

Criticisms of the positivism approach



**ASSIGN
BUSTER**

This essay aims to explore and assess the criticisms that have been levelled at the application of ‘positivism’ within human geography. It will become clear that most of these criticisms follow two interlinked themes: The idea that such scientific and quantitative approaches rely on generalisation and are shallow by nature, and that positivism’s objective approach tends to refuse acknowledgement of individuals and their experiences. However, despite the numerous flaws of positivist approaches, it would be naive to ignore the useful aspects of their nomothetic direction. This paper will conclude that the divide between the positivist and non-positivist (humanistic, radical and Marxist) geographers should not be seen as a weakness in the discipline, but rather as Geography’s main strength. As Ackerman (1958 p. 74, cited in Johnston, 1997) noted, most geographical research has dealt with much generalisation, yet “it has given meaning to other research efforts which succeeded it. In this sense it has a block-building characteristic”. (p. 17). The philosophical divide is therefore in fact constructive. Non positivist approaches compliment the generalisations of the previous more positivist studies through expansion and critique. Before immersing into the stark debates inherent of these criticisms though, a brief history of positivism is necessary so that the critiques that follow can be understood on a contextual basis.

Positivism is a philosophical approach that can be applied to social sciences. The approach was founded upon the belief that “phenomena of the human social world are no different from those of the natural inorganic and organic world” (Unwin, 1992 p. 31). As a result, the “father of positivism” (Kitchin, 2006 p. 20), Auguste Comte felt that social phenomena should be studied

using more scientific methodologies. Kitchin (2006) explains that this new approach, first presented in Comte's mid 19th century writings, focused on facts and truths that could be empirically proven and observed. Indeed the reasoning behind the coining of the term 'positivism' was the approaches aim to prioritise actual truths. Comte demanded objective studies using replicable methods so that common laws could be generated, he was consequently dismissive of metaphysical and normative questions as they were seemingly impossible to answer from a scientific standpoint.

As positivism grew in influence it branched into two main directions; 'logical positivism' and 'critical rationalism' (falsification). Logical positivism, a product of the Vienna Circle in the 1920s, revolves around the idea that a hypothesis should be set and vigorously tested until it becomes statistically true (Johnston et al, 2000). Popper (1976) on the other hand suggested the ideal that something is only true until it is disproved, therefore academics should be aiming to nullify hypotheses. In turn this becomes a more objective method as you are not biased toward satisfying the criteria within your own hypothesis. Of course there are flaws with both of these ideals. It is impossible to prove many things beyond a doubt, especially when dealing with processes as complicated as those applied to human geography; and not everything can be falsified, it is for example not possible to falsify something that cannot be directly tested. Nevertheless, these two strands of positivism played an important role in the application of the philosophy within human geography.

Whilst positivism set the groundwork for the debates that are to follow, the 'quantitative revolution' acted as the trigger. In the 1950s Geography's "low

reputation as a science” led to an increase in positivist and quantitative approaches to human geography as the discipline attempted to legitimise itself by producing laws based on observational evidence (Unwin, 1992 p. 106). Indeed geography had shifted dramatically from a traditional idiographic descriptive approach to that of a nomothetic, thriving on evidence and statistics. Of course both approaches are still present in contemporary geography, yet the rise in positivist research is undeniable. This of course leads us to the criticisms that one half of the geographical divide have levelled at their positivistic adversaries.

As outlined in the introduction, most of the criticisms aimed at positivism in human geography are loosely based around its shallow nature, sweeping statements and lack of normative questions. The first major critique of the positivist approach is its over tendency to focus on space, this has been termed ‘ spatial fetishism’. Livingstone (1992, p. 328) goes as far as to suggest that “ Geography’s confrontation with the vocabulary of logical positivism... was a post hoc means of rationalizing its attempt to reconstitute itself as a spatial science”. Geography should be covering more than just space and scales, indeed it is called human geography as its intent should be to uncover peoples experiences and interactions with the world and each other. It is certainly easy to criticise positivism if its purpose was to prioritise ‘ spatial science’ over other geographies. The progress of the discipline would certainly be limited if the majority of research was based only on quantitative spatial analysis and modelling. Sack (1980) agrees that positivistic geography’s spatial fetish has been at the expense of all other aspects of geography.

Collinge (2005) argues that too much focus on 'distinctive' spatial relations to society and social change can be deconstructive. He applauds and calls for a continuation of critique against geographies current understanding of space and society, instead suggesting that interactions between the two (the kind that can not be covered with mass generalisations) should be studied more closely with less focus on the 'distinction' between the two dimensions. Whilst this effort by Collinge and indeed new feminist geographers is certainly noble, it is a relatively weak critique as it offers no real solution. Even so, as Collinge himself inferred, critique can actually be constructive, it does after all lead to further research and in turn further knowledge of the world.

Continuing along the critique of positivist geography's spatial fetishism, Sack (1980) also claims that this focus on space actually serves to isolate space from time. This is yet another critique that suggests positivism to be deconstructive. Dynamism is at the heart of geography, particularly the human side. Quantitative studies can be taken, correlations and patterns can be observed, but the results are always going to be inherently subject to change. Indeed positivisms nomothetic approach aims to produce laws, but does not take all things into consideration. This is integral to Harvey's (1973) argument as he claims that positivism ignores factors such as political and sociological shifts that can only be studied qualitatively. However, that does not mean that positivism doesn't belong in geography. Even if we were to assume that positivism were only interested in spatial sciences, it is still a useful philosophy, as is quantitativism a useful tool. In a subject as dynamic as geography qualitative methods alone could not sufficiently understand

the world. Whilst positivism is flawed and overgeneralising, and could even be said to be a form of spatial fetishism, quantitative research can produce quick results. This of course is vital in what is an ever changing landscape. To revert to the two main themes of critique outlined in the introduction, positivist studies are, or at least were, shallow natured both in terms of what, and how they analysed phenomena. As Spate (1960) explained, there is a need for quantitative geography, but the knowledge that is gained cannot be expressed purely in number form.

