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## **THEORY AND EVIDENCE IN QUALITATIVE RESEARCH**

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**Abstract**

This article identifies and explores some unresolved problems surrounding the role of theory and evidence in qualitative research. It begins by distinguishing among various meanings of the term 'theory', focusing in particular on the view that portrays it as consisting of specific explanatory principles. An ambivalence towards theory on the part of qualitative researchers is explored, showing how the influence of the positivist view persists despite explicit rejection of it. The problems surrounding non-positivist reinterpretations are discussed, notably the attempt to integrate theory with description. The focus of the paper then turns to the concept of evidence. Here again a tendency for qualitative researchers to inherit an empiricist approach is identified, and the implications of abandoning it are outlined. Finally, it is argued that theory must not be seen as the only or even as the most important product of qualitative (or indeed of quantitative) research; several types of product are possible, each placing different requirements on the researcher.

The time when qualitative research was an apparently unified movement ranged in opposition to quantitative research has largely gone. Having now established a secure place in many fields, qualitative researchers are free to disagree amongst themselves; and that freedom is being fully exercised.<sup>1</sup> In this paper I want to address what seem to me to be some critical, and as yet unresolved, issues in the methodology of qualitative research, relating to the concepts of theory and evidence, and the relationship between them. One implication of my discussion will be that the differences in philosophical presupposition that are often thought to exist between quantitative and qualitative research are less clear and sharp than is commonly thought.

### The concept of theory

There can be few terms in the social sciences that are as systematically ambiguous as the word 'theory'. We can get a sense of this ambiguity by thinking of other terms with which it is usually contrasted. There are two main ones. One is the contrast with practice. We talk, for instance, about what should be done in theory as compared with what has to be done in practice. We also refer to theory as guiding or even transforming practice. In these terms, theory may be seen as unrealistic; alternatively, it may be seen as redeeming practice, as rescuing it from expediency or ideology. Here, the term 'theory' seems to indicate some general, normative principles that at the very least might guide our practice in particular circumstances. This is the sense of the term often used in references to educational theory, for instance.<sup>2</sup>

The other major contrast that gives meaning to the term 'theory' is the one with which I will be primarily concerned: that between theory, on the one hand, and evidence or data on the other. In this context, the term 'theory' refers to general principles that provide explanations for empirical phenomena. And these are factual rather than value principles. The relationship between this sort of theory and social and political practice is more tenuous than in the case of normative theory. It is often claimed that explanatory theory can help us to make sense of the world but cannot tell us what goals to pursue or even how best to pursue them, since these questions involve values.

It is worth noting that some have tried to integrate the two senses of the term 'theory' that I have distinguished here. This is most obvious in approaches influenced by Hegel and Marx, though one finds similar views in some feminist writing. Marxism and feminism are often seen as comprehensive worldviews that provide both resources for explaining events in the world *and* those necessary to evaluate events and decide what is to be done. In my view, however, it is essential to distinguish between the two sorts of theory I have identified. Integrating them not only denies the distinction between factual

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<sup>1</sup> For recent examples, see Eisner and Peshkin 1990 and Guba 1990.

<sup>2</sup> For a useful discussion of disagreements about the nature of theory in this field, see Hirst 1983.

and value arguments, which I believe is sound and important, it also relies on a teleological view of nature and/or history that is indefensible.<sup>3</sup>

I shall focus here, then, almost entirely on the second, factual sense of the term 'theory', what I have referred to as explanatory theory, whose character is often understood as contrasting with that of evidence or data. However, adopting this relatively narrow focus still does not resolve all of the ambiguities that surround the term 'theory'. For example, there remains a tension between the concept of theory as referring to general approaches to understanding society---such as functionalism, conflict theory, symbolic interactionism, ethnomethodology, postmodernism etc.---and that referring to a much more specific set of explanatory principles chosen to explain some particular type of phenomena.<sup>4</sup> For the rest of what I have to say I will focus on the narrower of these two senses of the term 'theory', where it refers to a specific set of explanatory principles rather than a theoretical approach or a worldview. However, even this does not leave us with a clearly defined, and widely agreed, conception of what theory is. And this is especially true in the context of qualitative research.

