Boudon Reexamined

Nuts and Bolts for Contemporary Sociological Science

Gianluca Manzo (Ed.)

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Boudon Reexamined presents a selection of short essays by leading scholars from several generations who critically engage and enter into dialogue with the work of Raymond Boudon. Each chapter focuses on a specific topic from his extensive writings. Readers will follow this intellectual trajectory through analyses of early correspondence with Lazarsfeld and Merton, his typology of sociological styles, and his contributions to contemporary analytical sociology, including the notion of middle-range theory. In addition to already well-discussed aspects of Boudon's work, namely his understanding of methodological individualism and the theory of ordinary rationality, the book also explores less frequently discussed topics, including his early interest in formal modeling in sociology and his understanding of the link between interdependence structures and social change. Included in the following pages are new assessments of Boudon's well-known analyses of the inequality of educational opportunity and intergenerational social mobility, as well as his lesser-known substantive contributions to the study of relative deprivation and his early dialogue with game theory. The book also outlines Boudon's study of classical authors, especially Tocqueville, before two final chapters conclude by examining how Boudon's works can be used to teach sociology at the undergraduate and master's levels. Our hope is that *Boudon Reexamined* provides readers with a fresh assessment of his legacy – how his work can be applied to conduct theoretical and empirical research in contemporary sociology, as well as to promote high-quality scientific standards for new generations.

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Chapter 4

Generative Models, Action Theories, and Analytical Sociology

Peter Hedström

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The great books of the sociological tradition are either works of theory and epistemology or empirical studies structured by a profound theoretical or epistemological reflection. Émile Durkheim's first three books, *The Division of Labour in Society*, *The Rules of Sociological Method*, and *Suicide*, each fall into one of these three categories. This heritage represents an impressive growing legacy of authors and works that foster an understanding of social life through the formation of new concepts, models, and interpretations, thereby providing a pathway to deciphering the thickness and chaotic nature of human societies.

Gianluca Manzo (Ed.)

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TABLE OF CONTENTS

PART IV
RELATIVE DEPRIVATION, GAME THEORY AND SOCIAL INTERDEPENDENCY

PART V
METHODOLOGICAL INDIVIDUALISM AND RATIONALITY

PART VI
TRAINING THE NEW GENERATION

CHAPTER IV

GENERATIVE MODELS, ACTION THEORIES, AND ANALYTICAL SOCIOLOGY

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Jon Elster (e.g., 1989) repeatedly emphasized that the social sciences are essentially grappling with two core questions:

1. Why do individuals do what they do?
2. What do individuals collectively bring about when they do what they do?

These two questions are also at the core of analytical sociology, a sociological tradition that Raymond Boudon had a considerable influence upon (see Hedström and Swedberg 1998b; Hedström 2005). Boudon developed persuasive arguments regarding how we ought to go about answering these questions.

I believe Boudon's most distinctive contributions in this respect are the following:

1. His view that sociological explanations should be actor rather than factor-based.
2. His generative and mechanism-oriented view of explanations.
3. His view that individual reasons is the proper "rock bottom" for sociological explanations.

In this chapter, I address each of these points, and I am very much in line with Boudon as far as the first two points are concerned. Thereafter, I present some general reflections on how his work relates to current-day analytical sociology.

ACTORS AND FACTORS

In his 1974 book on education and inequality, Boudon used simulations to try to make sense of several "paradoxes" reported in the social mobility literature. He argued that an important distinction should be made between statistical and theoretical models, and that theoretical models are needed to explain the results of empirical analyses. In order to explain, Boudon argued, "we must go beyond the statistical relationships to explore the generative

mechanism responsible for them" (1976, p. 117), and further, to use Macy and Willer's (2002) apt expression, that actor-based rather than factor-based explanations are the proper way forward. As Boudon (1974) expressed it:

> To pursue this line [of research] requires that men not be considered as ... a set of juxtaposed variables, but that they be seen as actors, able and willing to take decisions depending on their resources and on the context.

