few other constructs so consistently emerge as important factors in so many different areas of inquiry. Accordingly, we have two main goals for this book. Our first goal is to present a sampling of the evidence supporting the importance of cooperation as a key factor in individual and social functioning. This evidence has been generated by many different lines of research from many different fields within the social sciences. Our second goal is to begin to integrate this large body of evidence and synthesize it into a more nuanced understanding of the nature of cooperation. This understanding includes how and why cooperation is so important as well as what can be done to capitalize on the existing research to improve individual quality of life and to create productive, effective groups, institutions, communities, and societies.

The Central Importance of Cooperation

For the purposes of this book, we define *cooperation* as behaviors undertaken by individuals and groups of individuals in the service of a shared and collective goal and to promote collective well-being. Typically, cooperative behaviors occur voluntarily and in the absence of duress. In other words, when an individual is coerced or forced into serving a collective goal, this would not be considered cooperation. *Cooperative processes* are defined in turn as phenomena that characterize the *implementation* of cooperative behavior, many of which are involved in promoting cooperative behavior and determining when and where it will occur—causing such behavior to increase or decrease over time in response to changes in goals and environmental factors.

Evidence for the importance of cooperation arises from many individual streams of research. For example, empirical studies have shown that individuals lead happier, more satisfying lives when unpredictable threats to well-being are minimized (e.g., through stable economic and political systems that respect human rights), basic needs are guaranteed, and social connections are strong and mutually supportive (Diener & Seligman, 2004; Radcliff, 2001). In other words cooperation, in various forms, is a key antecedent to human happiness. Such research also shows that happy individuals are active citizens, and productive employees, and enjoy good psychological and physical health (Diener & Seligman, 2004). Related research has found that volunteering, an altruistic form of cooperative behavior, promotes psychological adjustment and well-being (Piliavin, 2003). At the group level, empirical research has demonstrated that cooperative interpersonal interaction between members of different groups (e.g., racial, ethnic, religious groups) whether in the workplace, at school, or in the neighborhood, reduces intergroup conflict and prejudice and promotes tolerance and positive intergroup attitudes

(Gaertner & Dovidio, 2000; Oliver & Wong, 2003). Research on negotiation and group decision making has shown that cooperative behaviors are key antecedents for high-quality negotiation outcomes and effective team decision making (O'Connor & Tinsley, 2005; Peterson, 1997). Other research has shown that cooperative processes within a society influence the well-being of that society, including economic, political, and social health (Rahn, et al., 2003). As illustrated above and throughout the chapters of this book, the list of benefits associated with cooperation is quite lengthy and includes many factors critical to individual and social functioning.

The convergence of such disparate lines of research on a common underpinning of human happiness and well-being has serious implications for the health of economies, the strength and effectiveness of democracies, and our ability to successfully deal with global challenges through collective action. One purpose of this book, then, is to illuminate the tremendous importance of cooperation in promoting healthy, well-functioning individuals, groups, and nations and address the question of how cooperation research can be applied toward addressing and solving real-world problems.

Integrating Disparate Lines of Research on Cooperation

In editing this book, and in inviting authors to contribute chapters, we set out to evaluate and answer three specific research questions regarding what social science has learned about cooperation. Although these questions are beyond the reach of any single line of research, we contend that they can be answered, with surprising clarity, through integrating the totality of work contained within this book. These questions also form the first half of the framework around which this book is organized.

Three key questions

One premise underlying this book is that there is sufficient scientific evidence to conclude that cooperation is a key factor, and probably a necessary condition, for individual and societal functioning. Evaluating this premise requires an answer to the following question:

Question #1: What are the specific effects of cooperation (and the lack thereof) on the well-being and functioning of individuals and groups of various size, including organizations and societies?

The research presented in this book, backed by decades of laboratory and field research, provides a remarkably consistent and relatively simple answer to this question. The effects of cooperation are robust and positive, and observed at all

levels of analysis. Each chapter in this book fills in some details concerning the effects of cooperation and/or the costs of failures to cooperate.