### Theory and qualitative research

An essential starting point in understanding the concept of theory, even in relation to qualitative research, is positivist philosophy of science. Not surprisingly, many of the methodological ideas of sociologists are the result of philosophical influences, albeit operating after some time lag and filtered through sociological interpretations of various sorts. At one time the philosophy of science was largely dominated by positivism, a central element of which was the contrast between theories, on the one hand, and observations, on the other; where theories were to be induced from and/or subjected to crucial test against observational statements. Observations were the rock on which theories were founded, or (changing the metaphor) on which they foundered. From a positivist point of view, theories state conditional relationships among variables that have universal scope; and of course the model for this conception of theory is natural science, especially physics. An example of such a theory is Boyle's law, which states that the volume of a gas in an enclosed space is inversely proportional to the pressure on it, given constant temperature. Here, a precise relationship is stated between two variables, holding universally under certain conditions.

There was general agreement among positivist philosophers of science that this was the characteristic *form* of theories or laws.<sup>5</sup> And there was general agreement that evidence or data consists of descriptive statements about particular phenomena existing in

<sup>3</sup> See Hammersley 1992a ch6 and 1992b for an elaboration of this argument.

<sup>4</sup> There is an interesting issue here about the relationship between qualitative research and different theoretical approaches. It has sometimes been suggested that there is a unique relationship between qualitative work and a particular sort of theoretical approach, implying that qualitative researchers cannot legitimately adopt any other theoretical perspective, or that proponents of that particular theoretical perspective cannot legitimately adopt any other methodology. Ironically, though, we find such arguments on behalf of several different perspectives, including for example both functionalism and symbolic interactionism. I think we can take this to indicate that the relationship between theoretical approaches and methodology is actually fairly weak.

particular time-place locations. They assumed that there was a realm of observations, whether sense data or physical descriptions of the world, that were indubitable; what are sometimes called 'brute facts'.

Something like this philosophical perspective informed much sociological work in the 1940s, 50s and 60s, especially quantitative research, and it is by no means entirely absent today (for a history, see Bryant 1985). Having said that, it is important to recognise that neither the notion of theories as laws nor that of brute, immediately given data is restricted to positivism or to quantitative sociology.

In the past many qualitative researchers, for example many of those associated with the Chicago School of sociology in the 1920s and 30s, regarded the central goal of sociology as the discovery of universal laws (Harvey 1987:28-9). Today, of course, few, if any, qualitative researchers believe that there are sociological laws. Yet many still talk about their research as involving analytic induction or the hypothetico-deductive method; and these are research strategies which assume the existence of such laws, indeed which are designed to discover sociological laws (Hammersley 1989 ch8).<sup>6</sup> In other words, the influence of the notion of theories as laws persists amongst qualitative researchers despite the fact that many of them would not wish to defend it.

Where qualitative researchers explicitly reject the positivist conception of theory, they sometimes seem almost to reject the very idea of theory in favour of description. Often this is closely associated with denial of the claim that human behaviour is simply the product of theoretical variables, whether psychological or social, an idea that is central to quantitative social research (for a recent exposition see, for example, Hage and Meeker 1988). Qualitative researchers reject this on the grounds that it fails to take account of the complex, processual, indeterminate character of social life (see, for example, Blumer 1969). Another reason qualitative researchers reject the positivist conception of theory is that it is seen to imply social processes going on behind the backs of participants, such as latent functions (see Merton 1957). Such a view is taken to privilege theory at the expense of the commonsense understandings of the people under study. Indeed, in terms of this sort of theory, which is by no means restricted to quantitative sociology, those understandings may be diagnosed as ideological: as products of the real factors structuring the situation, of which people are unaware, and which may serve to preserve their ignorance. Many ethnographers, by contrast, start from the premiss that participants' perspectives are rational, and in that and perhaps other senses valid, since they rely on local knowledge that may not be available to the researcher. Thus, symbolic interactionists generally take the view not only that the understanding of participants' own accounts is an essential first step in any attempt to explain their

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<sup>5</sup> It is worth pointing out that they disagreed about the status of such laws, for example about whether theories represent processes in the world or are merely useful fictions that help us to understand and predict empirical data. They also came to disagree about whether there is a rigorous means of inducing laws from data or whether the origins of hypotheses are irrelevant to the logic of theory testing.

