



Introduction

It may seem surprising that, after more than a century has passed, the founding fathers of sociology are still subject to such close attention. It is easy to understand why historians of the discipline might wish to study their work in order to date it more precisely, identify the definitive texts, trace their relationships and suggest interpretations that are faithful to both their spirit and letter. But what is really surprising is that theorists who one might think would only be concerned with contributing to the advancement of knowledge about sociological phenomena, and in the construction of new and more powerful theories should still be calling on the classic works of sociology. One only has to look at the most ambitious and creative theoretical contributions of the last three decades to be convinced of this. References to Durkheim and Weber, to Simmel, Tocqueville, Pareto and Marx are numerous. This is not a form of ritual obeisance, and nor is it a rallying cry and even less so an appeal to canonic authority that is designed to convince the reader.

Some might be tempted to say in response to this, and not without a hint of condescension and even perhaps commiseration, that as sociology is not a cumulative science with unifying paradigms, it is condemned perpetually to revisit its history and to incessantly plunder the storeroom of its outmoded theories. But to believe this would be to be unaware of its history; and it is at one and the same time a great injustice as well as a sign of ignorance not to see that some parts of

sociology have had a cumulative character. And it would also be somewhat foolish to think that the fact that theoreticians conduct historical studies of the discipline, rather than professional historians, that this is just a sign of their vain attempts to shore up conceptual or theoretical deficits by a continual return to the past. We do not need to cite the many examples drawn from the natural sciences where scientists have summoned up the history of their discipline to produce new theories. One alone will suffice for our argument. It is taken from mathematics and more particularly set theory.

In his rigorous and revolutionary work on the foundations of set theory, Georg Cantor devotes considerable attention to the problem of infinity in number theory. In his 1883 essay, "Grundlagen einer allgemeinen Mannigfaltigkeitslehre", he draws on the whole of the mathematical tradition that he traces back to the 17th century, and in particular to Descartes and Leibniz. Not only does he discuss all of his predecessors' concepts of mathematical infinity, but he also ventures into a dialogue with the philosophers. Is this merely a matter of a self-indulgent intellectual affectation on the part of the mathematician? If this is assuredly not the case, is it because he seeks a mythical link to his problem and the innovative notions he is putting forward to his contemporaries, so that they will, as a result, be consecrated by this tradition? It is a classic response that is often found at particular and critical moments of a science. Galileo claimed to be working in the Platonic tradition and against Aristotle in his *Discourses and Mathematical Demonstrations Concerning the Two New Sciences*. This is not, however, the intention of the founder of set theory. The fact that he took such great pains to bring to the discussion on infinity everything that science had to say was to demonstrate definitively that none of the theories put forward was able to offer a satisfactory solution to the problems that it posed. At the risk of repetition, it should be emphasised that Cantor's mobilisation of history is neither innocent curiosity nor a quest for legitimation. This will easily be confirmed by an examination of other works on the study of infinity, especially his *Abhandlungen zur Geschichte der Mathematik und zur Philosophie des Unendlichen*.¹

When all is said and done, Schumpeter (1954) was right to find in the historical study of any scientific discipline the three reasons that he describes at the start of his *History of Economic Analysis*. "The gains with which we hope to emerge from it (the study of history) can be displayed under three heads: pedagogical advantages, new ideas and

insights into the ways of the human mind.” In the first instance, the most gifted student will soon find that without a grasp of the historical framework, he will not be able to understand either the meaning or orientation of the theory he wants to assimilate. This is because the problems and methods of a science at any given moment in its history bear the imprint of the work that has hitherto been accomplished, and cannot be properly understood if preceding answers to the questions raised are ignored. Secondly, study of the history of a science is a source of inspiration. Schumpeter argues (1954, p. 4) that “(s)cientific analysis is not simply a logically consistent process that starts with some primitive notions and then adds to the stock in a straight-line fashion.” And not without delectation and a certain irreverence, he points out that the basic ideas that led to the theory of relativity were first expressed in a work on the history of mechanics. More importantly, history teaches us about “the futility and the fertility of controversies; about detours, wasted efforts, and blind alleys; about spells of arrested growth; about our dependence on chance, [...] And we learn *what succeeds and how and why* [...]”. Thirdly, science, as much as its history, tells us a lot about the workings of the human mind. It shows us “logic in action”. More than any other human activity, scientific activity by its very nature reveals mental processes.