Beyond assembling the available research to answer Question #1, a major goal of this book is to integrate findings from across the social sciences to formulate an understanding of the mechanisms that explain the power and importance of cooperation.

Question #2: How and why does cooperation influence individual and group functioning?

Although the answer to this question is more complex, and perhaps less complete, than the answer to Question #1, existing social science research does provide a provisional answer. A part of this answer lies within an understanding of how the human mind is wired emotionally, cognitively, and behaviorally. In other words, some of the mechanisms through which cooperation influences well-being involve intra-psychic processes such as the generation of positive emotions and interpersonal engagement. Further, a substantial part of the answer to Question #2 lies at the intersection of individuals and groups, and requires an understanding of the psychological functioning of individuals within groups as well as how this interrelates with group dynamics and group functioning. These mechanisms involve the interplay between individuals and groups, including factors such as leadership, policy making, and resource distribution.

The answer to Question #1 suggests that cooperation is a crucial factor in shaping highly functioning individuals and groups. The answer to Question #2 provides a conceptual understanding of *why* cooperation is so important and the myriad ways in which cooperation operates and links individuals and groups. A third question posed in this book concerns the application of this science in the service of improving the human condition. If cooperation is truly as powerful a force as we contend, and if the social sciences provide an understanding of the mechanisms through which cooperation exerts such power, then we have sufficient tools to apply this research in the service of improving individual lives through promoting various forms of cooperation. Accordingly, we posed the following research question:

Question #3: How can institutions, procedures, policies, groups, and societies be designed to facilitate cooperation and thereby increase the well-being and performance of individuals and groups?

Although this question has received somewhat less empirical attention compared to Questions 1 and 2, social science research provides an extensive, if tentative, answer.

In answering our three research questions, a number of broad themes emerge which provide conceptual guidance in constructing a deeper understanding of why

cooperation is so important for individual and group well-being. These themes are reflected in multiple lines of research and represent the specific points of convergence across literatures. Further, consideration of these themes reveals a functional model of cooperation which illuminates the needs and motivations that underlie the various phenomena discussed in this book. Finally, these broad themes provide the second half of the framework around which this book is structured and the contents can be understood and organized.

Broad Themes: A Functional Understanding of Cooperation

1 Positive social connection as a source of emotional well-being

First, there is considerable evidence that feeling connected to others through a sense of group identity or shared humanity is a key component of cooperative processes. One theme running through much of the research presented here concerns how group identities are formed, the thoughts, feelings, and behaviors associated with having a sense of connection with others and groups, and what happens when such connections and group identities are not formed or are characterized by suspicion and distrust. Positive social connections serve a number of functions which center around emotional well-being and psychological adjustment. Specifically, positive social connections are a major source of happiness, life satisfaction, meaning, and other forms of positive affect, whereas poor social connections produce unhappiness, dissatisfaction with life, and other forms of negative affect. In other words, an important function of positive social connections is producing and maintaining positive emotional well-being and regulating emotions throughout the lifespan.

2 Fairness, justice, and trust as guidance for surviving and thriving in a complex social environment

Surviving and thriving as a human being requires participating in social, educational, economic, and political groups, among others. Investing time, energy, and other resources in groups that honor commitments, respect individual needs and interests, and provide justice when rules are violated is likely to reward individuals with higher-quality lives and the support necessary for coping with problems. On the other hand, investing resources in groups that do not honor commitments, do not respect individual needs and interests, and fail to correct injustice and unfairness is likely to prove detrimental to individual quality of life and deprive individuals of coping resources. As a result of the need to wisely invest personal resources in groups, the expectation of cooperation, as experienced through perceptions of fairness, justice, and trust, serve a critically important function for individuals. There is considerable evidence that a central component of cooperative

processes involves ways in which groups communicate (intentionally and unintentionally) to individuals the extent to which they are valued and can expect to benefit from group support and shared resources.

