1   From Theory to Theorizing

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S INCE THE MID-TWENTIETH CENTURY THE SOCIAL SCIENCES HAVE
made great advances in the kind of methods that they use. In the
area of theory, however, the situation is quite different. The development since
World War II has been quite uneven in this respect; sociologists and other
social scientists are today very methodologically competent, but considerably
less skillful in the way they handle theory. The major journals contain many
solidly executed articles, though creative and theoretically sophisticated arti-
cles are less common.

Why is this the case? And can the situation be changed? Can the theory
part be brought up to par with the methods part in today's social science? One
answer that I suggest we may want to explore is the option of placing more
emphasis on *theorizing* than on *theory*; and in this way start to close the gap
between the two.

Roughly speaking, the expression "to theorize" refers to what one does to
produce a theory and to the thought process before one is ready to consider
it final. While theorizing is primarily a process, theory is the end product.
The two obviously belong together and complement each other. But to focus
mainly on theory, which is what is typically done today, means that the ways
in which a theory is actually produced are often neglected. This is true both
for the individual researcher and for social science as a whole.

Emphasizing the role of theorizing also has huge consequences for the way
that theory is taught, a topic that is of great importance and deserves a volume

of its own. For example, when sociological theory is often taught today, the student gets to know what Durkheim, Weber, Bourdieu, and others said—knowledge that will supposedly come in handy once the student undertakes future research projects. But teaching theorizing is very different; here the goal is for the student to learn to theorize on his or her own. The point is to learn to develop theories for one's own empirical work, not just use someone else's ideas.

The emphasis on each individual doing his or her own theorizing means that each individual must draw on his or her unique set of knowledge and experience. I refer to the central role of the individual in the theorizing process as *personalism*; the term refers to the fact that theorizing will only be successful if one delves deeply into one's own self and experiences. You have to know theory to theorize, but to theorize well you also need to relate to it in a personal way.

Also, just as the individual is always exposed to the risk of failing when he or she does anything authentic, the same is true for theorizing (Kierkegaard [1846] 1962). Repeating other people's theory entails little risk, unlike theorizing on one's own. This is part of the meaning of Weber's statement that "the scientific worker has to take into his bargain the risk that enters into all scientific work: Does an 'idea' occur or does it not?" (Weber 1946: 136).

There exist many ways of theorizing, including induction, deduction, generalizing, model-building, using analogies, and others. Some of these, I argue, are especially useful for theorizing in sociology and social science. In discussing and presenting the different types of theorizing I will often use the work of Charles S. Peirce as my guide. The writings by Peirce, especially "How to Theorize" and "Training in Reasoning," are extremely suggestive for theorizing (e.g., Peirce 1934, 1992d/1998). I have similarly found many relevant insights in cognitive science.

But it is also clear that much of what has been written on theorizing has been forgotten and that no one has tried to pull together the most important texts or tried to piece together the tradition of theorizing that I have attempted to describe in this introductory chapter. The writings that do exist are scattered throughout the enormous literature in social science, in autobiographical accounts by social scientists, and in their correspondence.[1]

Finally, throughout this chapter I point out the many obstacles that currently exist to creative theorizing. These epistemological obstacles, as I will call them (following Gaston Bachelard), are of different kinds (see, e.g.,

Bachelard [1934] 1984). Some of them make it hard to deal effectively with data in the process of theorizing. Others encourage the social scientist to rely far too much on existing theory and skip the element of theorizing or reduce it to a minimum.

The Distinction between the Context
of Discovery and the Context of Justification

In approaching the topic of theorizing in social science, it is convenient to take as one's point of departure the well-known distinction in the philosophy of science between the context of discovery and the context of justification. In doing so, it is possible to show that both the current neglect of theorizing and the related overemphasis on theory have much to do with the tendency in today's social science to largely ignore the context of discovery, and instead to focus most of the attention on the context of justification.

The distinction between the context of discovery and the context of justification received its most influential formulation in the 1930s through the work of Hans Reichenbach and Karl Popper. Today the distinction is still around, even if it has been criticized over the years and is far from generally accepted (Hoyningen-Huene 1987; Schickore and Steinle 2006). It should be pointed out that the argument in this chapter does not rest on the notion that these two concepts are each other's absolute opposites or that there exists a sharp conceptual line between the two. Nonetheless, the distinction represents a useful point of departure for the discussion.

Both Reichenbach and Popper worked on ways to improve empiricism as a philosophy of science. Reichenbach coined the terms "context of discovery" and "context of justification," while Popper helped to diffuse them by giving them a central place in his influential work *The Logic of Scientific Discovery* (Popper 1935: 4–6; Popper 1959: 31–32, 315; Reichenbach 1938: 6–7, 281; Reichenbach 1951: 231). Both used the distinction primarily with the natural sciences in mind, not the social sciences.