The centrality assigned to actors leads us over to the second, and closely related area concerning generative models and explanations that seek to show how the activities of actors bring about or generate the macro-outcome to be explained.

GENERATIVE MODELS AND EXPLANATIONS

Boudon succinctly summarized his Weberian-inspired explanatory strategy with the following expression:

$$M = \mathrm{M}(m[S(M')]).$$

What he meant was that a social phenomenon, *M*, should be explained as a function, M, of actions, *m*. These actions, in turn, should be explained with reference to the social situation, *S*, in which the actions take place, and these social situations, in turn, should be explained with reference to yet another social phenomena, *M'*, and the actions that brought them about (see Boudon 1986). This perspective is similar to Coleman's view as expressed in his so-called micro-macro graph (Coleman 1986). The similarities between Boudon's and Coleman's approaches are evident in the following quote where Coleman lays out the dynamic recursive nature of his approach:

> Structure at one time (macro-level) generates the conditions which together with existing interests shape the actions of the actors (micro-level) that jointly produce outcomes which modify the structure of a later time (macro-level) which generates conditions that again (through constraints and incentives) shape action (micro-level) that jointly produce outcomes (macro-level) and so on (cited from Manzo 2014, p. 19).

Boudon's emphasis on the social situation (*S*) as the mediator between macro and micro phenomena also highlights the close alignment between his approach and Popper's concept of situational analysis (see Hedström, Swedberg, and Udehn 1998).

The micro-macro link was thus of fundamental importance to Boudon. He argued that proper explanations of social outcomes must demonstrate how

these outcomes are generated by the actions of relevant individuals. To illustrate what he meant with a generating model, he referred to Schelling's (1971) segregation model as an example, and he described the type of theoretical model he envisioned as follows:

> At a very general level, a generating theory can be typically described as a theory containing two logical core elements: (1) a description of the logic postulated to regulate the actions of the individuals observed ... and (2) a description of the social constraints within which the logic of individual actions develops (Boudon 1979, p. 60).

And he continued:

> In a generating model, individual actions are *aggregated*: the outcome of this aggregation depends on the individual logic of action or behavior ... and on the ... social context within which individuals act. (Boudon 1979, p. 62)

That is, to explain an aggregate outcome, a generating model is built that shows how actors, constrained and enabled by their social contexts, in interaction with one another generate the outcome to be explained.

Boudon also did pioneering work on how to classify and distinguish between different types of social processes and the generative models that produce them (c.f., Boudon 1979, 1982). He emphasized the significance of interdependent systems and feedback loops, highlighting the need to carefully consider where such feedback loops originate and where they end – whether within the system of interaction itself or in the broader social environment.

With this generative view of explanations, Boudon placed himself in a tradition that includes the likes of James Coleman and Aage Sørensen, and many present-day analytical sociologists.[1] Coleman described one important aspect of this tradition as follows:

> The general approach will be (1) to begin with the idea of a process, (2) to attempt to lay out the mathematical model that mirrors this process, and then (3) given particular kinds of data ... estimating parameters of the process. In general the goal will not be one of testing hypotheses but rather one of estimating parameters in a mathematical model designed to mirror a substantive process (Coleman 1981, p. 5).

Similarly, Aage Sørensen emphasized that adequate explanations must specify plausible models of social processes through which outcomes are generated. He is best known for his *vacancy competition model* (e.g., Sørensen

1 Possibly one should refer to this tradition as "the Coleman, Sørensen, Fararo tradition" (see Manzo 2024).

1977), a differential equation model that links gains in labor market attainment to individuals' resources and mobility opportunities, which are themselves shaped by the rate at which vacancies are created.

In the Coleman-Sørensen tradition, empirical data is not primarily used for testing hypotheses but for developing realistic *substantive* models of the processes believed to have brought about the outcome to be explained, and this is done by empirically estimating the parameters of the substantive model.