It is worth noting the possibility that positive social connection, which results from participating in trustworthy, mutually supportive groups, plays a key role in emotional regulation because such connections are tied to an individual's survival and level of functioning. In other words, positive social connections produce positive emotions and dampen negative affect because they indicate the individual is in a safe environment in which social support in various forms is available. However, a lack of social connections or poor connections may produce negative emotions and amplify negative affect because such a lack of positive connections indicates the individual is in an unsafe environment in which support is unavailable, threatening survival and well-being.

3 Cooperation as a foundation for group functioning and productive intergroup relations

From the perspective of groups, from small decision making groups to entire societies as well as relationships between nations, a key problem is forming a solid foundation on which such groups can function and interact productively. This task involves convincing individuals and groups to actively participate, share resources, knowledge, and expertise, respect one another, and perceive group leadership and group decisions as legitimate and, in the main, wise. Groups of all sizes and with various purposes depend upon individual participation, motivation, and investment for high-quality performance. Groups built upon a foundation of cooperation are uniquely capable of solving difficult social, political, and economic problems, generating creative, high-quality outcomes, and prove viable and robust in the face of setbacks and over time.

In sum, research on cooperation and cooperative processes can be integrated from a functional perspective in which specific constructs are connected with specific underlying needs and motivations of individuals and groups. This functional perspective is summarized in Table 1.1 and represents the heart of the conceptual model of cooperation underlying this book.

4 Cooperation as a multi-level, cross-domain phenomenon

The final piece of this conceptual puzzle involves an accounting of the multi-level nature of cooperation along with ways in which cooperation and cooperative processes cross domains. For example, cooperative processes in the workplace affect experiences at home (Bono et al., 2005) and in the political arena (Greenberg, 1986). Government economic and social policies that reflect group-level cooperation affect individual happiness and satisfaction with life (Radcliff, 2001), which in turn influence economic productivity and health (Diener & Seligman, 2004).

Table 1.1 A functional framework for understating and integrating cooperation research

<i>Construct</i>	<i>Function</i>
Positive social connection	Emotional well-being and adjustment: promotes happiness, satisfaction with life, a sense of meaning, dampens depression, anxiety, and other negative emotions; facilitates healthy affect regulation
Fairness, trust, justice	Facilitate surviving and thriving in a complex social environment; guides individuals toward a wise investment of personal resources (time, energy, knowledge, etc.) in groups
Cooperative behaviors	Facilitate group functioning and productive intergroup relations; allow for active engagement of individuals and groups in the task, sharing of knowledge and resources to solve group problems, promotes positive, tolerant attitudes within and between groups which result in creative, mutually beneficial problem-solving

Cooperative decision making influences individual behaviors as well as group functioning and the legitimacy of political leadership (Hibbing & Alford, 2004; Peterson, 1997; Tyler & Blader, 2003). Experiences with parents in early childhood influence adult political attitudes (Milburn, et al., 1995). These are just some of the most prominent examples of research showing that the effects of cooperation in one domain are interconnected with phenomena in other domains. Such interconnection suggests that a full portrait of cooperation would cross economic, political, educational, medical, and interpersonal domains (among others). An important corollary of this interdependence is that a lack of cooperation within one domain, such as mistrust in the workplace or with government, is likely to have a negative impact on other domains, such as interpersonal relationships and health.