Reichenbach defined the context of discovery as "the form in which [thinking processes] are subjectively performed," and the context of justification as "the form in which thinking processes are communicated to other persons" (Reichenbach 1938: 6). While science can address issues in the context of justification in a satisfactory way, the same is not true for the context of discovery. "*The act of discovery escapes logical analysis*" (Reichenbach 1951: 231, emphasis added).

Popper similarly argued that everything that precedes the formulation of a theory is of no interest to science and logic. It belongs at best to "empirical psychology" (Popper 1935: 4–5; Popper 1959: 31–2). This meant in practice that what accounts for the emergence of new theories cannot be studied. In his influential work Popper kept hammering away at this message: it is impossible to study theoretical creativity; the only place for science is in the context of justification (Popper 1982: 47–48).[2]

In terms of theorizing in the social sciences, what is important in Reichenbach and Popper's distinction is that attention was now directed away from the context of discovery and toward the context of justification. A theory that cannot be verified (Reichenbach) or falsified (Popper) is not scientific; and it therefore becomes imperative to establish the link between theory and facts according to scientific logic.

Since the context of discovery was seen as impossible to study with scientific rigor, it fell to the side. If we for the moment view the scientific enterprise as consisting of three elements—one goes from (1) *theorizing*, to (2) *theory*, to (3) *the testing of theory*—only the second and third elements received sustained attention in social science. The first element was largely ignored. Since there exist good reasons for believing that one draws on different ways of thinking when theorizing and when testing and presenting ideas to an audience, this neglect has had serious consequences for social scientists' capacity to theorize.

The strong focus on verification and falsifiability in sociology after World War II is illustrated by Robert K. Merton's influential work in the 1950s and 1960s. Merton looked at theory mainly from the perspective of testability, as his well-known definition of theory illustrates. "The term *sociological theory* refers to logically interconnected sets of propositions from which empirical uniformities can be derived"; and these uniformities should be established via "empirically testable hypotheses" (Merton 1967: 39, 66, 70).

Because the emphasis on the methods part of social science continued after Merton, the first of our three elements—theorizing—has been largely ignored. In the rest of this chapter, I will therefore focus on theorizing. This should not be interpreted as an argument that theory and the testing of theory are not of crucial importance, only that theorizing is in need of extra attention today since it has been neglected for such a long time.

The General Structure of the Process of Theorizing

> Theory cannot be improved until we improve the theorizing process, and we cannot improve the theorizing process until we describe it more explicitly, operate it more self-consciously, and de-couple it from validation more deliberately. A more explicit description [of the process of theorizing] is necessary so we can see more clearly where the process can be modified and what the consequences of these modifications are.
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> Karl Weick, *"Theory Construction as Disciplined Imagination" (1989)*[3]

Merton was well aware that good theory was the result of inspiration and creativity, as well as rigorous and systematic work with data. He noted that method books are full of "tidy normative patterns," but do not describe how sociologists actually "think, feel and act" (Merton 1967: 4). As a result of this, Merton continued, studies have "an immaculate appearance which reproduces nothing of the intuitive leaps, false starts, mistakes, loose ends and happy accidents that actually cluttered up the inquiry" (Merton 1967: 4).

But even if Merton was a very creative theorist himself, he does not seem to have felt that theory could be advanced very much by focusing directly on the context of discovery. His main contribution to an understanding of discovery underscores this very point, namely the idea that discoveries happen by sheer accident or "serendipity" (Merton 1967: 158–62; Merton and Barber 2004).

A similar attitude was present among the sociologists who were engaged in what became known as "theory construction" in the mid-1960s to the mid-1970s. According to a historian of this approach, theory construction essentially continued the "verification approach" of Merton and other Columbia University sociologists (Zhao 1996: 307; see also Hage 1994; Willer 1996; Markovsky 2008). Studies that did not develop a satisfactory way of testing theory were often labeled "verbal" or otherwise pushed to the side as pre-scientific and passé (Blalock 1969). The classics were sometimes mentioned as an example of a failure to properly "formalize" (see, e.g., Freese 1981: 63).

While one can learn much about theorizing from the advocates of theory construction, they were primarily interested in the context of justification, not the context of discovery. Their main concern was with the way you develop and test hypotheses, not with what precedes those two operations. They also focused primarily on formal and cognitive elements, and had little to say on such topics as intuition, imagination, and abduction. This also goes for the

best works in the genre, which are of high quality, such as *Constructing Social Theories* by Arthur Stinchcombe, and *An Introduction to Models in the Social Sciences* by Charles Lave and Jim March (Willer 1967; Stinchcombe 1968; Lave and March [1975] 1993).