As the reference to Schelling's segregation model suggests, the generating models Boudon had in mind were not differential equation models like those of Coleman and Sørensen but were more in line with the type of agent-based models (e.g., Macy and Willer 2002, Manzo 2022) commonly used today. However, the role of empirical data remains the same: it serves as a means of empirically calibrating a substantive model rather than performing hypothesis tests, which are the primary focus of many statistically oriented sociologists. That said, hypothesis tests and traditional statistical models can still be valuable for estimating the parameters of substantive models. Once these parameter values are arrived at, the model can be used for counterfactual what-if analysis. Further, if the substantive model is properly calibrated, these counterfactual analyses can provide important insights into what is likely to happen if we were to make different kinds of interventions in the real world.

In the 1960s and 1970s, Boudon showed significant interest in formal theorizing, emphasizing the explanatory importance of building models that demonstrate how individuals, through their interactions, generate collective outcomes (e.g., Boudon 1979). However, like Coleman, he did not provide concrete guidance on how such micro-macro modeling should be done in practice. In his later work, Boudon's focus shifted toward more discursive and less formal approaches, concentrating on conceptualizing action rather than exploring how generative models could link micro and macro phenomena (see also Manzo 2012).

ARE REASONS THE END OF THE STORY?

As mentioned earlier, a core component of Boudon's type of generative model is a model of "the logic postulated to regulate the actions of the individuals observed" (Boudon 1979, p. 60). In numerous publications, he elaborated on such models with the aim of addressing what he perceived to be serious weaknesses of traditional rational-choice theories.

Boudon positioned himself firmly within the rational-choice tradition but argued for a broader conception of rationality. He contended that "to get a satisfactory theory of rationality, one has to accept the idea that rationality

is not exclusively instrumental: it also has an axiological dimension and a cognitive one. ... The reasons motivating an actor can be strong without belonging to the instrumental species" (Boudon 1998, pp. 199-200). In other words, Boudon believed that our models of the actors should assume that they act rationally in the sense of having good reasons for their actions, even if those reasons reflect what Elster (1989) referred to as irrational beliefs.

In my view, Boudon's attempt to develop a new type of action theory was not as successful as other parts of his work. Nevertheless, the sheer volume of his writings on this topic suggests that he considered it highly significant. One way to make sense of his persistent efforts to develop a reason-based action theory is his apparent belief that reason-based explanations represent a kind of rock-bottom explanation for sociology. Echoing Hollis's (1977) claim that "rational action is its own explanation," Boudon argued that "when a sociological phenomenon is made the outcome of individual reasons, one does not need to ask further questions." The explanation is "final" (Boudon 1998, p. 177).

Boudon further argued that traditional rational-choice theory was inadequate because it struggled to account for beliefs and desires and relied on what he saw as ad hoc black boxes, such as risk aversion and cognitive biases. In response, he set out to develop an alternative model, free from such black boxes, which he called the *Cognitivist Model*. I will not delve into the details of Boudon's cognitivist model here, as it is discussed in other chapters of this book. Instead, I focus on his thesis regarding the "rock-bottom" (Watkins 1957) nature of reason-based explanations, a position I find difficult to accept.

I can see some merit in Boudon's view if our goal is to explain why a specific individual did *X*. If that person tells us, "I did *X* because of reason *R*," there is little reason to doubt this explanation – provided *R* is a plausible motivation for doing *X* and there is no evidence suggesting the individual is being deceptive.

I find Boudon's position much harder to accept in the following social-science scenario. Imagine a group of men asked to make hypothetical choices about lifelong partners. All participants offered well-articulated reasons for their choices. However, it turns out that higher educated and less educated men systematically differed from one another: all the higher educated men based their choices on reason *R1*, while all the less educated men based theirs on reason *R2*. While knowing these reasons can be informative, they do not constitute a rock-bottom explanation. The observed difference in reasons poses a puzzle that demands further scrutiny, directly opposing Boudon's principle that "when a sociological phenomenon is made the outcome of individual reasons, one does not need to ask further questions."

Opportunity-based differences present similar challenges to Boudon's thesis. Continuing with the same example, suppose there are not enough women in

the relevant geographical area for every low-educated man to find a partner. As a result, some of these men would live alone while others would have partners, even though they all shared the same reason, *R2*. Once again, while knowing the individuals' reasons can be informative, it does not constitute a rock-bottom explanation. The observed behavioral differences among the low-educated men would call for further investigation.

