

Group Behavior

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Prologue

Individual choices, central to human behavior, have been studied in great detail. But to make sense of world history, it is also necessary to understand group behavior. In this essay, I explore some of the basic principles of human group formation, activity, and problem-solving. I rely on the work of [Lars Udehn](#) to ask why most social analysis focuses only on individuals; even more, I rely on philosopher [Raimo Tuomela](#) for insights on how groups arise and function.

Related Essays: For details on two specific types of group behavior, see the following essays on my website:

- “Priorities in Today’s Institutions,” which is part of my collection of work on [social institutions](#)
- “Networks of Human Contact,” part of my collection of work on the [evolution of the human system](#)

Essay

The Discourse of Groups and Individuals

The discourse of groups and Individuals is too often narrowed to a choice in the ongoing debate about whether human behavior is dominated by individual motivation or group allegiance. To become realistic, this discourse needs to be broadened to include the many practical and theoretical frames for studying individuals and groups. Thus, even in a world dominated by individualistic philosophy, many people think of their personal networks as practical ways to connect the individuals in their lives. The same people extend their network thinking to characterize their links to groups, such as families and friends. A different way to think of groups is in terms of social institutions, which are organizations operated by individuals in cooperation with each other. Institutions are dense and productive groups, highly important for today’s society, yet understanding institutions requires attention to the individuals who do the work of institutions, with further attention to the various networks to which every institution is connected.

This essay, in the methodological section of my essays, addresses the most basic questions on groups and individuals but also points toward the wide range of possible issues and frameworks for study of groups and individuals. My essay on social institutions, in the section of my essays on small-scale social structures, provides detailed description of several institutions with a common typology. My essay on networks, in the section of my essays on large-scale social change, describes several types and scales of networks, including the Human System, the largest-scale network in existence.

The numerous levels of group behavior among humans can lead to confusion. Here I characterize these levels as: *crowds* (unstructured groups), *networks* (informally structured groups), and *institutions* (formal groups). In comparing institutions to networks, one sees that institutions are consciously formed organizations with some permanence, intended to perform specific tasks through collaborative action; networks can be informal links among individuals, not organized through any formal agreement, though they may nevertheless be influential in behavior.

The discourse of groups and individuals has persisted for several centuries; only recently has it begun to clarify new issues. Thomas Hobbes and John Locke, followed by Jean-Jacques Rousseau, Jeremy Bentham, and John Stuart

Mill, treated group behavior as the result of individual agreement to a social contract. Arthur de Gobineau, a French aristocrat, gained wide attention for the mixture of individualistic and group behavior portrayed in his white-supremacist history of races and civilizations acting out their collective destinies. The years after World War II, with their heavy concentration on institutions for social welfare, brought growing interest in analysis of group behavior. In a contrary trend in the late twentieth century, rational choice theory arose to argue that group behavior can be explained as the combination of many individual preferences in various arenas of life. In this framework, biologists and economists voiced fierce critiques of group-behavior theories. Defenders of the logic of group behavior fought back energetically but with less specificity. In contrast to these pitched academic battles, it is my hope that the tripartite framework that I present here will enable the reader to join in a comprehensive *discourse on groups and individuals*. That is, my three essays link this essay's broad overview of groups and individuals, an essay emphasizing group-based institutions at the local level, and an essay addressing networks at multiple levels.

Individual Behavior

The dominant approach in biological and social disciplines has been to focus on individual behavior in itself, and to assume that group behavior can be explained in terms of individual actions of members of any group. Using individual behavior to explain group behavior is defined as a reductionist approach: such use of basic theory to explain complex phenomena has been applied in biological sciences and among the social sciences in sociology, economics, and psychology. Within biology, the field of population genetics traces the alleles of genes (variations of a given gene) among members of a population. Populations (including sub-populations) are accumulations of individuals. Population behavior is seen as arising from the dynamics and accumulations of individual behavior.

The principal path for explaining group behavior through the analysis of individuals has been based on the logic of *inclusive fitness*, arising out of population genetics. That is, the offspring of a parent share much of the same genome and thus have a special relationship in passing on their heritage. This analysis led to arguments that, under certain circumstances, interactions among individuals could lead to genetic expansion of traits of reciprocity, collaboration, and altruism that could affect whole populations. An extension of this reasoning developed the theory of “dual inheritance” and the field of cultural evolution, in which a combination of brain-centered learning and gene-centered evolution brought greater levels of cooperation among groups of humans.

A well-known application of individual-level logic arises from game theory and takes the form of the Prisoner's Dilemma game. The game consists of two players. They are individual agents who pursue their own self-interest without the direction of an authority: each of them is unaware of and does not consider the totality of benefits to the two players. Payoffs are set and agents cannot communicate with or influence each other. In turn, each agent selects a move—either *cooperate* or *defect*—aware of the payoff they will receive. Irrespective of the opponent's choice, *defect* gives a higher payoff than *cooperate*. Yet both would be better off if each chooses to *cooperate*.