<sup>6</sup> An example of a qualitative researcher appealing to the hypothetico-deductive method is to be found in Anselm Strauss's book *Qualitative Analysis for Social Scientists* where he describes the grounded theory approach he pioneered with Barney Glaser as the method of empirical science, involving generation of theoretical ideas, deduction of their implications, and the testing of those implications (Strauss 1987:11-12).

behaviour, but also that these accounts must in some sense form the key element or foundation of any explanation:

To understand why someone behaves as he does you must understand how it looked to him, what he thought he had to contend with, what alternatives he saw open to him; you can understand the effects of opportunity structures, delinquent subcultures, social norms, and other commonly invoked explanations of behavior only by seeing them from the actor's point of view. (Becker 1970:64)

On this basis, ethnographers often show great reluctance to question the validity of participants' accounts (or at least of the accounts of some participants, in particular those at the bottom of what Becker calls the hierarchy of credibility: Becker 1970, ch8). Indeed, those accounts may be treated as beyond question, as simply *constituting* particular 'forms of life' whose validity must be taken as given; the task being to describe the culture, or the methods by which it is constituted, as faithfully as possible.

Of course, this is not to say that most qualitative researchers deny theory a role. But it is often not very clear what its role is in their work, or what they mean by the term. I can illustrate this by looking at the common idea that the goal of ethnographic research is the production of *theoretical descriptions* of settings, institutions, cultures etc.<sup>7</sup> The merging of description and theorizing, and the ambivalence which underlies it, are nicely captured in the following quotation:

The analysis of case-study data is essentially concerned with the process of interpretation. That is, the translation of raw data into a coherent portrayal of an institution and of institutional processes. The process of interpretation involves the data coming to stand for and represent a field of reality as the basis for a 'theoretical' (or some other kind of) account of the setting. (Ball 1983:96).

We must ask: what does it mean to say that a description is theoretical? The idea is puzzling. On the one hand, it is not clear how descriptions could be theories. As it is normally used, the term 'description' refers to particulars (objects and events in specific time-place locations), whereas theories are usually held to be about universals (for example, about relations between categories of phenomena that apply wherever those phenomena occur under given conditions). On the other hand, *all* descriptions use concepts and involve theoretical presuppositions. Given this, what sense can we give to qualitative researchers' claims that their descriptions are distinctive in being theoretical?

A related notion is what is sometimes referred to as the 'pattern model of explanation' (Williams 1976). Like the notion of theoretical description, this also reflects a view of theory as constituting a picture of reality. On this view, studies complement one another in much the same way as pieces of a mosaic fit together (Becker 1970:65-6). Here the relationship between studies is that each provides a bit of the total picture (the jigsaw puzzle is the other analogy that comes to mind). Each study provides a description of one part of a city, society, etc. Added together, they give a panoramic view.

<sup>7</sup> These are also sometimes referred to as 'analytic descriptions' (McCall and Simmons 1969) or 'thick descriptions' (Geertz 1975).

I believe that to conceptualise theories as describing the world, so that each study adds another bit of the picture, is fundamentally misleading. The provision of a descriptive account of a particular setting or sequence of events is very different from the development and testing of a theory about some aspect of that setting or sequence (Hammersley 1985). Furthermore, as is well known, one cannot exhaust the description of a setting, there must always be selection; and this will be based, in part at least, on theoretical assumptions, on ideas about what produces what. Many pictures are possible of any set of phenomena, and none is universally privileged. Their relative value depends on our purposes.

The role of the concept of theory in qualitative research is not very clear then. While some researchers rely implicitly on the positivist conception, in general this is not adopted explicitly. Yet the usual alternatives, such as theoretical description and the pattern model, are not convincing. My own inclination is to stick to something like the positivist concept, but to recognise that the explanatory principles used in social research rarely have or need to take the precise form characteristic of some physical laws. They are more in the nature of quasi-laws, and rely on presuppositions about the nature of rational action. Here one can draw on discussions in the philosophy of history, where the issue has been addressed in a much more effective way, though still without any clear resolution.<sup>8</sup>