It is starting now to become clear that the philosophical divide that exists within geography may not be such a bad thing after all. Positivist studies are acquiring the raw facts, all be it with at times a generalised attitude, but critics are expanding upon these facts, thus engineering a better working knowledge. Interestingly though, many of these criticisms are loosely based around the logical side of positivism. The potential usefulness of falsification (despite its flaws) in an ever changing subject is intriguing, in which case, truths need not necessarily always be truths.

A second set of critiques target positivism's laissez faire attitude towards its research subjects. Perhaps the key figurehead behind this critique is David Harvey. Even in Harvey's 'Explanation in Geography' (1969, p. 107), a book that wasn't exceptionally radical being one of his earlier works, saw that it would be foolish to suggest that "all our outstanding substantive problems will be solved merely by the touch of the glittering wand of scientific explanation". By 1973 Harvey had become disheartened with the over reliance of positivist approaches within geography, not just because it so often failed to ask why things were as they were, but namely due to its

neutrality and hence its inability to solve the problems that it so often uncovered. It was this silence and ineptitude “ which essentially explain(ed) the necessity for a revolution in geographic thought” (Harvey, 1973).

Harvey’s ‘ revolution’ namely resulted in the creation of both Marxist and Radical geographers (Kitchin, 2006). Indeed the effects of this evolving geography are still felt today with the expansion of feminist geography amongst other groups.

Once again we reach the divide within the discipline. To quickly summarise and reiterate here, the dualism within geography and the critique of positivist approaches actually went as far as to create new branches of geography, something that can only be beneficial for research purposes as the subject has evolved to become more diversified than ever. Surely then the hunger for knowledge within geography is actually as great as it has ever been. Whilst Kwan and Schwanen (2009) argue that this antagonistic divide is only hindering progress, I would argue that based on this historical evidence, the critique between the two has actually helped geography evolve into a much more complex, and consequently more knowledgeable discipline.

To return to this set of critiques though, it could be said that Harvey’s earlier quantitative interests (present in Harvey, 1969) only serve to show Harvey up as a hypocrite considering the radical reversal in his views. Indeed Harvey himself stated that “ by our theories you shall know us” (Harvey, 1969 p. 486). Of course if this were the case then it may serve to discredit his works. On the contrary, it actually shows the true degree to which he was discontented by the general ignorance of positivistic geography. His

experience within quantitative studies actually gives extra validity to his arguments.

The last of the main attacks on positivism targets the objectivity that is underpins the philosophy. Goodwin (2005) discusses the advent of humanistic geography, yet another offspring from the critics of positivism and its scientific and nomathetic approach. Humanistic geography aims to uncover the importance of ideal, cultures and languages within local geographies. Humanists argue that people cannot be modelled using sweeping scientific methodology, indeed independent thought prevents that, not to mention the fact that ‘ ideals’ cannot be mapped quantitatively. Ley (1974) argues that such phenomena can be mapped qualitatively though, actually visiting the areas that you wish to research. Upon researching geographies of gang culture Lay suggested that “ graffiti markings represent the language of space for members of the street gang culture” (1974 p. 218, cited in Goodwin, 2005 p. 55). From a critical standpoint though, humanist geography can only ever achieve so much. There frankly aren’t enough geographers, nor is there sufficient time to absolutely understand aoll of the emotional attachments and ideas that humans have relating to place, space and nature. To go back to an earlier point, geography is inherently dynamic. Positivism, if nothing else, can produce a relatively quick scientific (all be it shallow) representation of the world. Even if these ‘ laws’ do isolate time from space, the studies can be repeated so that new laws can be constructed. It is by no means perfect, but it is pragmatic.

An example of where mass information is required is in government. With governments usually in power for just 4-5 years in the UK, actual raw figures

are necessary so that policies can be planned and implemented within the party's term time. Such data is often acquired and analysed by positivist geography academics (Rhind, 1981). Of course we have to be careful not to rely solely on such quantitative studies or else important issues will go unnoticed and thus unsolved, but thanks to the evident divide, there is little chance of positivism ever totally dictating geographical research.

It has become apparent that there are many critics of positivism and its application to human geography. The critiques themselves generally target the philosophies objectivity, generalising nature and its shallow desire for fact alone. Yet there is a need for positivistic and quantitative approaches. These often sweeping studies that assume homogeneity are flawed in many ways, but they deliver actual results that are necessary for many institutions, furthermore they can quickly respond to changing laws within a dynamic environment.

In conclusion it is clear that positivist approaches have become a necessary part of research within human geography, but the humanist side cannot be ignored. Much more can be learned about the world than numbers alone can ever represent. The need for a balance between quantitative and qualitative studies is obvious. Where Kwan and Shawanen claim that the confrontations between the two strands are detrimental to geography's progress, it should be contested that in actual fact the divide in opinion has been beneficial to the discipline. Critique and expansion have led to the creation of new divisions and understandings of geography, hence, wider knowledges.