In suggesting a non-conformist interpretation of Durkheim’s sociological theory to the reader, I intend to pursue several objectives. The first of these is to demonstrate that certain aspects of the theory can be considered to be intrinsic to sociology. The second is concerned with its continuing usefulness and its contemporaneity. I will show why a reading of the work of the French sociologist is still of interest to contemporary sociology and to what extent it remains influential for a considerable amount of research that is related to it, either in an explicit or implicit manner. The third aim is to provide a consideration of how to write the history of our scientific discipline. Durkheim (1938), in his socio-historical work on educational systems, and more especially Max Weber (1922), demonstrated that history is a provisional synthesis between, on one side, scholarship and what are sometimes divergent scientific views about the current state of the discipline, and on the other, the social values that direct our interests. It is as a result of this epistemological viewpoint and these relationships with values that we are able to pose questions about the history of science and to put forward new interpretations.

The interpretation of *Le Suicide* by Lazarsfeld and his school cannot be fully understood unless the American methodologist's scientific interests are given full consideration, and these involve looking, not only at the production and use of techniques and tools for analysis, but also and more importantly at the problem of the codification of the rules of thought.² The interpretations of *La Division du travail* by Hans Zetterberg (1954) and Peter Blau (1977) can barely be understood unless seen as part of the project to construct a hypothetico-deductive theory in the sense of a system whose terms are hierarchicalised in such a way that very specific propositions can be deduced from the most general theoretical propositions.³ Similarly, the interactionist interpretation of Durkheim's work by Raymond Boudon (1979) and which is also to be found in my own work that follows from it, cannot be properly understood if this paradigmatic perspective is ignored.⁴

The interactionist interpretation that I propose is to be understood as a global one. It aims to embrace all of the work of the French sociologist, and not just to explain certain of its aspects, however important they may be, through this perspective. It is designed to document and demonstrate the internal coherence of the entirety of Durkheimian theory. More than any other analysis of this type, it aims to be, not only faithful to the spirit and letter of the theory, but also (without false modesty) a richer and more promising contribution. It is not part of my task to say whether these objectives have been attained. Only the reader can judge, on the basis of a comparison of the project and its achievements on one hand, and on the other by examining the benefits that can be drawn from this interpretation as compared to those from other perspectives, and in particular that of the holistic interpretation.

Take, for instance, the interpretation of anomie in Raymond Boudon (1979). Holistic interpretations normally treat anomie as a "suicidogenic power", a real and active force, as real as "cosmic forces". This mysterious entity, that is located at a societal level, is fundamentally extraneous to individuals, dominating them and forcing them in particular to commit suicide. This power determines the rate of suicide in each society. To give due allowance to the holistic exegetes, however, it has to be admitted that this hyper-sociological language is, in fact, used by Durkheim in *Le Suicide*. All would encourage the reader of *Suicide* towards a realist view of anomie. I should make clear, nonetheless, that this realist conception contradicts many parts of the same work and misinterprets the ceaseless protestations by the

French sociologist against what he considered throughout his intellectual life to be a caricature of his thought. The question is then, how to know what Durkheim really meant? Was anomie a notion that was still unclear to him and so complex that he was not yet able to analyse its dimensions and to offer a precise definition? As it is found only in specific sections of *Suicide*, can the use of such metaphorical language be explained by the limited knowledge Durkheim possessed of the phenomena he was trying to understand? If so, would it be possible to offer another reading that would dispense with the numerous contradictions generated by the realist interpretation and that would reconstruct the logical coherence of Durkheim's thought? These are the questions that Raymond Boudon (1979) attempts to answer.