### Evidence and qualitative research

As we saw earlier, a central element of positivism is the idea of brute facts, and this idea has informed much quantitative social research in sociology. However, it is also to be found in one form or another in the thinking of qualitative researchers. For instance, Herbert Blumer's critique of quantitative method was founded on the argument that this approach does not capture the true nature of social reality; and that this can only be discovered by direct contact with that reality, by what we would today call participant observation or ethnography. His favourite analogy, 'lifting the veil' illustrates this (Blumer 1969:39). Here, though the metaphors are different, there is more than a hint of a bedrock of direct knowledge; albeit one that is not available via positivist methods. Matza's advocacy of naturalism suffers from the same problem. In rejecting commitment to philosophical ideas about scientific method in favour of being 'true to the nature of the phenomenon under study', he necessarily assumes that we have access to that nature independently of philosophical presuppositions (Matza 1969:5). Much the same is true of the writings of Glaser and Strauss on grounded theorising (Glaser and Strauss 1967). Indeed, the very idea of grounding theory in data, of developing it out of data, implies both a clear distinction between the two and the assignment of a certain priority to the latter.

However, the history of the philosophy of science over the past 20 or 30 years has been in large part a rejection of the notion that there is or can be a foundation of

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<sup>8</sup> For a useful overview, see Dray 1964. A discussion of more recent literature, one which compares explanation in history with explanation in economics, is Coats 1989. See also Hammersley 1992 chs 2 and 4.



observational givens against which theories can be tested or from which they can be induced. Observations are always theory-laden, it has been argued (see, for example, Hanson 1958). Equally important, empirical evidence is by no means always the only or ultimate arbiter it is sometimes taken to be, nor should it be. Evidence underdetermines theory. This, of course, was one of the insights provided by Thomas Kuhn in his book *The Structure of Scientific Revolutions* (Kuhn 1970). He showed that natural scientists rely on a background assumptions about the world and judge evidence or data in terms of these presuppositions. In practice, quite often, the relationship between theory and evidence assumed by the positivists is reversed: data are judged in terms of how well they fit existing theory, in other words whether or not they are explainable in terms of that theory. And Kuhn argues that only in very special circumstances do data succeed in challenging paradigmatic assumptions: this only occurs when there are many respects in which those assumptions do not fit the evidence *and* where an alternative set of assumptions is available which explains all that the previous paradigm could explain as well as the anomalies.<sup>9</sup>

This questioning of the role ascribed to evidence in positivist philosophy of science has recently come to influence much methodological thinking on the part of qualitative researchers, in combination with diverse other influences like phenomenology, linguistic philosophy, structuralism, hermeneutics, post-structuralism, and post-modernism. Often, these influences have resulted in the adoption of sceptical, relativistic views of one kind or another, perhaps denying the possibility of producing validated theoretical accounts.<sup>10</sup> It is argued that there are necessarily different, potentially contradictory, interpretations of any phenomenon, and that if we are to choose amongst them we cannot do this on the basis of which one is valid because any judgment about that is determined by our own theoretical presuppositions; presuppositions which cannot themselves be assessed. The implication is that those who do not share these presuppositions will necessarily come to different conclusions. On the basis of this, it is often suggested that research consists of telling stories which should be judged not in terms of their validity but, for example, according to their aesthetic appeal, their political correctness, their usefulness etc.<sup>11</sup>

There is undoubtedly a genuine problem here. We can no longer rely on the foundationalist idea that empirical evidence is simply given and provides an ultimate and utterly reliable arbiter for testing theories. However, it is worth noting that recognition of this has not led all, or even the majority of, philosophers of science to abandon the distinction between theory and observational evidence, or to assume that the latter has no distinctive role to play in research (Phillips 1990). And I think we can see a broadly acceptable answer to the problem of the relationship between theory and evidence in the idea that reliance must be placed on what we currently take to be beyond reasonable

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<sup>9</sup> Kuhn was not the first to recognise the underdetermination of theory by evidence, it was recognised by Hume, for example. The philosopher Wittgenstein provides a more everyday illustration that empirical evidence does not play the privileged role that positivist philosophy of science assumed. He points out, somewhere, that we are unlikely to find *any* evidence provided in support of the statement that 'cats don't grow on trees' more convincing than the statement itself. See Wittgenstein 1969 and also Williams 1991.

<sup>10</sup> See, for example, Guba 1990 and 1992, and Lather 1991.

