**Positivism: to what extent does it aid our understanding of the contemporary social world?**

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**Abstract** There is a stereotypical belief among many researchers that the social world is complex in nature, and it cannot be investigated by employing a positivist approach. While the extant body of literature mostly support this notion, this brief theoretical paper, however, presents some critical arguments against this and goes onto claim that positivism also aids our understanding of the contemporary social world to a certain extent. It has been argued that the quantifiable methods of the natural sciences are also appropriate for studying the social world in some cases, such as large-scale social surveys and cross-country social research. To begin with, a critical commentary on the history of positivism is provided and the essence of positivist epistemology in exploring different elements of the social world is then dis- cussed. Finally, the paper establishes that both positivism and interpretivism can be seen as appropriate to some level of analysis of meaningful social action. The former is most suited for large-scale social surveys or for providing descriptive information about the social world while the latter is more appropriate to understand the complex actions of social members and to capture the multiple realities of the society.

**Keywords** Positivism Quantitative research Social science Social research Contemporary social world

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# 1 Introduction: an overview of positivism in sociology

‘Social contacts with neighbours have declined over a ten year period and that markers of residential, physical and virtual mobility are associated with neighbourhood social ties, albeit less dramatically than might have been expected’1

1 Knies ([2013](#_bookmark23), p. 446).

‘For all ethnic minority groups in Britain, the propensity to intermarry is higher in the second generation than in the first’[2](#_bookmark0)

‘The greater the percentage of radio time devoted to country music, the higher the incident of white suicide; black suicide was unrelated to country music. The effect is independent of divorce, southernness, poverty, and gun availability’[3](#_bookmark1)

All three statements mentioned above are based on findings from quantitative research that is frequently used these days to present useful facts about the contemporary social world. It gives us a clear indication that despite facing many criticisms from the advocates of interpretivism (e.g. Max Weber), positivist approaches (e.g. Auguste Comte’s sociology and later Emile Durkheim’s naturalism) to investigate different issues of the social world still persist, as it is believed that statistical work done in the social sciences are based upon the positivist view of science ([Keat 1979](#_bookmark22)). This brief theoretical paper argues that positivism has influenced the development of the social sciences and aided our understanding of the social world to a certain extent. The first part discusses the origin of positivism and gives a critical commentary on its key features. The second part discusses the contribution of positivism in investigating contemporary social issues and in contrast, also summarises different arguments against it.

It would have been helpful if we could begin this paper by providing a clear and concise definition of the term ‘positivism’ in sociology but, unfortunately, this is not possible, since it has been and continues to be employed in varied ways ([Gordon 1991](#_bookmark15)). Positivism in sociology was first introduced in the beginning of nineteenth century and since then the approach has gone through several stages of evaluation and experienced many noteworthy alterations, though many core elements remained at its heart ([Crotty 2003](#_bookmark11); [Zammito 2004](#_bookmark37), pp. 6–8). According to Baert and Rubio ([2009](#_bookmark6)), there are at least three phases, the first referring to the nineteenth-century positivism of Auguste Comte and his followers (e.g. Herbert Spence and Emile Durkheim), the second to the logical positivism as developed in Vienna during the early twentieth century and finally the deductive-nomological model of Ernest Nagel and Carl Hempel of the mid-twentieth century (not discussed in this paper). Comte’s influence in shaping the positivist self-understanding of the social sciences extended largely through Spencer in England and Durkheim in France ([Delanty 1997](#_bookmark13)). Both of them count amongst those nineteenth-century intellectuals who were sympathetic towards the central features of Comte’s positi[vism while keeping a critical distance towards Comte’s execution of it](#_bookmark6) (Baert and Rubio [2009](#_bookmark6)). Since analysing the overall historical background of positivism is beyond the limited scope of this paper, therefore, our discussion mainly concentrates on the main features of positivism developed by Comte, Durkheim and logical positivists.