Another way to look at the deep interconnection that characterizes cooperation is by *level of analysis*. For example, individuals who experience cooperative processes in their daily lives experience greater psychological well-being and less risk of various psychological and physical illnesses, are more motivated, productive, and committed at work, are more trusting of other people, are more supportive of leaders and group decisions, invest more of their resources in groups, communities, and politics, are less prejudiced and more tolerant toward others, are more likely to help other people, and are more effective at resolving conflicts (Bono, et al., 2005; Diener & Seligman, 2004; Eisenberg, Valiente, & Champion, 2004; Gaertner & Dovidio, 2000; Hibbing & Alford, 2004; Monroe, 1996; O'Connor & Tinsley, 2005; Oliver & Wong, 2003; Piliavin, 2003; Tyler & Blader, 2003). At the group level (e.g., small groups, organizations, communities, etc.), cooperation is associated with greater group cohesiveness, sharing of resources and knowledge, effective management of conflict, tension, and negative feedback, the ability to forge positive,

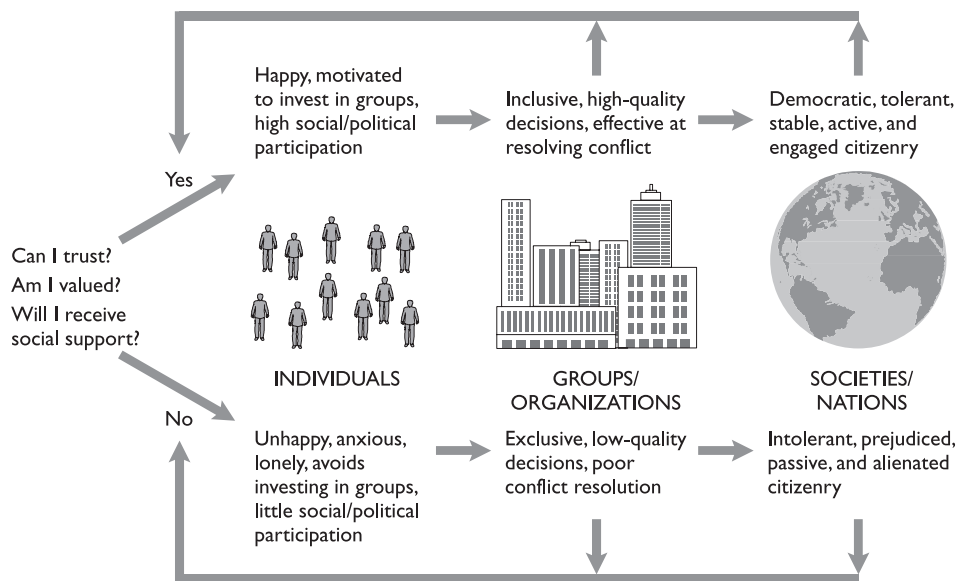


Figure 1.1 A multi-level model of cooperation and related processes

productive relationships with other groups, resolution of intergroup conflict, better leadership, and higher-quality group decisions (e.g., Gaertner & Dovidio, 2000; Peterson, 1997; Peterson & Behfar, 2003). Even among very large groups, such as entire nations and groups of nations, cooperation is related to the overall level of happiness and life satisfaction among the population, the strength and robustness of democracy and corporate profitability (through a more motivated and active citizenry), greater trust in government and support for public policies, the availability of various forms of help and support for people in distress, less intergroup conflict, including prejudice and violence, and more effective resolution and management of international conflicts (e.g., Oliver & Wong, 2003; Rahn, Yoon, Garet, Lipson, & Laflin, 2003).

From a conceptual point of view, the cross-level nature of cooperation means that cooperation involves complex, iterative processes in which individuals and groups continually influence one another in profound and important ways. Based upon evidence that individuals are active regulators of cooperative behavior, we propose a model of cooperation that captures the functional aspects of cooperation, the cross-level and cross-domain nature of cooperation, and the iterative processes that characterize changes in cooperation over time. This model, presented in Figure 1.1, begins with a set of questions individuals ask when deciding whether to cooperate. Specifically, individuals evaluate whether others can be trusted, whether they are valued by others, and whether others will provide various forms of support. To the extent that an individual answers "yes" to these questions, such a person will increase their level of cooperation with others, whereas answers

of “no” will result in a decrease of cooperation. At any given point in time, every human being is engaged in this sort of evaluation and is deciding whether and how to cooperate with various individuals and groups.