When such heterogeneities are present – which is the norm rather than the exception in the social sciences – Boudon's central thesis must be questioned. While knowing individuals' reasons can be valuable for developing social-science explanations, it is rarely sufficient. These examples suggest that contrary to Boudon's claim, reason-based explanations are rarely final in his sense of the term. It also follows that they do not hold the privileged status he ascribed to them.

THE FIRST AND THE SECOND-GENERATION ANALYTICAL SOCIOLOGISTS

Analytical sociology is committed to the principle that theories and explanations should be formulated in terms of the processes believed to have genuinely generated the phenomena of interest. This principle assigns a crucial role to individual behavior, as it is the driving force behind the social processes that produce social change.

As I suggested in Hedström (2005), the causal significance of individual actions becomes evident if we imagine a counterfactual scenario in which we can press a pause button that freezes all individuals, preventing them from acting further. All social processes then would come to an immediate halt. Therefore, our explanations must, in some way, reference individuals' behaviors – how they unfold over time and gradually bring about the macro-level outcomes to be explained. Boudon was in full agreement with this.

The specific ways in which individual activities, actions, or behaviors are incorporated into sociological explanations vary considerably. Social scientists differ in how deeply they believe the micro-level analysis must go to provide an acceptable explanation of a macro-outcome. While analytical sociologists agree that macro-explanations must be anchored in individual behavior, they disagree on whether this behavior itself requires further explanation and, if so, what form that explanation should take. For example, as discussed in the previous section, Boudon argued that once we have established the reasons why individuals act as they do, no further questions need to be asked – a position I find difficult to defend.

In Hedström (forthcoming), I discuss these questions in detail and highlight an important shift within the analytical sociology community. First-generation analytical sociologists focused heavily on *intra-individual mechanisms* – examining how different configurations of beliefs, desires, emotions, values, and cognitions explain individual behavior and, consequently, the social outcomes that arise from these behaviors.

This generation included prominent scholars such as Jon Elster, Diego Gambetta, and Boudon. Elster, for instance, argued that "to understand how people act and interact, we first have to understand how their minds work" (2007, p. 67). Much of his work explored mechanisms operating within the individual mind, such as the *sour-grapes mechanism* (Elster 1983), where an individual's desires adapt to her opportunities, and the *wishful-thinking mechanism*, where beliefs are shaped by what the individual wishes to be true. In Boudon's case, this intra-individual focus was particularly prominent in his later work on his cognitivist model of behavior.

My own work was also firmly rooted in the first-generation approach. In Hedström (2005), I argued that intentional explanations are crucial because they offer deep, intellectually satisfying accounts that make individual behavior understandable in the Weberian sense. I further maintained that explanations of macro-level phenomena must reference the reasons behind individuals' actions. The underlying premise was that explanations that do not incorporate individuals' mental states are incomplete and unsatisfactory.

Inspired by Elster's work, I based much of my analysis on what I called the *DBO theory* – *D* for desires, *B* for beliefs, and *O* for opportunities. The core idea was that desires and beliefs can be said to cause an action by providing reasons for it. Desires and beliefs have a motivational force that helps us understand and, in this sense, explain an action, while opportunities define the set of actions feasible for the actor. I argued that the proximate cause of an action is a specific constellation of desires, beliefs, and opportunities that makes the action appear reasonable. Elementary action mechanisms differ from one another depending on how desires, beliefs, opportunities, and actions interact.

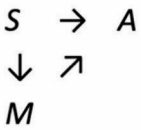
With second-generation analytical sociologists, we observe a shift "from processes within individuals to processes among individuals – that is, from psychology to sociology," to use Coleman's (1986a) expression. The theoretical and empirical focus is no longer on what happens *within* individuals' minds but on the processes that unfold *among* the individuals. Put differently, the focus is on what Schelling (1978) referred to as the "system of interaction" – the ways individuals interact and influence one another, the social processes that these interactions bring about, and the aggregate outcomes they collectively produce.