The nineteenth-century French philosopher Auguste Comte (1798–1857) is generally recognised as the inventor of both ‘positivism’ and ‘sociology’. Comte was concerned about the fact that accounts of human mental and social life were languishing in the pre-scientific, metaphysical stage, when astronomy, physics, chemistry and biology all, as he argued, arrived at the scientific stage. So he thought the social sciences should also concentrate on scientific laws rather than contemplation, and for that he wanted to build a methodology based on facts rather than assumption ([Benton and Craib 2001](#_bookmark7)). Comte stressed that science consisted of precise and certain method, basing theoretical laws on sound empirical observation. For him, social sciences were kin to the natural sciences, sharing the same epistemological forms ([Hughes and Sharrock 1997](#_bookmark21)). In order to develop universal laws of social science, Comte

1. Muttarak and Heath ([2010](#_bookmark27), p. 275).
2. Stack and Gundlach ([1992](#_bookmark29), p. 211).

seriously took the question of how to collect data in order to test theories. According to Turner ([2001](#_bookmark32)) p. 33–34, his discussion of methods presented a case for four basic method- ological strategies. Comte’s *first* strategy is observation and he considers social phenomenon as ‘things’ or ‘social facts’. When viewing the society as a ‘thing’ or ‘fact’, observations stay away from biased moral judgement and instead focus on the static and dynamical properties of social forces. His *second* strategy is experimentation of social facts. He argued that soci- ologists could understand the general functioning of society by observing social pathologies just like physician can learn about normal body functioning by observing diseases. How- ever, as [Turner](#_bookmark32) ([2001](#_bookmark32)) argues, this view of Comte follows from his rather limited view of experimentation. Comte’s *third* strategy is comparison, where he had a biological view of comparative anatomy between societies. By such comparisons, it becomes possible to see the differences across various social forms (e.g. what is absent and present, similarities and dissimilarities, etc.); and from these types of comparisons, knowledge about the fundamental properties of the social world of humans would be revealed. The *final* methodological strat- egy proposed by Comte is historical analysis, which is a variant of comparative method. In looking at societies over time, Comte argued, their dynamical qualities are revealed and it is these that will be formulated into laws of human organisations.

Comte’s positivism was based on some key features, such as reality consists in what is available to senses; philosophy, while a distinct discipline, is parasitic on the findings of science; the natural and human sciences share common logical and methodological principles; and there is a basic difference between fact and value, science deal with the fact and the value belongs to an entirely different order of discourse, which is beyond the remit of science ([Hughes and Sharrock 1997](#_bookmark21)).

After Comte, very few social thinkers willingly called themselves positivist, and there are evident differences between his views and those of others to whom the label has since been applied ([Giddens 1974](#_bookmark16)). Although not an entire positivist, but Emile Durkheim (1858–1917) definitely shares some important features in common with other positivists of that time. In his classic work on suicide ([1896/1952](#_bookmark14)), he drew on a vast array of statistical sources to show that there were consistent patterns in suicide rates. He used a series of arguments to establish that society is a reality in its own right and showed evidence that there is an order of facts, social facts, which are distinct from facts about individual people and their mental status, or biological characteristics ([Benton and Craib 2001](#_bookmark7)).

Durkheim was the first sociologist who shared most of Comte’s ideologies about posi- tivism, but carefully rejected as bordering on the metaphysical many of Comte’s pronounce- ments about the [laws of the historical progress of knowledge. In significant respect, as](#_bookmark21) Hughes and Sharrock ([1997](#_bookmark21)) mention, Durkheim’s work builds a bridge between the nineteenth cen- tury and the twentieth. He acknowledged the fact that society predominantly consisted in a collective moral consciousness that was expressed in religion, in laws, in the division of labour and in institutionalisation itself. But ironically, like a true child of positivism, Durkheim wanted to show the fact that society was primarily a moral reality did not detract from idea that it should be studied by the same methods as those of the natural sciences. Durkheim argues that social facts are ‘things’ and they are external to us, which could be (or should be) studied objectively. He further argues that society or societal facts must be observed from the outside dispassionately and objectively as if one were examining physical facts. Undoubtedly, this idea about the social world was not the perfect one, but he definitely stands out in the history of modern socials science because of his attempt to legitimate a conception of social science consistent with the prevailing image of natural science. Even though Durkheim’s perception about the social world had received criticisms, but his stress on laws and casual explanation, objectivity and rigorous method not only gave authority to

his own substantive investigations, but also served (and still serving) as a base for many important social research ([Hughes and Sharrock 1997](#_bookmark21)).