<sup>11</sup> See, for instance, some of the articles in Clifford and Marcus 1986.

doubt.<sup>12</sup> Thus, we must test new theoretical ideas both against those ideas whose validity we currently take for granted and against empirical evidence which seems to us highly unlikely to be subject to major error. However, this testing must take place in the context of a research community where differences in judgment about what is beyond reasonable doubt are explored and, as far as possible, resolved. This is essential if errors in what we currently take for granted are to be discovered (Hammersley 1991).

That this does not provide us with a basis of absolute certainty for testing theories is obvious. But then the idea that such certainty is available itself seems unconvincing. We do not usually expect such certainty in everyday life, even though we might desire it. We routinely recognise that in most things we can never know anything for sure. But this does not mean that we know nothing. Such a fallibilistic frame of mind is an essential component of any thinking about the role of evidence in social research.

### Theory as one product amongst others

It is worth emphasising one particularly misleading potential implication of the contrast between theory and evidence. This is the idea that theory is the only or the most important product of research. Even amongst qualitative researchers there is a tendency to think in terms of a single, all-purpose product, as in the case of the goal of theoretical description. However, it seems to me that we can identify several distinct sorts of research product, each demanding a somewhat different set of research strategies, and each of which needs to be assessed in different terms. Thus, we can distinguish amongst descriptions, explanations, evaluations and theories. The first two are concerned with particular sets of phenomena existing in particular situations and at particular times. Descriptions document features of those phenomena, while explanations indicate why they have those features. Evaluations go beyond this in adding a value judgment about the desirability or undesirability of some of the features described. Finally, theories refer to the generative principles by which particular types of phenomena are produced, in whatever circumstances they occur. While all of these various products depend on others in some ways (all of them depend on descriptions, explanations depend on theories etc.), they are distinct in character and none of them can serve the functions of the others. Given this, it makes a considerable difference to how one should go about qualitative research depending on whether one's ultimate aim is to produce a description, an explanation, an evaluation, or a theory. And what it is perhaps most important to say is that, in general terms, all of these products are of equal value. In particular, there is no reason to privilege the production of theory.<sup>13</sup>

What this implies is that we must replace the distinction between theory and data with one between claim and evidence. From what I have said in this section, it should be clear that claims may be, but need not be, theoretical. And, on the basis of the argument in the previous section, it follows that evidence need not be empirical: it may consist

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<sup>12</sup> This idea derives from the pragmatist philosopher Peirce, on whom see for example Skagestad 1981.

<sup>13</sup> For a more developed version of this argument, see Hammersley 1991.

simply of an appeal to what we take, until further notice, to be knowledge that is beyond reasonable doubt.

## Conclusion

In this paper I have looked at the concepts of theory and evidence to be found in the thinking of qualitative researchers, and at some of the issues that surround them. I sought to clarify the concept of theory by looking at the contrasts it is normally used to draw---with practice and with data. Focusing on the latter, I argued that there is an ambivalence towards the positivist conception of theory to be found in the work of many qualitative researchers. On the one hand, it is often rejected in favour of alternatives such as theoretical description or pattern explanation. On the other hand, commitment to it seems to persist in the use of methods like analytic induction and grounded theorising. I also argued that the notion of theoretical description is incoherent, since it seeks to combine what is incompatible: the universal and the particular. Nor does the pattern model of explanation offer a viable alternative. In response to these problems, I suggested a modified version of the positivist conception of theory, drawing on ideas about the explanation of social phenomena developed by philosophers of history.

In the second half of the paper I looked at the concept of evidence, arguing that something like the idea of brute data that is often associated with positivism is built into some versions of qualitative research. I noted that this view has been effectively criticised within the philosophy of science, and that as a result of this and other influences relativism is becoming increasingly popular amongst qualitative researchers. However, I argued that this is unacceptable. And I suggested that a distinction between claim and evidence could be retained even though empiricism must be rejected and all conclusions must be recognised as fallible. Finally, I argued that it is important not to see theory, or anything else, as the sole product of research. Research can have different types of product, and they are all of potentially equal value.

More than anything else, my aim in this paper has been to show that there is a variety of unresolved problems surrounding the concepts of theory and evidence in the context of qualitative research; problems that are shared with quantitative research. I have suggested that satisfactory resolution of them requires transformation of both of these important concepts.