My thinking on these matters has evolved in a similar direction. I no longer endorse the view I advanced in Hedström (2005) that intentional explanations or other mental-state-centered explanations should form the foundation of the social sciences. As I discuss in detail in Hedström (forthcoming), this change in position is primarily driven by two key observations:

1. Reliable information on individuals' mental states at the moments when they are supposed to causally influence behavior is rarely, if ever, available.
2. Even if we knew an individual's relevant mental states, we would not necessarily know what the individual would do because individuals' do what they do for multiple different reasons.

These knowledge constraints are highly problematic if the ambition is to explain outcomes with reference to the actual processes that brought them about. Seeking to explain why individuals do what they do by referencing their mental states is particularly problematic for sociology, which examines large-scale social processes involving numerous heterogeneous individuals who interact and influence each other over extended periods. Identifying the reasons that motivated someone else to do what they did is challenging enough; doing so for hundreds or thousands of individuals is immensely difficult – likely an unattainable task.

Drawing on Hedström (2021), the situation can be described as follows, where *A* represents an individual's action, behavior, or behavioral disposition, *M* the individual's relevant mental states at the time of acting, and *S* the social characteristics of the individual and its social environment likely to influence both mental states and actions:



As noted above, the first-generation analytical sociologists primarily focused on the $M \rightarrow A$ part of this scheme. As with any other type of explanation, explaining an individual's actions with reference to certain mental states such as specific beliefs, desires, or emotions, can be correct or incorrect. The explanation is correct if it accurately identifies the mental states that truly motivated the individual's behavior, and it is incorrect if it refers to the wrong set of mental states. However, since we rarely, if ever, have access to the true *M* of individuals, and since *M* can vary both across individuals and over time for the same individual, the likelihood of constructing factually correct $M \rightarrow A$ explanations is slim indeed. The widespread practice of inventing mentalistic

narratives or models with little empirical foundation in the specific case at hand is not a solution since it contradicts one of the core principles of analytical sociology, that explanations must always reference the actual processes responsible for the outcomes being explained.[2]

If reliable information on M and the $M \rightarrow A$ link is unavailable, rather than inventing theoretical narratives to fill this gap, it is more prudent to follow insights from the literature on supervenience and multiple realizability and focus on higher-level difference-makers. These concepts, widely applied in the philosophy of mind to describe the relationship between mental and physical states (e.g., Fodor 1974, Kim 1993, Sawyer 2001), offer a useful framework. A higher-level state Y is said to supervene on a set of lower-level states X if two conditions hold: (1) identity in X necessarily leads to identity in Y, and (2) identity in Y does not necessarily imply identity in X. This asymmetry exists because the higher-level state Y can be realized in multiple, potentially disjunctive lower-level ways. When this occurs, systematic relationships may be observed at the higher level that do not manifest themselves at the lower level.

Applied to our case, if the same behavior (A) can result from a wide range of different mental states (M), the absence of detailed information on M, while regrettable, becomes less significant from an explanatory perspective. This is because knowing an individual's M would offer only limited insight into what generates A. As Heath (2024) illustrates with the example of criminal behavior, while understanding the specific motives behind each crime may be desirable, if the $M \rightarrow A$ link is realized in highly disjunctive ways, "it may turn out that each crime is as unique as the criminal." In such cases, there would be a token M-based explanation for each specific act, but no general $M \rightarrow A$ pattern applicable to the group as a whole. Using Woodward's 2003) terminology, this implies that M is not an invariant difference-maker for A, indicating that the explanatory focus should shift to the $S \rightarrow A$ link, where more stable and generalizable patterns may be found.