Group Behavior

Only recently has there been a breakthrough in demonstrating that group behavior—among those who have chosen to act as a group—has clearly distinctive characteristics and cannot simply be reduced to individual behavior. The scholarly world is heading toward a situation in which the frameworks of both individual and group behavior are recognized. The task for the future is thus for researchers to become clear on the distinctive characteristics of individual and group behavior for humans and to learn more of the interplay of humans acting in individual mode and group more.

Different approaches to group behavior have arisen and declined in the arenas of both biological and social analysis. In the biological literature, there have been arguments for biological evolution in which groups of organisms are the unit of evolution; there have been arguments for systematic social change at the macro-level or phenotypical level of societies for which of mechanism of change remained unspecified. Darwin himself considered

the possibility that humans might have been able to undergo group biological evolution but backed away from the idea. Then in 1962, when biologist V. Wynne-Edwards sought to show that group-based biological evolution was feasible, the logic of population genetics was applied with resounding effect to argue that group-based evolution would almost always devolve into evolution of individual organisms.¹ Since then, the attempts to explain group behavior in biology have mostly focused on modeling groups through individual behavior. Still, there continue to be arguments in support of the existence of group evolution, notably in viruses. A key test case has been that of the myxoma virus. In an attempt to eliminate the huge population of feral rabbits in Australia, the myxoma virus was introduced in 1950. This was a virus that had been isolated in Europe and was known to be lethal to rabbits. After its introduction through mosquitoes, the rabbit population fell by 99%, but then gradually grew. David Sloan Wilson and Elliott Sober, among others, argued that the recovery of the rabbit population responded to an emergent process of group evolution among the myxoma viruses, which were able to survive by becoming less virulent to their rabbit hosts. The debate has not ended.²

In the discipline of psychology, the field of social psychology is generally portrayed as the study of individual behavior in social context. Psychologist Donald T. Campbell, however, chose to link individual and group behavior. He coined the notion of “entativity” to refer to the notion that individuals conceived of some social groups, such as family units, as having substantial reality.³ In a project that gained more attention, Albert Bandura developed the notion of social learning, in which individual learning, stored in the brain, could be passed from generation to generation, eventually growing in social significance. This approach was adopted by ecologists Peter J. Richerson and Robert Boyd, who combined it with the logic of inclusive fitness to create a “dual heritage” explanation of changes at genetic and brain-record levels.⁴

A major breakthrough in theorization of group behavior among conscious humans came in the field of philosophy with the work of John Searle and Raimo Tuomela, also drawing on Michael Bacharach in economics.⁵ The breakthrough was the identification of “collective intentionality” as the additional factor that makes possible a distinctive sort of group behavior. In this view, group behavior is defined in collections of individuals and patterns of their behavior, which may differ according to whether the individuals recognize each other, respond to each other, share common intentions. Human group behavior relies on “collective intentionality,” in which individuals agree and determine a joint intention (collectively), of which a we-intention is an individual dimension. Tuomela, expanding upon Bacharach’s work on group games, developed a demonstration of the impossibility of reducing group behavior to individual behavior. In the illustration of the principle through the Hi-Lo game, the two participating agents are members of a team. They communicate before but not during the game. Each agent selects a label, A or B, aware of the full payoff structure of the game: the agents are aware of their individual payoff and they are also alert to the total payoff for both players. To maximize the payoff, each player wants the result to be that they both choose the same label. Playing as a team, each agent can select the option that is best for the team.

¹ Vero Copner Wynne-Edwards, *Animal Dispersion in Relation to Social Behavior* (London: Oliver & Boyd, 1962).

² Robert A. Wilson, “Test cases, Resolvability, and Group Selection: A Critical Examination of the Myxoma Case,” *Philosophy of Science* 71 (2004): 380 – 401.

³ Donald T. Campbell, “Common fate, similarity, and other indices of the status of aggregates of persons as social entities,” *Behavioural Science*, 3, 14–25.

⁴ Robert Boyd and Peter J. Richerson, *The Origin and Evolution of Culture* (New York: Oxford University Press, 2005).

⁵ Raimo Tuomela, *Social Ontology: Collective Intentionality and Group Agents* (Oxford: Oxford University Press, 2013), 179–213.

Institutions and Networks as Types of Groups

The definition of an institution, when based on Tuomela's vision of collective intentionality, relies especially on the terms of agreement among members of the institution, emphasizing their common devotion to a task and on working together to achieve it—it does not refer to spatial relationships among members of the institution. The definition of a social network, as given by McLean, emphasizes the nodes within the network, the edges linking nodes to each other, and the spatial relationships among nodes and edges—it does not specify agreements among the nodes, nor does it specify whether the nodes are individuals or groups.⁶ Thus, any social network could be an institution if its nodes were individuals in a relationship of collective intentionality, while any institution could be a network if its members were defined as nodes who were in a spatial relationship consistent with network edges. Further, social networks could be seen as hierarchical, and could therefore be made consistent with hierarchical institutions. In addition, institutions, even with minimal description of their spatial characteristics, can be treated as nodes in networks of commerce, political influence, or cultural exchange. For these reasons, social analysis that accounts at once for institutions and networks has the potential for adding great specificity to the description of social phenomena.