How then is one to proceed in order to bring what happens in the context of discovery into the theorizing process in an effective way? Can one, for example, produce practical rules for how to theorize, and can these rules then be used to produce a skill in theorizing that matches the skill in methods that exists today? This is the main question I try to address in the rest of this chapter. The first part of my answer, drawing on Peirce and others, is that some preliminary rules or guidelines of this type can be devised. The second part of my answer is that it is imperative to proceed beyond knowing rules or guidelines, and to develop a skill in theorizing.

It deserves to be repeated that in order to succeed in this enterprise we also need to get rid of some of the epistemological obstacles to theorizing. One of these is the idea that in order to theorize one has to proceed in a scientific or logical manner. This is not the case; and there exists today a large literature in cognitive science that shows this (for a discussion of this topic, see Chapter 2, by Karin Knorr Cetina).

To theorize well one needs inspiration, and to get inspiration one can proceed in whatever way leads to something interesting—and that means *any way*. This is permissible because the goal, at this stage of the process, is simply to produce something interesting and novel, and to develop a theory about it. It is only at a later stage, when the theory is being tested or otherwise confronted with data in a systematic manner, that scientific and rigorous rules must be followed. To use an analogy from the area of criminal justice: when you are trying to figure out who the murderer is, you are in the context of discovery; when you are in court and have to prove your case, you are in the context of justification.

In brief, creativity is primarily what matters when a theory is devised; and scientific logic and methodological rigor are primarily what matters in the context of justification. This, incidentally, is precisely what Reichenbach and Popper argued. But what to their followers in social science became a reason to ignore the context of discovery—it takes you away from rigor, logic, and proof—can also be seen as an opportunity, an opportunity to make full use of one's imagination, intuition, and capacity for abduction (see also, e.g., Weick 1989; Luker 2008).

A second epistemological obstacle to theorizing is the view, in sociology and many other social sciences, that empirical data should enter the research process first in the context of justification or when the hypotheses derived from a theory are tested. According to this view, the social scientist should start the study with a distinct research question or a distinct theoretical point in mind, then construct hypotheses, and finally confront the hypotheses with data.

This approach is implicit in much of mainstream sociology and also in some of the other social sciences. The researcher is encouraged to begin with a research question, and then try to answer it with the help of data (Merton 1959). Or the researcher selects some theoretically interesting idea, and then proceeds to the empirical phase, in the hope of being able to further explore and develop it in this way.

Like middle-range theory, theory-driven research represents a deliberate attempt to steer free of "mindless empiricism" or the production of facts with little or no reference to theory. In so-called mindless empiricism one begins by collecting data in an attempt to avoid any artificial or preconceived theoretical notions. One then summarizes the result without linking it to a theory.

The way in which theory was overtaken by the rapid development of methods after World War II is also reflected in the fact that quite a bit of theorizing is presented these days as being part of methods. This is, for example, the case with some qualitative methods, including participant observation and grounded theory. There is similarly a tendency among the proponents of theory construction to talk about "theoretical methods" (e.g., Willer 1967; Stinchcombe 1978; Freese 1980).

The problem with using this type of terminology is that it feeds into the tendency to focus primarily on the role of methods in social science research rather than on creativity and originality. The result, especially for qualitative methods, is a failure to realize that theorizing constitutes an independent element in the research process, and that theory is not the same as methods. Theory has its place in the research process, and it also needs its own space.

The types of research that so far have been discussed leave very little room for creative theorizing, except when carried out by those rare individuals who have a natural talent for it. They somehow succeed under any circumstances. But the average social scientist is different. As a graduate student, he or she will typically have been taught methods, but not theorizing, since the topic is rarely taught in theory classes (see, e.g., Markovsky 2008). As a result, all too

often an awkward attempt is made to force research findings into some exist-ing theory or just stick a theoretical label on them. First you do the research, and then you try to figure out if your findings fit some theory.

The dilemma for much of contemporary social science is consequently that you are damned if you do and damned if you don't. It is hard to produce good theory if you start from the facts; and it is hard to produce good theory if you start from theory. In the former case, there will be no theory; and in the latter case, the theory already exists.