Boudon constructs a simple simulation model that accounts for the effects of anomie through the operationalised dimensions he defines. He analyses a competitive situation between two players, and examines the variations in their behaviour that result from the changes in the conditions of the competition. He shows that if the structure of the game does not change but the number of potential winners increases, the number of players as well as the number of losers will grow. The expansion in the possibilities of gain or of increased social standing raise the general level of frustration. "This laboratory model", explains Boudon (1979, p. 27), "thus facilitates the understanding of certain mechanisms that Durkheim put together under the label of anomie. There is no need whatsoever to interpret the concept of anomie as a mysterious force located at the level of *Society*, a power which without their knowledge can stimulate individuals' appetites, fill them with reckless hopes, and in consequence expose them to frustration and, in the most extreme cases, to despair."⁵ This type of interpretation is readily generalisable.⁶ That is one of the objectives of this work.

Nobody would dispute the fact that Durkheimian theory contains ambiguities and that it is not completely coherent⁷. Moreover, it is very far from my view that Durkheimian theory emerged fully formed from the mind of Durkheim as Athena sprung fully formed from the head of Zeus. Not only did Durkheim modify, amend and rectify the fundamental concepts of his theory throughout his intellectual life, but he also continued to be completely ambiguous and even from time to time to make mistakes. I am aware of the inadequacies of this theory, and do not hesitate to point to them and to explain them.

Let us examine the case of the definition of suicide, and more particularly the *rate* of suicide, as a social phenomenon. Throughout

Suicide, Durkheim continually argues that suicide, as he understands it, is a social phenomenon that requires sociological explanation and not an individual phenomenon that is psychological. The arguments he puts forward to support his thesis are of two types. The first is concerned with the regularity of all international statistics about suicide. The second is concerned with the nature of the causes of these statistics—since, he argues, these causes are social then their effect, which is suicide, must also be. However, these arguments do not justify Durkheim's proposition about the social character of suicide. They are logically inadequate and do not prove at all that suicide is a "social" fact in the sense that Durkheim intended. Why did the author of *Suicide* make such a mistake and contradict his own theory of the social fact as a result *sui generis* of the interdependence between individuals? Several reasons might be suggested that are related to his struggle to ensure that sociology would enjoy the status of an independent science. However, it is perhaps more fruitful to pose the question in terms of the logic of his sociological thought itself. Why would Durkheim have confused a macrosociological phenomenon which is an emergent effect with suicide, and which—as he so often said—is not one at all? It is because he did not have the intellectual tools available to him that would have helped him make such a distinction. The suicide that he studied is without doubt a "social" phenomenon, but it is an effect that results from the simple addition of individual suicides. Thus, it is a *resultant* effect and not an emergent social fact. A more complete discussion and analysis of this case is to be found in the first chapter of Part One.

This book is certainly not intended as a historical, systematic or complete discussion of all of Durkheim's sociological work. My objective is not to provide an account of, or to affect a complete revival of, all aspects of his sociology, which would, in any event, be an impossible task. I have confined myself in this work to a detailed examination of the basic principles of sociological analysis, which forms the first part of the book, and to his sociology of educational systems, which forms the second part.

What is a social fact? Is the answer that is commonly considered part of the sociological tradition really adequate? Is it possible to differentiate several types of social phenomena? How does Durkheim conceive of the relations between microsociology and macrosociology? Does the oft-repeated principle that the social must be explained by the social, a century-old idea that has been handed down through the

sociological tradition as Durkheimian dogma, still stand up to scrutiny? Does it provide a faithful translation of the thought of French sociology's founder? Did Durkheim, as I shall demonstrate, conceive of other solutions to the link between the micro and the macro? Is interactionist theory sufficiently powerful to explain the emergence of norms and values? Why is the Durkheimian research strategy anti-reductionist? These are the questions that I discuss in the first chapter.

The second chapter is an essay in the formalisation of Durkheimian theory. It starts from the system of interactions between actors in order to explain the emergence of a basic macroscopic fact—the social division of labour. It shows how even a “qualitative” formalisation that does not seek to estimate the parameters of the model by use of statistical data, makes it possible to better understand the theory and to deduce new propositions that Durkheim could neither guess at nor derive from his intuitive theory. In the course of this discussion, I examine some arguments advanced that make it possible to reject both a strictly functionalist explanation of macrosociological change as well as those rigorously individualistic hypotheses that do not take into consideration the structures of interdependence between social actors.