The term ‘logical positivism’ was first coined in the Vienna Circle began in the early 1920s. Moritz Schlick is generally considered the founder of the club. The logical positivists in the Vienna Circle believed they had discovered the true task of philosophy, which is to analyse knowledge statements with the aim of making them clear and unambiguous. Logical positivists asserted that (among many other things, for details see [Hughes and Sharrock](#_bookmark21) [1997](#_bookmark21); [Friedman 1999](#_bookmark17)) only meaningful statements were to be given scientific consideration and accorded the status of knowledge claims. Meaningfulness or cognitive significance was strictly defined as being attributable only to those statements which are either analytic or synthetic ([Caldwell 1980](#_bookmark8), p. 55). In present time, most of the quantitative researchers of sociology tend to follow ‘logical positivism’ as opposed to following Comte’s version, which many consider as an ill-equipped form of positivism ([Ackroyd 2004](#_bookmark2)).

# Positivism and its essence in contemporary social research

Though Comte’s explicit doctrines of social science have little more than historical interest these days, but his spirit, carried forwarded by Spencer and Durkheim is still, represented in the style and manner of some parts of the social sciences ([Hughes and Sharrock 1997](#_bookmark21)). Comte’s strategies may seem rather simplistic now, but he was nonetheless making strong case for a science build upon the formulation and testing of general theoretical principles through the unbiased assessment of data ([Turner 2001](#_bookmark32)). Since the earlier days of Comte’s sociology, the term ‘positivism’ has been used extensively to characterise approaches to social science which have made use of large data sets, quantitative measurements and statistical methods of analysis ([Benton and Craib 2001](#_bookmark7)).

There are numerous valid reasons for positivists to follow the natural sciences as a role model for work in the social sciences. Positivism provides an enormous cultural authority to social scientists, which were previously possessed only by the scientific experts who used to provide regular advice to governments on difficult matters of technical policy-making, from food safety to building standards and so on. Positivist approaches enable social scientists to present their disciplines as sufficiently and rigorously as the scientific experts, which provide them the platform to make strong claims about the reliability, objectivity and usefulness of the knowledge they have to offer ([Benton and Craib 2001](#_bookmark7)). In concurrent time, policy-makers consider social research as an important source of knowledge and in most countries official statistics are collected on virtually all aspects of social and economic life—on patterns of ill- health and death, on marriage and divorce, on unemployment, income differentials, attitudes and values, consumption patterns and so on. Social scientists are employed to analyse and interpret these vast amounts of information as well as to give advice on policy implications ([Benton and Craib 2001](#_bookmark7), p. 26).

Social research’s most used research instruments such as survey, the questionnaire, statis- tical models, the idea of research as hypothesis testing and theory corroboration, to mention but a few, all embody the formative influence of positivism ([Hughes and Sharrock 1997](#_bookmark21), p. 24). Durkheim, although contributed little to the production of statistics, but his ingenious use of descriptive statistics made a large contribution to seeing how such materials could be used in sociological analysis as indicators of the nature and extent of social conditions ([Halfpenny 1982](#_bookmark18)). It was Durkheim who merged descriptive statistics and the abstract, philo- sophical strands of nineteenth-century positivism. His book Suicide (1896) is often taken as the exemplar of the positivist study of society, making central the collection of and commen-

tary on quantitative data about society to demonstrate how various social forces encouraged or checked suicides ([Halfpenny 2001](#_bookmark19)). So it would be safe to say that the statements we presented at the beginning of this paper are mostly based on Durkheim’s view of positivism (i.e. using statistics to explain social facts).

The truth in positivist inquiry is achieved through the verification and replication of observ- able findings concerning directly perceivable entities or processes ([Clark 1998](#_bookmark10)). Advocates of positivism avoid using language like interpretivists, who relies heavily on the subjective meaning of the social world. Therefore, their language seems to have significant politically and morally evaluative connotations. Positivists eliminate these to avoid the dangers of not meeting the requirement of value-freedom, which is utterly essential in modern day social research ([Keat 1979](#_bookmark22)). But there are questions that arise from such approaches; firstly, can we know all aspects of the social world by employing a purely positivist approach? Secondly, how logical it is to consider society as an objective reality? And finally, is it too unrealistic to examine the extreme complexity of social phenomenon by using a value-free and scien- tific approach? We will look into these questions in the following section as we discuss the limitations of positivism in social inquiry.