In Hedström (2021), I used Schelling's (1971) classic segregation model to illustrate these points. Schelling demonstrated how small-scale interactions can escalate into unintended large-scale outcomes. What matters for the aggregate patterns emerging from the social processes he analyzed is *how* individuals

2 This should be qualified by saying that the statement about "actual processes" assumes that the purpose is to explain a real-world observation. If we instead are in the business of pure and abstract theory development, this restriction does not apply, but as soon as we are to use such abstract theories to explain real-world observations, the statement applies. In Hedström (forthcoming) I discuss in detail the need for clearly separating between the abstract and the concrete in order to avoid what Whitehead (1930) referred to as the fallacy of misplaced concreteness.

react to the behavior and properties of their neighbors – not *why* (in the mentalistic sense) they react as they do. The segregation dynamics remain the same regardless of the underlying reasons for the individuals' behavior. Some may leave their neighborhoods due to prejudice, for example, while others may like their neighbors but fear declining property values as the neighborhood composition changes. The crucial aspect driving the process is not what goes on in individuals' minds, however, but how they respond to their surroundings – whether they choose to stay or relocate. Thus, the social dynamics and the resulting aggregate outcome are determined by the details of the $S \rightarrow A$ link, not by the $M \rightarrow A$ link. It is properties of the social context and how individuals react to them, rather than their internal motivations, that are the crucial difference makers that shape the process.

The focus on higher-level difference-makers that characterizes Schelling's work, also is a defining characteristic of what I have termed second-generation analytical sociology. One example is Bearman et al.'s (2004) study of adolescent sexual and romantic networks. The context of their study was a high school in the United States, and the macro-outcome they sought to explain was the surprising discovery that the students' sexual and romantic network resembled a spanning tree. Through simulations, they concluded that the spanning-tree structure was most likely the result of boys avoiding relationships with their prior girlfriends' current boyfriends' prior girlfriends, and vice versa for the girls. There can be many different reasons why students avoid such relationships, and they may vary over time and between individuals. However, what matters for the aggregate outcome – the spanning-tree structure of the network – is *that* this avoidance exists, not *why*, in the psychological or mentalistic sense.

Another example is Arvidsson, Hedström, and Collet's (2021) study of gender segregation in labor markets. They show that network-based recruitment, contrary to conventional wisdom, can reduce rather than increase segregation through what they term the Trojan-horse mechanism. Analyzing detailed employment records from Stockholm, they found that when individuals leave organizations where they were in the minority, they were disproportionately likely to be followed by majority-group members from their original workplace. Much like the soldiers in the Trojan horse opening Troy's gates from within, an initially segregating move such as a woman moving from a male dominated to a female dominated workplace, can open the gate for subsequent desegregating moves of men following in her path. As in Schelling's and Bearman's analyses, the core difference-makers do not refer to what goes on within the minds of the individuals. Instead, the difference makers relate to the details of the $S \rightarrow A$ link. What matters for the collective outcome is *whether* individuals are disposed to follow in the network paths of others, and *whether*

the gender composition of the original workplace influences the gender of the followers; not the various psychological or mentalistic reasons for *why* that is the case.

Another example is Manzo et al.'s (2018) analysis of the diffusion of innovations in pottery across northwestern India and central Kenya. Their goal was to explain a macro-level outcome – specifically, the differences in diffusion curves among four ethnic sub-groups – by focusing on the actions and interactions of the potters. Their main finding revealed that differential motivations among individuals had a negligible effect. At the same time, the structure of the interaction network, particularly the configuration of strong and weak ties, played a major role. As with the other second-generation analyses discussed earlier, the key difference-makers for the outcome concern the details of the $S \rightarrow A$ rather than the $M \rightarrow A$ link.

In his book on complex contagions and the spread of behavior, Centola (2018) adopts an approach closely aligned with the one advocated here. He argues that while the collective facts we aim to explain are often well established, and we typically know a great deal about what individuals do, "what is not known is the dynamics. How do individuals interact to produce these collective phenomena?" (Centola 2018, p. 180). To address this, Centola develops a range of generative models – to use Boudon's term – that illustrate how different types of collective phenomena can emerge from individual interactions. Toward the end of the book, Centola reflects on the theoretical and methodological lessons derived from his analyses, and one key insight stands out: what drives the dynamics "is only that individuals are embedded in social networks that provide them with relevant sources of social reinforcement" (2018, p. 173), not whether individuals act rationally or are driven by specific reasons or emotions.