Designing an institution

The notion of collective intentionality permits the identification of various types of human groups. Participation in group-level cooperation does not eliminate individual-level cooperation: the two interact with each other and with other factors. Groups may take the form of an I-group or a we-group. An I-group is a population in which each member acts on individual motivations and initiative—it is the same as the definition of a group within individual-level populations. A we-group is a group of members unified and bounded by their collective intentionality, by which is meant their shared objective recognition of their common interest, and agreement to act for the interest of a group. The alternative group situations thus include at least three categories: individuals in I-mode, who happen to share the same goals (implicit groups); individuals in we-mode, with collective commitment acting as a group (explicit groups); and groups that are dominantly organized by collective intentionality, but within which there are individuals who form implicit groups in I-mode (complex groups). . . .

Interactions of Groups and Individuals

Individuals and groups commonly overlap. Consider a we-group of individuals who are mostly pursuing common objectives: some individuals within the group might choose to focus instead on their own individual objectives, performing their tasks somewhat differently. The result would therefore modify or diminish the effectiveness of the institution. If there were enough such independently minded individuals within a we-group, they could be seen as an I-group within the boundaries of the we-group. Details of these variations could be pursued—the point here is to emphasize the logical consequences that will arise from adding explicit theorization of group behavior to the common vague references to the existence of human groups. The types of mixes of groups and individuals are doubtless numerous and influential.

⁶ Paul McLean, *Culture in Networks* (Cambridge: Polity Press, 2017).

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INSPIRATION FOR THIS ESSAY:

Udehn, *Methodological Individualism*

Lars Udehn, *Methodological Individualism: Background, History, and Meaning* (London: Routledge, 2001), loc. 126, 237–251.

There has been in the history of social thought a constant battle over the true nature of society and about the best way to understand and explain it. A major divide goes between those who see society as an aggregate, collection, or complex of individuals and those who see society as some kind of ordered whole and/or unitary collective. The former try to explain social phenomena in terms of individuals and their interaction, while the latter maintain that this is not possible without essential reference to the social wholes of which they are part and/or the collectives to which they belong. The opposition between these conceptions of society was inherited by the social sciences and divided them into two conflicting camps. With the emergence of the social sciences, however, the metaphysical issue was increasingly turned into a methodological issue. As we shall see, this does not mean that the metaphysical issue disappeared, only that it receded into the background.

There have been many names used to designate the two camps and their respective doctrines. In the twentieth century two (or three) names have been selected as the most common. The battle has been increasingly waged in terms of *methodological individualism*, and its transmutations. Versus *methodological collectivism and/or holism*. . . .

The individualist theory of society goes back, as far as we know, to Greek Antiquity, where it was advanced, in particular, by the Sophists and by the Epicureans. The former invented the theory of the social contract and saw all social institutions as man-made conventions. The latter adopted the theory of the social contract and added to it an atomist metaphysics and a hedonist psychology.

The individualist theory of society disappeared with Antiquity and was replaced by a more holistic and collectivist view of society in the Middle Ages. It reappeared in the Renaissance and culminated with the Enlightenment. The most important figures are Thomas Hobbes (1588–1679) and John Locke (1632–1704), at least from an individualist point of view. Of these, I believe Hobbes is the most important is a representative of a theoretical, and perhaps also methodological, individualism, while Locke is more important as a representative of political individualism.

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INSPIRATION FOR THIS ESSAY:

Raimo Tuomela, *Social Ontology*

Raimo Tuomela, *Social Ontology: Collective Intentionality and Group Agents* (Oxford: Oxford University Press, 2013), 5, 13.

This book presents an analytic and conceptual theory of how the social world is constructed. The theory presents the basic building blocks of society with an emphasis on group-based notions. My account is accordingly based on a group-level description of the social world, which in many cases can be conceptualized in terms of the we-mode approach on the member level. The we-mode framework forms an indispensable conceptual framework for the study of social life. It consists of interconnected concepts that, according to the arguments of this book, are not in general reducible to I-mode concepts. Much of our social life consists in living in a group context where people often are guided “from above” by authorities (despite people’s attempts to reform society by locally democratizing it). An adequate description and explanation of social life accordingly requires that we-mode thinking and active covering large and hierarchical groups be included in one’s theorizing about the social world. The intuitive idea here is that the central agent often is a group, a “we” (expressing the speaker’s or thinker’s self-identification with a group). On the member level we have its members’ we-thinking and we’acting, that is, thinking and acting together as a “we” to promote the interests of “us.” The primary conceptual and justificatory direction in the we-mode is “top-down,” from group level to member level, whereas in the I-mode the primary conceptual and justificatory as well as ontological direction is “bottom-up,” from member level to group level. Thus an individual may act in a group context either in the we-mode or in the I-mode (including acting for the group in the “pro-group” I-mode), although some we-mode thinking and action is functionally needed for the stability and robustness of group life. . . . Note that a person can have a we-mode attitude with certain content but fail to have the same attitude in the I-mode.

This book does not advocate a political ideology or program, but is compatible with liberal communitarian views. . . . This is a view that arguably is needed for “saving the world” from various global threats (such as serious overpopulation, energy and food crisis, climate change, and so forth).