As an adjunct to the first two chapters, the third is entirely devoted to the theory of explanation and the research strategies that it requires. It contains two distinct but complementary models, the deductive nomological model and the generative mechanism model. Durkheim rejected Auguste Comte's positivism by showing, not just that scientific activity cannot be reduced to nomological research, but that the search for laws only makes sense if it is possible to deduce such laws from general theoretical hypotheses and from propositions that relate to empirical antecedents. He rejected the approach of the founder of positivism because, for Durkheim, explanation is based in the search for the “modes of production of phenomena” or of their generative mechanisms in the sense given to this term by Herbert Simon and Raymond Boudon.⁸ In the fourth chapter I try to demonstrate that it is possible to deduce the taxonomies of suicide and abnormal forms of the division of labour from the same theoretical principles.

The second part of the book is given over to the Durkheimian theory of educational systems and offers an illustration of the application of the principles of sociological analysis that are outlined in the first part of the book. The primary objective pursued in the four studies that comprise this part is to demonstrate that the sociological tradition has only retained one of the aspects of Durkheim's theory of normative

socialisation. I show that this functionalist reading is mistaken, and that to a large extent it is in contradiction with the spirit and letter of Durkheimian theory. I establish how and why social and ideological conflict is the basic category without which any explanation of the genesis, functions and structures of educational systems is impossible. Such a proposition is not, moreover, confined merely to the work of the French sociologist on education for it constitutes a basic component of the theory that he developed in *La Division du travail*.

I have also tried to show that this category controls both the content of normative socialisation and that of cognitive socialisation, as well as their change. Without it, there would be great difficulty in understanding the dominance of literature over educational knowledge for many centuries, and the basic differences that can be observed between Catholic and Protestant societies in the structure of their educational systems, in the content of the knowledge they transmit, and the importance allotted to science and technology. The reader will no doubt see the parallels between this explanation and that which Max Weber and later Robert Merton would more systematically reveal in their work on the effects of the Protestant ethic on the development of science since the seventeenth century. The central role that religion plays in the definition of the system of knowledge transmitted by the school is equally well illuminated by Durkheim.

But contrary to what might be thought, Durkheim makes the point that it is not the exigences of the new form of economic organisation constituted by industrial society that generate pedagogic change and the continual reform of the educational system. It is clearly not the most industrialised countries that possess educational institutions which have the characteristic and necessary features for industrialisation, but rather France, the country where ideological conflicts are the most violent as well as the most frequent.

The fact that such a theory opened the way to so much research and that it laid down the groundwork for new areas of sociology to the extent that even a century later its influence on contemporary thought is still widely felt, is ample proof of its fruitfulness. In so many areas it remains an essential reference point. To draw up an exhaustive list of the research studies inspired by Durkheim is an impossible task for me. Moreover, even a very rapid overview would demand more space than an introduction allows.

Leaving aside anthropology, on which Durkheim alone among the founding fathers left such an imprint, I will confine myself to

the most recent sociological theories of the last three decades.⁹ To a greater or lesser extent they have been shaped by Durkheim. Bernstein's sociolinguistic theory must be cited, as well as the new sociology of educational knowledge (to which I devote a brief note), the sociology of science and in particular the initiators of the strong programme that is influenced by Durkheim's work.¹⁰ And one must not forget structuralism, macro-structural theory and the work of all those who strive for a return to the challenging projects of the founding fathers, or for the creation of a global sociological theory.¹¹ And the debt that much of the research on deviance or the microsociological theories of ritual owe to Durkheim is all too evident.

In conclusion, I would like to add some explanation of the title chosen for this book. In my view there can be little doubt that Durkheim fully understood the complexity of what he described as "social facts" (*faits sociaux*) or what we would describe today as macrophenomena. Indeed for him any social structure, *a fortiori* any society, is a complex system in the modern sense of the expression to the degree that we cannot understand, explain or predict its behaviour on the basis of even a perfect knowledge of its parts. He argues that we are incapable of explaining the emergence of norms, and more generally of institutions, on the basis of hypotheses about individuals, without also taking into consideration their interactions over time.

Durkheim was, in addition, very much concerned with the emergence of social systems and how this takes place, and in part such questions were resolved by his use of the concept of solidarity or interdependence that plays a central role in contemporary complex systems theory. This is why the founder of French sociology defended an anti-reductionist programme of scientific research. As he reminds us in the first few pages of *Les Règles*, some properties of water cannot be deduced from those of the atoms from which it is composed.

