

Positivism

BRUNO FRERE

University of Liège, Belgium

Making the Science of the Social

The nineteenth century was a century represented by its actors as one of irreversible progress – one that the advance of the sciences was driving toward an increasingly developed future. In this future, it was thought, knowledge would allow man to emancipate himself once and for all; he would be freed from the heaviest and most punishing tasks, which would be carried out by machines and other new technologies. The control of fossil fuels allowed for the invention of the train, and electricity appeared, as did photography and the telegraph. Medicine progressed. Scientific research permitted an increasing number of illnesses to be cured and treated through, for example, the first vaccines, which were enabled by Pasteur's discoveries. Amid this effervescence, science found itself placed at the center of all scholarly thought, ripe for theorization. The advances of chemistry, physics, and biology fascinated those whom Honneth has rightly called “philosophers of the social” (1994). And at the time, more than one of these philosophers envisaged the application of natural science's methods to the study of human societies.

The idea that it is possible to identify the principal natural laws that govern the development of human groups – in the same way that it is possible to identify the laws that govern the physical world (in order to control it) – gained ground. Saint-Simon (1760–1825), the first of these philosophers, envisaged a social physiology whose task would be to observe social phenomena as we observe natural phenomena. But it was Auguste Comte (1798–1857) who, theorizing what we still understand today as sociology, would endorse the particular **stand** of social philosophy that constituted positivism.

In his first texts, the *Cours de philosophie positive* (written between 1832 and 1842), Comte defines

positivism as a theory of scientific knowledge whose objective approach should eventually give us mastery over social problems, just as the natural sciences allow us to improve our mastery over nature. He hypothesizes that society has evolved since the dawn of humanity in three stages. In the first stage (which he calls theological or fictitious), humans explain the world through gods and other supernatural beings whose true nature is beyond their grasp. In the second stage (which he calls metaphysical or abstract), that of the Renaissance which led to the Enlightenment, humans make appeal to their own abstractions and seek to explain the world through reason. Finally, in a third stage (which he calls positive or scientific), they set out to explain the world through observation, deduction, and experimentation. The example of medicine best illustrates this “evolution.” In the positive age, it is no longer a matter of hoping to treat the suffering patient through prayer (theological age), nor through bloodletting, since rational thinking postulates that, if there is suffering, this must be due to “bad humors” polluting the patient's blood (metaphysical age). Rather, it is a matter of observing, of experimenting, and of deducing general laws. It was by following this approach that Pasteur could conclude that some illnesses were always microbial in origin.

For Comte, the human sciences in general (and sociology in particular) are the last sciences to arrive in the positive age. The natural sciences have already succeeded in establishing that natural phenomena – from a falling stone to the movement of the planets – obey a necessary order. In studying the world of nature, they have managed to subdue what was formerly explained by a supernatural order. It is time the same was done for the social world, because this too – like the whole cosmos – is governed by specific laws, even if it presents a greater degree of complexity. We must thus also report social phenomena only after having observed them as neutrally as possible (like the astronomer observes the movement of the planets) by laying aside all kinds of moral, political, and religious values. Then we should establish the stable relations that exist between

them at a given time. Naturally, sociological laws, while relatively stable, vary much more than the laws of chemistry, biology, or physics. But they can be considered true *as tendencies* whenever observations that have been correctly reproduced in diverse circumstances report the same thing. Thus, for example, Pierre Bourdieu and Jean-Claude Passeron would later show – in their well-known books *La Reproduction* (1970) and *Les Héritiers* (1985) – that we can correlate social precarity and educational failure. Of course, children from the poorest backgrounds can succeed if they manage to integrate and reproduce the educational codes produced by (and for) the more affluent classes. But, as a general rule, we observe that their chances are lower – not because they have a lower IQ, but rather because their immediate social and familial environment does not instill in them *ad-hoc* social dispositions (language, posture, etc.).

A Democratic Progressivism

As Patrick Baert (1998) and Pierre-Jean Simon (1991) point out, positivism these days plays the role of a foil, and it is very often shouted down and used by sociologists to disqualify cursorily the theories of their intellectual adversaries. But in the nineteenth century, it had a progressive dimension that we tend no longer to see.

The nineteenth century was an era with a great appetite for democracy. The French Revolution had profoundly disrupted thinking about the organization of societies. Rousseau, a few decades before, and Tocqueville a few decades afterward (when France experienced a period of royal power's restoration that he considered retrograde and feudal), had both called for forms of governance that respected the interest of the majority. Democratic institutions would allow the general will to prevail over mere individual interests, Rousseau postulated. And, Tocqueville thought, human beings in general undeniably have the intellectual capacity to give themselves their own laws, without abandoning their sovereignty to an aristocratic class *jealous* of its unjustified privileges. In the first half of the nineteenth century there thus emerged a democratic enthusiasm that assigned political subjects a rational capacity to

freely judge the best laws capable of governing society.