The explanations proposed by these second-generation scholars thus are not framed in terms of the mental states of the acting individuals because (1) reliable empirical data on individuals' mental states is rarely if ever available, and (2) many or perhaps even most social processes that sociologists are concerned with are not dependent upon motivational details but on the details of the $S \rightarrow A$ link. For these reasons, the primary focus is on the social situation of the individuals and the explanation typically takes the following dispositional form: If individuals of type *i* tend to do *A* when placed in a social situation of type *S*, then individuals of type *i* can be said to have a social disposition to do *A* in *S*, and *A* is explained by referring to this disposition. In other words, in the second generation there is a shift in focus from the $M \rightarrow A$ to the $S \rightarrow A$ link, and a corresponding move from intentional to dispositional types of explanations (see also Vredenburgh 2024 for an illuminating discussion of related matters).

These kinds of dispositional explanations are central to most middle-range theories in sociology and include key behavioral tendencies such as reciprocity, homophily, and social influence. Bourdieu's influential notion of *habitus* (e.g., 1990) is also dispositional in orientation. Although his writing can be difficult to interpret, *habitus* can, in the terminology of this chapter, be understood as a socially conditioned disposition to act or think in certain ways. Consequently, a *habitus*-based explanation of an individual's actions or thoughts refers to the relevant socially conditioned disposition. Bourdieu was primarily concerned with dispositions formed over the *longue durée* – giving rise to stable social patterns in taste and behavior. In contrast, most analytical sociologists focus on more immediate effects of social interactions and rapidly changing social environments, but the underlying explanatory logic remains similar.

CONCLUDING REMARKS

Boudon was a hugely important source of inspiration for many sociologists, not the least in Europe. In his early work, he showed a strong interest in formal theorizing and emphasized the explanatory importance of building generative models that demonstrate how groups of individuals, through their interactions, produce the collective outcomes to be explained. In his later work, he became more discursive, and he did not attempt to give his theories of action the formal structure necessary to integrate them into the type of generative models he had previously advocated.

In Hedström (2013), I suggested that an important task ahead of us was to bring together these two strands of Boudon's work – his type of generative explanatory modelling and his discursive approach to action theory. However, I am far less convinced today of the merits of doing so than I was a decade ago. Some scholars, such as Jon Elster, have remained deeply committed to the idea that an explanation of a macro-outcome is incomplete and wanting unless it intentionally explains why the involved individuals did what they did. Boudon held a similar position and argued firmly for the centrality of reason-based explanations: "when a sociological phenomenon is made the outcome of individual reasons, one does not need to ask further questions", the explanation is "final" (Boudon 1998, p. 177).

As noted above, there has been a shift in focus of analytical sociology from what occurs within individuals' minds to the processes that unfold among individuals. In relation to Boudon's work, this shift can be described as a movement away from the type of work represented by his cognitivist action model toward the type of work represented by his generative models.

Boudon's own trajectory, however, was in the opposite direction – a somewhat unfortunate development, in my view.

In this chapter, I have explained why I find this shift in focus from the mental to the social so important. While it certainly would be informative to know what individuals were thinking when they acted as they did, obtaining reliable information on this is both difficult and highly prone to error. We can, of course, speculate about what went on in their minds. However, it is highly unlikely that such speculations will provide a factually correct explanation of how the outcome to be explained was brought about – particularly when many individuals are involved, each potentially driven by a different reason.

The fact that we rarely know what goes on within individuals' minds is not always an explanatory handicap. This is because many social processes are not driven by motivational details. Instead, the crucial difference-makers lie in key aspects of the social environments in which the individuals are embedded. In this chapter, I have discussed important work that exemplifies this such as Schelling's analysis of segregation processes, Bearman, Moody, and Stovel's (2004) analysis of romantic networks, Manzo et al. (2018) analysis of diffusion processes, and Centola's (2018) work on how behavior spreads.