How then to proceed? The strategy I advocate as a response to this dilemma is to let empirical data drive the theorizing process. This is natural for empiri-cal social science and should not be seen as advocacy of mindless empiricism. On this point the classics are very instructive. Weber, Durkheim, and many others of the pioneering generation in modern social science advocate *start-ing with the facts*. In *Rules of Sociological Method*, Durkheim says that the researcher should proceed "from things to ideas," not "from ideas to things" (Durkheim [1895] 1964: 15). And according to Weber, "theory must follow the facts, not vice versa" (Weber 2001: 36).None of the authors of the classics, however, has showed how to go from facts to theory in the creative manner in which they themselves excelled. One way of doing this—and this is what sepa-rates the approach I advocate from mindless empiricism, theory construction, and theory-driven research—is to let the data enter the research process *at two different stages*. One should start the research process by exploring data. And at a later stage one should formulate hypotheses (or their equivalents) and systematically confront these with data.

How is this done? Just as some researchers advocate the use of a pilot study before the main study is carried out, an early empirical phase is necessary, in my view. But its purpose is very different from that of a pilot study, namely to develop creative research ideas through theorizing. The first part of the research process can be called a *prestudy*; and it is characterized by theorizing based on empirical material that has been generated with the aim of making a (modest) discovery.

The reason to give it a special name is to draw attention to it as a distinct element in the research process. While the term *prestudy* may suggest associa-tions with the pilot study and the exploratory study, it has a different purpose, namely to make it easier to develop a creative theoretical approach to a topic.[4] At the first stage of the research process (during the prestudy), one should deal with the data in whatever way is conducive to creativity—and *then* try to

theorize with the help of these data. Once an interesting theoretical idea has been formulated and developed into a tentative full theory, one can proceed to the second stage, which is the context of justification where the main study is carried out. This is where the research design is drawn up and executed. From this point on, rigor and logic are crucial since the data to be used have to be collected in reliable ways and also presented in this manner to the scholarly community.

Note that what is being discussed are not major discoveries by major social scientists, but the kind of modest discoveries that most social scientists can produce if they are well trained and passionate about their work.

Two other points should also be added to this account of the two stages of the research process, the prestudy and the main study. First, this is a very general description of how new ideas may be developed and later tested. It is well known, for example, that when hypotheses are tested unexpected findings might lead to the formulation of a new theory. Or to phrase it differently: creative theorizing may also take place in the context of justification.

There is furthermore the fact that many researchers will work for decades on a problem, hoping to solve it one day; and no prestudy is necessary in this case. In brief, the two stages are often mixed or merge with each other. The process also tends to be iterative.

The second point is that, for successful theorizing to take place in social science, the researcher needs to be thoroughly grounded in its core ideas and know many of its concepts. This is a version of Pasteur's dictum that "chance only favors the prepared mind," or, to use a more recent and popular version of the same idea, the 10,000-Hour Rule of Malcolm Gladwell (you need to do something for 10,000 hours to become really good at it; Gladwell 2008: 35–68). Creative theorizing may be laissez-faire in its general approach, but it can only be done well if the theorizer is firmly grounded in theory.

This does not mean that the researcher has to master all the works of Weber, Durkheim, Simmel, Parsons, Merton, Goffman, Coleman, Bourdieu, and everyone else who has made a substantial contribution to social science. What it does mean is that the researcher should have penetrated to the very core of the social science enterprise and learned the ABCs of theorizing. A sociologist should, for example, understand intimately some of the major theories and also be familiar with many concepts in his or her field.

To summarize: one way to improve theorizing is to theorize on the basis of facts *before* the research design has been drawn up and executed. Theorizing

also often takes place when the research design is drawn up and when it is executed, but it is dangerous to wait until these stages to theorize.

In addition to theorizing in the prestudy and when the research design is drawn up and executed, there is a third form of theorizing—what may be called fundamental theorizing. This type of theorizing addresses questions like, What is a fact? What does causation mean? What constitutes an explanation?

The Different Types of Theorizing in Social Science

Theorizing during the Prestudy
The most important place for theorizing is in the context of discovery and in close connection with data (the prestudy). While one should proceed according to the accepted methods of the social science community when the main study is carried out, things are much freer at this stage since the main point is to come up with good ideas.

Theorizing during the Main Study
Even if the most important place for theorizing is in the context of discovery, theorizing also takes place in the context of justification or when the main study is being carried out. Examples of this include the kind of theorizing that must take place if the theory that was developed in the context of discovery turns out to be wrong, or if it cannot be turned into useful hypotheses (or the equivalent), or if these hypotheses turn out to be wrong. Very difficult and/or laborious problems also tend to take a long time to solve.

Fundamental Theorizing
In order to theorize and carry out social science research more generally, certain things must be taken for granted. These include answers to questions such as, What constitutes a fact? What is a concept? What constitutes causation? These presuppositions are nonempirical in nature; and when one questions and improves on them one is engaged in fundamental theorizing.