# Criticisms of positivist approaches in social research

Positivism has provided analytical tools and helped to develop intervention and evaluation methods that were more effective than those previously used in social research. Further- more, this framework certainly has helped to define principles and procedures carefully into clear objective description, and has allowed control and analysis over specific variables the researcher is interested in. But to what extent such approach can aid our understanding of the complex social world?

Rodwell ([1987](#_bookmark28), p. 231–246) argues, positivist perspective is not particularly suited to probing and understanding the complexity and variability of the socio-behavioural phenom- ena. Its attendant reductionist posture with its focus on objective reality excludes empathic understanding of the social phenomena from individual point of view. As a result, positivism was the target of strong criticism during the 1970s, when many social scientists and human- ists started to gather under new banners of structuralism, hermeneutics and phenomenology ([Alvesson and Sköldberg 2009](#_bookmark3)). They expressed concern that the idea of doing research by following a scientific model can lead to the dismissal of research as valuable tool in under- standing the rich complexity of the social world. For them, the scientific approach which positivism espouses was inadequate when it comes to learning about how people live, how they experience the world, how they adjust with it, how they aspire to change it, and so on ([Antonesa et al. 2006](#_bookmark4)).

Anti-positivists or anti-naturalists believe that human actions are complex and have mul- tiple meanings, and the blindness of quantitative techniques may encourage the belief that complex actions can be treated as reducible to some simple behaviour, as if each action had the same meaning regardless of context ([Sayer 1992](#_bookmark30)). They further argue that the concept of ‘variable’ used so often in modern quantitative social research, also has serious flaws, for instance, variables can only register quantifiable change, not its cause ([Sayer 1992](#_bookmark30)) and such quantitative approach to explain social world may produce superficial information ([Coffey](#_bookmark12) [1999](#_bookmark12)).

The advocates of positivism couldn’t justify their definition of ‘reality’ based on obser- vation either. They ignored the fact that if there are (and there must be) hidden patterns, underlying rule formations, which govern the observed parts of reality, and whose explo-

ration can contribute to explaining these observed parts, then this should also be a legitimate area of social research. It is because of these limitations of positivist approaches to social research, another way becomes more reasonable. Rather than beginning with survey-based measurements of large amount of data, or with guesses of what the connections are between such data, anti-positivists began to carry out intensive studies of a small number of cases in order to retrieve through analysis the underlying patterns that are arguably reflected in the surface structures. These lines of thought have been held by post-positivists ([Hanson 1958](#_bookmark20); [Toulmin 1953](#_bookmark31)), structuralists ([Chomsky 1968](#_bookmark9); [Lévi-Strauss 1962](#_bookmark24)) and dialecticians ([Marx](#_bookmark25) [1967](#_bookmark25)) ([Alvesson and Sköldberg 2009](#_bookmark3), p. 19).

Ethnographic, subjective, qualitative, hermeneutic and humanistic are some of the approaches that have developed to overcome the shortcomings of positivism in social research. Advocates of these approaches claim that the normative scientific position is unattainable and destructive, and the empiricist promise of clarity, simplicity, certainty and scientific and professional acceptability is sterile and bankrupt ([Rodwell 1987](#_bookmark28)). They also argue that objectivity in social research is nothing but an illusion, as it is impossible to remove the influence of the researcher in the data gathering process ([Coffey 1999](#_bookmark12)).

The key element of positivism, which is extending the methods of the natural sciences to the study of human social life, face strong arguments from people like Max Weber, Peter Winch and Jurgen Habermas. The view that there is such a thing as scientific study of society, in the same sense as natural processes can be studied scientifically is often termed ‘naturalism’, Weber, Winch and Habermas are, in this sense anti-naturalists ([Benton and Craib 2001](#_bookmark7)). Max Weber (1864–1920) in particular stands out among many others that oppose positivism in social research. He stressed that if the social sciences have their specific object, then meaningful social action also have their own specific methodology. This Weber described as interpretive understanding—hence the use of ‘interpretivist’ to describe this approach.