When many individuals are inclined toward a high level of cooperation, groups and organizations are more likely to have active, engaged, and mutually supportive members. In turn, individuals will have increased access to more and better resources compared to those who do not belong to cooperative groups. This increased access to resources will raise those individuals’ levels of happiness and satisfaction. In addition, groups will prove more robust and will be more effective at any given task or problem. When a society is characterized by a high level of cooperation, individuals will look out upon a social environment in which they can trust other people, depend upon groups and institutions to be receptive to individual needs, and in which resources and support are available to cope with problems that arise. Since this is an iterative process, individuals will respond to such an environment by increasing or maintaining their level of cooperation and will then enjoy the associated benefits. In contrast, when a society is characterized by exclusive, intolerant, and unresponsive groups, individuals will see a landscape in which cooperation is foolish at best and possibly dangerous. In this case, individuals are likely to become even less cooperative and suffer the associated consequences.

Individual Regulation of Cooperative Behavior

The cross-level and cross-domain perspective also supports the importance of cooperative processes, ancillary to cooperation itself, as a central component of understanding cooperation. Specifically, there is considerable evidence that individuals are often predisposed toward cooperation but actively monitor and regulate such behavior, taking account of circumstances that make cooperation a more or less appropriate action. Such active regulation of cooperative behavior is supported by a wide range of research from many different areas within the social sciences, including psychology, political science, sociology, and organizational behavior. Individual cooperation in groups (e.g., the extent to which individuals invest energy in a collective effort, willingness to abide by group decisions) is highly responsive to whether or not group processes are inclusive, just, and respectful of individual needs (Hibbing & Alford, 2004; Hibbing & Theiss-Morse, this volume; Tyler & Blader, 2003; Tyler & Lind, 1992). Even individuals who are strongly predisposed toward cooperative behavior tend to abandon cooperation when another person fails to reciprocate or when trust is breached (Van Lange, 1999; Van Lange, 2004). Cooperative, prosocial behaviors within teams, organizations, and societies are dependent upon the level of trust experienced within such groups (Greenberg, 1986; Peterson & Behfar, 2003; Rahn et al., 2003; Simons & Peterson, 2000). Similarly, negotiators regulate cooperative and competitive bargaining tactics depending upon how cooperative or competitive the other party is expected to be

(O'Connor & Tinsley, 2005; Tinsley, O'Connor, & Sullivan, 2002). Evolutionary models of human cognitive capacities predict that the ability to adjust cooperative behaviors to the situation is highly adaptive and functional (Orbell, Morikawa, Hartwig, Hanley, & Allen, 2004).

Taken as a whole, these lines of research suggest that people want to work together toward common goals, pool their resources and knowledge, and function as part of a larger community of other individuals with shared concerns. This tendency is a fortunate one, it would seem, as the viability and robustness of groups depend heavily upon such cooperation among individuals. However, when cooperation is unsafe, individuals tend to cease cooperating and working toward group goals and promoting collective well-being—which, although self-protective, also results in a lack of group resources, knowledge, and other forms of support. In other words, although failing to cooperate may help the individual under certain circumstances, a failure to cooperate can undermine the viability and functioning of groups and organizations, which may in turn often prove harmful to individuals. Alternatively, continuing to cooperate in the face of mistrust and deception represents one example of a situation in which cooperation is detrimental to individual well-being. In other words, a failure to actively regulate cooperation may cause an individual to be taken advantage of by others.

Beyond the Individual: Is Cooperation an Emergent or Aggregated Phenomenon?