Comte was delighted that this democratic aspiration and the metaphysics of the Enlightenment had ruined the aristocratic ~~and~~ theological social system. But he also tempered this enthusiasm. In a move that brought him closer to counter-revolutionary authors and conservatives such as Burke, de Maistre, and Bonald (who would also influence Saint-Simon), he asked himself: is it not a bit naive to believe that with a click of one's fingers one can establish a social democratic contract so that a conscious will, directed by reason, emerges in each "citizen," sweeping away their traditions in a single stroke? Comte's question shows clearly that, in reality, people continue to be directed by customary rules, their cultures, and their religious beliefs.

What we must therefore try to describe and understand, according to the counter-revolutionary authors, are all those social laws that pre-exist individual "citizens" and their political rules. This line of argument – whose intention was to legitimize the return of the *ancien régime* through the study of the social – also sought to draw support from the natural sciences through an audacious sleight of hand. After all, Bonald wondered, "what would we think of a physician who imagines he creates the laws of nature rather than discovering them? Likewise, what should we think of these revolutionaries who have allegedly recreated – based on new norms – a society that in fact both pre-existed and produced them?" (Bonald quoted by Simon, 1991: 299).

But Comte recognized that, by rejecting the idea that people can be citizens in a democracy who freely and consciously choose the rules according to which the collective functions, these authors all end up sinking into political conservatism and the strictest religiosity. In reality, Comte noted, they are moving from neutral observation to the justification of norms and principles that govern society behind the scenes (a justification that Marx will attribute not long afterward to *ideology*, whose role is to uphold the social order as it is). They conflate judgment of facts and judgment of values, or empirical judgment and normative judgment, to use the expressions that would remain so dear to sociology and particularly to Max Weber (1919).

It is true, Comte thought, that *man does not create society, it is society that creates man*, thus prefiguring Durkheimian determinism (1895). But, contrary to these authors, whom they consider **retrograde**, Comte and the positivists who would more or less take after him were decisively progressivist and democratic, following in the tradition of the Enlightenment. The young Herbert Spencer in sociology, Hans Kelsen in law, Ernst Mach in physics, Henri Poincaré in mathematics, and even the members of the famous Vienna Circle in philosophy, all believed – following Comte – that societies could only be reformed through the advance of the scientific mindset. And all of them sustained faith in the virtues of democracy. Citizens can determine the goals to be achieved by science through rational debate. In this respect, scientists have a dual role. Beyond having to determine the means to attain these goals, it is their job to inform this public debate using their positive knowledge of the natural and social worlds. As Bourdieu would remind us (2001), it is by helping actors to better master what determines them socially and culturally that the sociologist may help expand their liberty and their democratic capacities.

Evolutionism, Objectivism, Scientism, and Technocratic Danger

Throughout the twentieth century, positivism would be the object of numerous critiques. There would be many, particularly in anthropology (Boas, Malinowski, Radcliffe-Brown, Mauss, to name a few), who would denounce its evolutionism and its latent ethnocentrism. The paradigm had allowed colonization to be justified by placing western science at the peak of evolution and “traditional” societies – still naively wrapped up in a retrograde theological age – at the bottom of the scale. Critics would recall the craniometric work published by Broca in 1861, which aimed to prove the intellectual inferiority of women and black people. For their part, the hermeneutical and phenomenological movements in sociology and in philosophy (Husserl, Schütz, Winch, etc.) swiftly demonstrated that it was impossible to determine objective social laws, since the definition of a social object varies with the meaning a given observer attributes to it from a given

position. Meanwhile, critical theory (Adorno, Habermas *et al.*, 1976), on the one hand, and the sociology of sciences, on the other (for a good synthesis, see Latour, 2005), both managed to challenge the very artificial scientific distinction between facts and values in the second half of the twentieth century. Thus, in the positivist hope of a politics guided by science (which would be inherited, in particular, by Neurath in the Vienna Circle), we might suspect there is a prefiguration of the technocratic appetite that still characterizes our contemporary democracies. Even today, placing big economic questions into public debate is often short-circuited by the emergence of experts who are allegedly more capable than ordinary citizens of advising elected representatives which direction to take. In this way, positivism has exhibited a certain distrust of common sense that the first American pragmatists condemned as early as a century ago (James, 1907).

For all that, it is still the belief in the possible improvement of humanity – whether in the laboratory or in the public sphere – that continues to motivate most scientists’ work in the twenty-first century. And, as Feyerabend judiciously concluded in his essay on anarchist epistemology (1975), is it not still, ultimately, by leaving each researcher to believe freely in what they **seek to** bring to humanity that they will really help expand the domain of scientific knowledge?

SEE ALSO: Comte, Auguste (1798–1857); Kuhn, Thomas and Scientific Paradigms; Science; Social Epistemology

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