Weber was ahead of his time, in particular in the way he broke with the positivist assump- tion that it is possible to reach a neutral vantage point. He recognised that researchers cannot ‘step outside history’ and always draw on a number of culturally embedded presuppositions in order to make sense what they are studying ([Baert 2005](#_bookmark5)). Weber’s discussion on values in social science (see [Weber 1949](#_bookmark34)) is rather sophisticated, but he certainly talks about the necessity of ‘value freedom’ and sociologists at least often taken him to mean something equivalent to the more positivist notions of objectivity in the natural sciences. But a careful reading of Weber’s work indicates that social science or any other sort of science is bounded on every side by values penetrate to the heart of the scientific enterprise ([Benton and Craib](#_bookmark7) [2001](#_bookmark7), p. 81).

Weber did not go far enough to defend his arguments on value freedom in social research. His concept of value freedom was problematic, and he did not fully explore the relation- ship between types of cognitive interests and methodology ([Baert 2005](#_bookmark5)). Unlike Comte and Durkheim, he did not regard sociology as capable of furnishing a scientific system of morals. Nor did he consider that any science might be able to do so, now or never. Values judgements, in Weber’s view, are irredeemably subjective ([Gordon 1991](#_bookmark15)).

# 4 Concluding remarks

The only common feature of the foregoing discussion on various alternatives of positivism is: there is no neural knowledge - divisions between objectivity and subjectivity, private or public knowledge, scientific and emotional knowledge, all are socially constructed. Today many would criticise Comte for developing an ill-equipped version of positivism in sociology,

but no one can deny his contribution as a theorist to our understanding of the social world. Comte could not present how society works, and his view of the social world was not the perfect one either, but he definitely sets an agenda for Spencer and Durkheim and therefore, we should remember him for his forceful advocacy for scientific sociology. As [Turner et al.](#_bookmark33) ([2011](#_bookmark33)) says ‘no one has done better since Comte first publish his positive philosophy’. So we could say positivism, although challenged, is still the dominant public model for research. The mechanical view of the natural sciences continues to dominate the public perception of science, and in turn it affects views of what social research should be ([Antonesa et al.](#_bookmark4) [2006](#_bookmark4)).

The history of positivism in sociology is so complicated and long that it is impossible to cover all arguments that support and oppose this approach in understanding the social world. There are many people involved in the debate of scientific and social inquiry, the list started with Comte, Durkheim and Spencer (key advocates of positivism in social science) and fol- lowed by Weber, Popper and Kuhn (critics of earlier positivism) and ends with Gadamer (hermeneutics) and Bhaskar (critical realism—the latest epistemology that combines both positivism and interpretivism) and many others. So based on some carefully selected liter- ature, this paper only summarises different arguments of the key scholars of positivism in sociology.

To sum up, we can say that both positivism and interpretivism can be seen as appropriate to some level of analysis of meaningful social action. Weber’s idea perhaps most applicable to understand complex issues of the social world, for example, things like why suicide rates are climbing and what motivates rural people to migrate into cities and things like that. Comte and Durkheim’s idea of positivism and scientific social inquiry is most suited in large-scale national social survey or for providing descriptive information about the social world (like the three statements we mentioned at the beginning) ([Benton and Craib 2001](#_bookmark7)).

Positivism aims to obtain objective facts of the social world and this is important in many cases, especially in business and management research, where sometimes there is no alternative to gather information without a positivist approach (e.g. see [Whitley 1984](#_bookmark36)). However, complete objectivity is impossible and subjectivity should also be accepted as an inherent part of human nature. In fact, it could be argued that decline in the popularity of positivism mainly lies in its sole reliance on objective observation and not accounting for the same behaviours being generated by quite different motivations (May and Williams 1996). But one thing is sure that both positivists and interpretivists are concerned with trying to enhance their understanding of the world, some parts of that world could be studied better objectively, some may require a more subjective approach ([Weber 2004](#_bookmark35)). Of course positivism aids our understanding of the certain aspects of social world that has similarities with scientific world or could be studied in an objective and value-free manner, but this is only one half of the social world and the other half seeks to understand and interpret the human actions, where positivism is incapable as it cannot provide the underlying reasons for action.

Finally, a discussion on the relationship between sociology and philosophy is really a never ending process. For McIntosh ([1997](#_bookmark26), p. 208–209), sociology had its birth in the great philosophical doctrines, it has retained the habit of relying on some philosophical system and thus had been continuously overburden with it. It has been successively positivistic, evolutionary, idealistic, when it could be simply sociology!

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