One key question that arises when considering groups such as work teams, organizations, neighborhoods, and societies is whether cooperative behaviors at such levels of analysis are primarily the aggregated behaviors of individual group members or whether group-level cooperation also reflects emergent properties that cannot be reduced to individual behaviors. This question is actually quite profound from the standpoint of synthesizing a broad conceptual model of cooperation. If group-level cooperation is simply aggregated individual behavior, then research on groups can be understood and conceptualized as simply an extension of research on individuals applied to various social situations, such as work teams and political processes. As a result, it would be possible to predict what will happen to groups by knowing what is happening to individuals (e.g., whether trust in government is increasing or declining, the extent to which individuals are satisfied with life, etc.). However, if group-level cooperation reflects emergent properties, then research on groups, although not independent of individual-level phenomena, can be understood as exploring phenomena and processes that may be qualitatively different from those observed at the individual level of analysis. Further, emergent properties of groups would make it impossible to predict what will happen to groups even with a highly precise and sophisticated understanding of individuals.

To illustrate the importance of emergent properties, consider the following

hypothetical scenario. Within a society, survey research has documented a small, consistent, linear decline in trust among individuals. When asked to indicate their level of trust in government institutions and corporations individuals have been reporting slightly lower levels each year for the past two decades. If group-level phenomena are simply aggregated phenomena, then we would predict that groups of various sizes within this society would experience a small, consistent, linear decline in cohesiveness, engagement, and effectiveness as individual group members reduce their level of cooperation. On the other hand, emergent properties would render group behavior fundamentally unpredictable based on knowledge of the decline in trust. For example, it is possible that group-level behavior would, in fact exhibit a slow, steady change until an unforeseen “tipping point” is reached, at which point group behavior may suddenly change exponentially and quite rapidly, with some groups becoming vastly more cohesive and active and others disintegrating. The reason for such a discontinuity in predicting group-level behavior from individual-level phenomena would be the operation of cooperative processes that are unique to groups and can only be observed by studying groups.

We argue, based on the available evidence, that cooperation at the group-level does reflect emergent properties. For example, the level of general social trust (i.e., the tendency to trust other people) within a society is heavily influenced by social-contextual factors and cannot be accounted for by aggregating individual experiences (Rahn, et al., 2003). The available evidence, however, is insufficient to detail exactly which properties are emergent versus aggregate or how such emergent properties arise. We propose that this is an important area for future research which concerns fundamental processes underlying group functioning.

Overview of Chapters

Because we contend that research from across the social sciences is converging on cooperation as a key factor in human functioning, we invited authors from various disciplines, including psychology, political science, organizational behavior, and sociology to contribute chapters. To further facilitate the integration of such diverse research, illustrate the multi-disciplinary nature of the convergence, and to specifically link different streams of research that reflect similar findings, we grouped authors into sections (each with two or three authors) according to underlying themes and findings, with the authors in each section approaching the subject matter of that section from a different disciplinary perspective. Taken as a whole, these eighteen chapters provide a truly comprehensive evaluation of the science of cooperation.

The first pair of chapters answers the question “What is it about people that leads them to cooperate?” A chapter by Paul Van Lange on individual differences in prosocial behavior and a chapter by James Hanley, Jason Hartwig, John Orbell, and Tomonori Morikawa, on evolutionary psychology document some of the more

distal antecedents to cooperative behavior. The authors of both chapters argue that cooperative behaviors have tremendous functional value for individuals and groups. Their research describes some of the important processes underlying cooperation (and non-cooperation) and provides an understanding of why people are particularly sensitive to breaches of trust and being manipulated by others.

Next, a set of three chapters answers the question “What are the developmental precursors of cooperation and conflict?” A chapter by Nancy Eisenberg and Natalie Eggum on the development of prosocial behavior, a chapter by Michael Milburn and Jonathan Liss on the affective roots of cooperation, and a chapter by Kristen Monroe and Alexis Etow on altruism each illustrate the ways in which cognitive and affective factors importantly shape individuals’ willingness to engage in cooperative, prosocial behaviors. This work also identifies key factors that may cause individuals to adopt a non-cooperative orientation. Together, this research shows how developmental processes play a key role in cooperative behaviors. It also documents important implications for social behavior, including the extent to which individuals offer help and support to others, and for political attitudes.