In this context, my experience during a recent interdisciplinary research seminar on complex systems might be of relevance. Some physicists participating in the seminar asked me to discuss the relevance of classical sociology for the understanding of the properties of complex systems, a topic that poses critical problems for many contemporary sciences. I gave an outline of Durkheimian and Weberian theories. Although they were not formalised by their authors they can nonetheless be formalised to a degree, and this proved to be of considerable interest to colleagues from other disciplines.

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NOTES

1. The two studies are found in Cantor (1966). On Cantor and mathematics, see Zernelo (1932) in Cantor (1966). The strictly internalist position of Cantor did not stop him drawing on the history of mathematics. As he writes, "Die Mathematik ist in ihrer Entwicklung völlig frei und nur an die selbstredende Rücksicht gebunden, dass ihre Begriffe sowohl in sich widerspruchlos sind, als auch in festen durch Definitionen geordneten Beziehungen zu den vorher gebildeten, bereits vorhandenen und bewährten Begriffen stehen."
2. See Boudon (1970 and 1993) lengthy introductions to collected works of Lazarsfeld, in French and English.
3. Zetterberg (1950) argues that there are five advantages of an axiomatised theory. The first is parsimony in the concepts and hypotheses used to state new propositions, whether empirical or theoretical. The second is that an axiomatised theory can be used to coordinate research so that many separate findings support each other, giving the highest plausibility to the theory per finding. The third advantage is that hypothetico-deductive theory offers the researcher the ability to know precisely that part of the theory being tested. The fourth is the possibility of identifying the cause of a failure of a hypothesis test. The last is that an axiomatic theory makes it possible to distinguish propositions that are definitions from those which are hypotheses.
4. Durkheim appears in almost all of Boudon's work. His Lazarsfeldian interpretation of Durkheim is in Boudon (1969). Although Boudon redirected his research on the theory of rationality, even though he might seem to have distanced himself from Durkheim and come closer to Max Weber, his dialogue with the founder of French sociology has remained a constant; see Boudon (1986, 1990, 1994, 1995a and 1995b).
5. Coleman (1990, p. 474) suggests a similar interpretation of anomie, linking it to expectations and frustrations without, however, proposing a generative explanation of suicide such as Boudon's. This concern with *Le Suicide* is manifest within the context of his general and critical reflection on theories of frustration, mainly their pretensions as explanations of revolution. Coleman's aim is more ambitious since it involves explanation of various collective behaviours on the basis of hypotheses drawn from rational choice theory.
6. It is easy to show that the theorems and laws in those sections that deal with egoistic suicide can be deduced from individual hypotheses about the system of interactions between individuals. Durkheim invites the reader to do this in the same spirit as that of *La Division du travail* where all the explanatory

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models that he uses are based on interaction structures between actors. (See my Chapter 2).

7. One of the most incisive and detailed analyses of *Suicide* which deals with logical contradictions is that of Besnard (1987).
8. The expression “modes of production of phenomena” is widely used by Auguste Comte, particularly in *Cours de philosophie positive*. Identification of generative mechanisms is Boudon’s research strategy *par excellence*, and was codified and used by Simon.
9. There would be little point in trying to draw up a list of those whose ideas owe some debt to Durkheimian theory. Many derive directly from some aspects of Durkheim’s sociology, although their authors would not say so explicitly. If only to cite some celebrated cases it would be almost impossible to understand the anthropological concerns of Evans Pritchard, Mary Douglas, Robin Horton or of the theory of segmentarity, without thinking of *La Division du travail* and *Formes élémentaires de la vie religieuse*.
10. It is intriguing to note that all these movements began in Britain at the start of the 1970s. Bernstein (1971–1975), and Michael Young (1972), both recognised Durkheimians, were responsible for a revival of the sociology of education and culture. Barnes, Bloor, Collins, Mackenzie, Mulkay, Whitley and Woolgar, initiators and defenders of the new sociology of science, are all British.
11. See Barton (1968) for the former and Fararo (1989) for the latter.