## **Bibliography**

Ball, S. (1983) 'Case study research in education: some notes and problems', in M.Hammersley (ed.) *The Ethnography of Schooling*, Driffield, Nafferton Books.

Becker, H.S. (1967) 'Whose side are we on?', *Social Problems*, 14, pp239-48.

Becker, H.S. (1970) *Sociological Work*, Chicago, Aldine.

Blumer, H. (1969) 'The methodological position of symbolic interactionism', in H.Blumer *Symbolic Interactionism: perspective and method*, Englewood Cliffs NJ, Prentice-Hall.

- Bryant, C.G.A. (1985) *Positivism in Social Theory and Research*, London, Macmillan.
- Clifford, J. and Marcus, G. (eds.) *Writing Culture: the poetics and politics of ethnography*, Berkeley, University of California Press.
- Coats, A.W. (1989) 'Explanations in history and economics', *Social Research*, 56, 2, pp331-60.
- Dray, W. (1964) *Philosophy of History*, Englewood Cliffs NJ, Prentice-Hall.
- Eisner, E. and Peshkin, A. (eds.) (1990) *Qualitative Inquiry: the continuing debate*, New York, Teachers College Press.
- Geertz, C. (1975) 'Thick description', in *The Interpretation of Cultures*, London, Hutchinson.
- Glaser, B.G. and Strauss, A. (1967) *The Discovery of Grounded Theory*, Chicago, Aldine.
- Guba, E. (ed.) (1990) *The Paradigm Dialog*, Newbury Park, Sage.
- Guba, E. (1992) 'Relativism', *Curriculum Inquiry*, 22, 1, pp17-20.
- Hage, J. and Meeker, B.F. (1988) *Social Causality*, London, Unwin Hyman.
- Hammersley, M. (1985) 'From ethnography to theory' *Sociology*, 19, 2, pp244-59.
- Hammersley, M. (1989) *The Dilemma of Qualitative Method: Herbert Blumer and the Chicago tradition*, London, Routledge.
- Hammersley, M. (1991) *Reading Ethnography: a critical guide*, London, Longman.
- Hammersley, M. (1992a) *What's Wrong with Ethnography: methodological explorations*, London, Routledge.
- Hammersley, M. (1992b) 'On feminist methodology', *Sociology*, 26, 2, pp187-206.
- Hanson, N. R. (1958) *Patterns of Discovery*, Cambridge, Cambridge University Press.
- Harvey, L. (1987) *Myths of the Chicago School of Sociology*, Aldershot, Avebury.
- Hirst, P.H. 'Educational theory', from P.H.Hirst (ed.) *Educational Theory and its Foundation Disciplines*, London, Routledge and Kegan Paul, 1983

Kolakowski, L. (1975) *Husserl and the Search for Certitude*, New Haven, Yale University Press.

Kuhn, T.S. (1970) *The Structure of Scientific Revolutions*, Chicago, University of Chicago Press.

Lather, P. (1991) *Getting Smart: feminist research and pedagogy with/in the postmodern*, New York, Routledge.

McCall, G. and Simmons, J. (1969) *Issues in Participant Observation*, Reading Mass. Addison Wesley.

Matza, D. (1969) *Becoming Deviant*, Englewood Cliffs NJ, Prentice-Hall.

Merton, R.K. (1957) *Social Theory and Social Structure*, Glencoe, Ill., Free Press.

Phillips, D. (1990) 'Subjectivity and objectivity: an objective inquiry', in E.Eisner and A.Peshkin (eds.) *Qualitative Inquiry in Education*, New York, Teachers College Press.

Skagestad, P. (1981) *The Road of Inquiry: Charles Peirce's pragmatic realism*, New York, Columbia University Press.

Strauss, A. (1987) *Qualitative Analysis for Social Scientists*, New York, Cambridge University Press.

Williams, M. (1991) *Unnatural Doubts: epistemological realism and the basis of scepticism*, Oxford, Blackwell.

Williams, R. (1976) 'Symbolic interactionism: fusion of theory and research', in D.C.Thorns (ed.) *New Directions in Sociology*, London, David and Charles.

Wittgenstein, L. (1969) *On Certainty*, Oxford, Blackwell.

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