A third section answers the question “How and why do people cooperate within their group?” A chapter by Tom Tyler on group procedures and a chapter by John Hibbing and Elizabeth Theiss-Morse on group decision making explore the processes through which groups and those in positions of authority can facilitate or undermine cooperation on the part of group members. This research has important implications for understanding the conditions under which individuals are willing to invest personal resources in a group and to accept group decisions (even if the decision is costly to the self) as opposed to the conditions under which individuals may resist accepting such decisions. These authors also explore some of the individual cognitive processes that mediate the association between group processes and individuals’ willingness to cooperate, which touches on certain aspects of the process of cooperation itself. Further, they delineate some of the key aspects of cooperative processes, such as critical factors that may cause someone to abruptly cease cooperating or that may enhance cooperation.

A fourth section answers the question “What conditions promote or impede cooperation between diverse groups?” A chapter by John Dovidio, Samuel Gaertner, and Victoria Esses on intergroup cooperation and a chapter by Eric Oliver and Shang Ha on relations between racial and ethnic groups identify critical aspects of intergroup relations and address the difficult and common problem of intergroup prejudice and conflict. From the perspective of cooperation, this problem reflects not only a situation in which individuals and groups actively resist cooperation, but they may also act in ways to harm members of an out-group. These authors have discovered very powerful forces acting on individuals and communities that can either exacerbate intergroup prejudice or alleviate such prejudice and promote intergroup cooperation. This research, although focused on antecedents to cooperation, also shows some important cross-level connections between social-contextual factors and individual cognitions that mediate cooperative behaviors.

A fifth section answers the question “What are the causes and consequences of cooperation and conflict in the workplace?” A chapter by Sarah Ronson and Randall Peterson on cooperation in work groups, a chapter by Amy Colbert, Joyce Bono, and Radostina Purvanova on leadership, and a chapter by Edward Greenberg on spillover effects from the workplace each discuss the importance of the workplace as both a key antecedent to cooperation and a key beneficiary of cooperative behaviors. Taken together, these lines of research show how organizational factors, such as group decision-making processes and leadership, can promote cooperative behaviors on the part of individual employees.

A sixth section answers the question “How does cooperation promote the health of individuals and communities?” A chapter by Jane Piliavin on volunteering and a chapter by Wendy Rahn on trust and political participation discuss powerful connections between cooperative processes and the well-being and functioning of individuals and communities. This research suggests some important antecedents to cooperative behaviors and processes through which such behaviors influence individual and community well-being. Jane Piliavin’s research explores this question in terms of consequences for the individual whereas Wendy Rahn’s work explores consequences for social and political functioning.

A seventh section answers the question “What is the role of cooperation in negotiation and conflict resolution?” A chapter by Kathleen O’Connor on negotiation and a chapter by Pat Regan on armed conflict each discuss how cooperative processes are central to conflict resolution ranging from negotiating business deals to bringing a halt to military conflicts and civil wars. This work informs a greater understanding of both cooperative processes and the central importance of such processes in managing and solving conflict.

A final pair of chapters addresses the question “How does cooperation promote the well-being and happiness of individuals and nations?” A chapter by Benjamin Radcliff on politics and happiness and a chapter by William Tov and Ed Diener on subjective well-being across nations each documents the important role of cooperative processes, at multiple levels of analysis, in promoting human happiness as well as the reciprocal relationship between happiness and individual and group-level functioning. When individuals and governments behave in ways aimed at promoting collective goals and ensuring collective well-being, individuals and nations are generally happy, satisfied with life, and achieve high levels of functioning.

Taken together, these eighteen chapters illustrate a wide range of social and political phenomena. We argue here that the research presented in each chapter illuminates an important component of a broad scientific understanding of cooperation and cooperative processes. We further delineate and describe key components of this broad understanding in the final chapter of the book. The final chapter revisits the scientific contributions of each of the previous eighteen chapters and provides added integration of these contributions as well as directions for future research.

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