This shift in focus away from what occurs within individuals' minds also means that intentional explanations are no longer applicable. In this chapter, I have argued for a dispositional form of action explanation, grounded in empirically well-established behavioral tendencies such as reciprocity, homophily, and social influence. This approach should be coupled with the kind of generative models proposed by Boudon to address the macro-outcomes likely to emerge. This type of approach aligns well with the tradition of middle-range theorizing (Hedström and Udehn 2009) and plays to our strengths in terms of empirical data and methods of inquiry. Much work remains to refine the details of a dispositional explanatory framework, but the effort seems well justified. Following this approach would allow our empirical research to focus on the crucial difference-makers proposed by our theories and, in doing so, help bridge the gap between empirical research and theoretical development.

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This remarkably well-structured volume accomplishes two feats at once. It offers a critical engagement with the multiple facets and contributions of Raymond Boudon's sociological oeuvre, for example: the modeling of relative deprivation, the generative approach to social stratification, the plea for methodological individualism, the analysis of unintended consequences and social change, the epistemology of sociological investigations, and the reflection on rationality and belief formation. Through this critical engagement – here is the second feat – this volume tackles substantive and methodological issues central to contemporary developments in the discipline of sociology, whether the focus is on formal models, simulation work, counterfactual reasoning, social mobility and its measurements, the significance of Rational Choice, or our understanding of processual dynamics.

Ivan Ermakoff, Professor of Sociology,
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Without indulging in praise, this collective volume – bringing together 18 substantial chapters – aims to shed light on the enduring legacy of Raymond Boudon's sociology. It addresses a notable gap: the lack of a detailed, multifaceted examination of the work of one of the foremost figures in both French and international sociology. The reader will find not only an assessment of Boudon's intellectual contributions but also a critical appraisal of their limitations and the avenues they open for further research into contemporary issues. The book will appeal both to specialists familiar with the evolution of Boudon's thought over time and to those wishing to discover it, explore it in greater depth, or draw upon it for teaching purposes.

Gérald Gaglio, Professor of Sociology,
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This book is a splendid tribute to Raymond Boudon, one of the most important sociologists of the second half of the 20th century. The contributions, in their appreciative and critical aspects alike, clearly bring out the intellectual depth and challenging nature of Boudon's work and its continuing relevance in the study of modern societies.

John H. Goldthorpe, Emeritus Fellow,
Nuffield College, University of Oxford

This collection of papers, expertly curated by Gianluca Manzo, is as wide-ranging and thought-provoking as Raymond Boudon himself. It is sure to stimulate interest in a now-sometimes-forgotten giant of French sociology.

Neil Gross, Charles A. Dana Professor of Sociology,
Colby College (Maine)

This Memorial Festschrift honors Raymond Boudon (1934–2013) by considering his contributions to conceptualization, theory, and empirics, as well as their associated methods, across foundational topical domains in sociology and guided by expert commentators. It is not only a superb assessment, and its value will grow in three main ways. First, like most Festschrifts, it provides a portrait of the growth and trajectory of Boudon's ideas, embedded in his relations with other scholars, both teachers, peers, and students. This portrait will grow over time. Second, as the historian David Knowles wrote about the *quaestiones quodlibetales* of the medieval university (especially the University of Paris) and the debates held during Advent and Lent when anyone could ask any question of any master, Festschrift discussions are a valuable index to what is "in the air" – in this case both when Boudon was working and now. Third, Boudon believed in the promise of mathematics, and it will be possible to trace over time the progress of the $X -> Y$ relations in the book, as they travel from general functions to specific functions.

Guillermina Jasso, Professor of Sociology,
Silver Professor of Arts and Science, New York University

This book is not a hagiography. Unusually, its title truly reflects its content. Twenty-two sociologists from different countries and different generations take a fresh look at the work of Raymond Boudon. In keeping with his approach but without complacency, they highlight the theoretical and methodological contributions of his sociology, its limitations, its errors, its relevance for teaching sociology to the new generations, and the perspectives that remain open in several thematic areas.

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