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The problem of grounded theory

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Grounded theory (in some form or other) is a standard method of social science research and widely accepted as valid by researchers, university teachers and authorities in this field. As Bryant and Charmaz (2010: 1) confirm, the method '...is currently the most widely used and popular qualitative research method across a wide range of disciplines and subject areas'. They further claim that its extensive use in 'specific practice professions' has led to 'significant advances' in those fields and that 'it is clearly "a good thing"' (*ibid*). This paper examines grounded theory in terms of this contrast between the inductive approach it espouses and the hypothetico-deductive method, typified by Popper (in for example Popper (1992)), which is the basis of CIS's work. The paper draws heavily on my review of *The Sage Handbook of Grounded Theory* edited by Bryant and Charmaz (2010), published in *Higher Education Review* (Pratt, 2011).

The method was first put forward just over 40 years ago by Barney G Glaser and Anselm L Strauss (1967) in *The Discovery of Grounded Theory*, though the authors have developed the ideas (sometimes significantly differently from one another) in later publications. It 'comprises a systematic, inductive, and comparative approach for

conducting inquiry for the purpose of constructing theory' (*ibid*). It encourages 'researchers' persistent interaction with their data, while remaining constantly involved with their emerging analysis' (*ibid)*. Glaser and Strauss saw grounded theory as opposed to 'the traditional method of deriving theory and testing hypotheses from existing theory' (Bryant and Charmaz, 2010: 172). They 'were always keen to demonstrate that their method was *inductive* as opposed to the conventional *deductive* approaches they were challenging' (*op cit*: 44).

The problems with grounded theory emerge almost immediately. The very term can, as Bryant and Charmaz (2010: 2) note, 'lead to confusion'. In some cases, it refers to the *result* of a research process that is a (grounded) theory, resulting from the use of the grounded theory *method* (GTM) – the latter being the other (more commonplace) sense in which the term is widely used, (and it is the method that is discussed here).

What is often striking about the approach, as Bryant (2010: xxviii) says, is that it appears that those who employ it embark on their research without a clear research aim or plan of action. One authority argues that the researcher should enter their domain without a 'pre-conceived problem statement, interview protocols or extensive review of literature' (cited in Bryant and Charmaz, 2010: 20). (It is clear that many students' research proposals claiming to use GTM do not conform to this requirement – indeed cannot because they would be unlikely to pass through research degree committees). However, this illustrates some of the distinctiveness of the method. It draws attention to its inductive nature. Theory is developed iteratively and inductively from data.

Glaser and Strauss described the components of this process in their 1967 text (summarised by Hood, 2010: 154) as a 'spiral of cycles of data collection, coding, analysis, writing design, theoretical categorization, and data collection'. There is 'constant comparative analysis of cases with each other and to theoretical categories through each cycle' and a 'theoretical sampling process based upon categories derived from ongoing data analysis'. This iterative and constantly back-and-forth process proceeds until 'theoretical saturation' of categories is achieved, so that sample size is determined by this rather than by demographic representativeness.

The grounded theory method is intended to offer significant benefits over others. The advantages claimed for it are summarised by Dey (2010: 172): 'In place of the

traditional method of deriving theory and testing hypotheses from existing theory they [Glaser and Strauss] emphasized the virtue of generating theory through interaction with data'. This theory, Glaser and Strauss claimed, 'could be more relevant and productive since it would at least fit the immediate problems being investigated, as well as opening up more fruitful lines of enquiry'. Such theory 'was not speculative since it derived directly from empirical observation...'(*ibid)*.

However, these advantages are not as clear or substantial as they seem. The philosophical or logical basis for GTM, despite some firm statements by various authors in Bryant and Charmaz (2010), and Glaser and Strauss themselves, is flawed – as indeed some of its protagonists admit. Bryant and Charmaz (2010: 1, 15) emphasise that 'Glaser and Strauss were always keen to demonstrate that their method was *inductive* as opposed to the conventional *deductive* approaches they were challenging' (*op cit:* 44). (The claim about the conventionality of deductive approaches seems odd, especially for the 1960s when they had far from wide acceptance, but never mind). Yet Bryant and Charmaz (*op cit*: 45) note the major problem of induction that 'merely because one has collected a limitless number of seemingly identical observations, one has no certainty that generalizing from these observations produces a valid conclusion'. This problem was expounded as long ago as the 18th century by Hume - and resolved by Popper in the 1930s. (A good account of this can be found in Swann (2003: 14-22)). Popper showed that (scientific) knowledge advanced not by induction as was then widely thought (see Medawar 1969: 22) but by a process of conjecture and refutation –a method of trial and error. Popper summarised the process in the following schema:

$$P_1 \text{ -> } TT(TS) \text{ -> } EE \text{ -> } P_2$$

in which P_1 represents an initial problem, TT(TS) a tentative theory (solution), EE a process of error elimination and P_2 the new problem arising at the end of the process.

The problem can be a theoretical (eg why do things do that?) or practical one (eg how do we get this done?) - or even for the fans of grounded theory one arising from existing data (such as, is there a pattern here?). To this problem tentative solutions or theories are offered; these are then tested (by data, evidence, experiment etc) and fallacious ones are rejected. A solution or theory that stands the test is however always provisional (and always presents new problems, though with luck lesser ones). Popper's

explanation of the logic of scientific discovery is now broadly accepted, but Glaser and Strauss (like many of their time and since) carried on as if nothing had happened with, as Bryant and Charmaz acknowledge, 'no reference to the body of arguments about the problems of induction' (2010: 45). The problem of induction - and the relationship between the data and the emergent theories - is also explicitly acknowledged by Reichertz (2010: 214-15): 'The incorrectness of such an inductive approach has already been proven...' (and she cites amongst others Popper).

So why is it so popular? One reason is that the invention of grounded theory had a significant psychological element. Glaser and Strauss were explicitly seeking a method to give assurance and security about method to practitioners in the social sciences. The GT method sought to 'produce outcomes of equal significance to those produced by the predominant statistical-quantitative, primarily mass survey methods of the day' (Bryant and Charmaz (2010: 33). Glaser and Strauss 'aimed to provide a clear basis for systematic *qualitative* research...' (*ibid*). (Glaser argued that the method applied equally to quantitative inquiry). In the 1960s, claim Bryant and Charmaz (2010: 35), qualitative research 'was clearly seen as second rate' and Glaser and Strauss sought 'some basis of validity equal to that of quantitative practices' and so were trying 'to establish a "scientific" basis' for qualitative research. As Dey (2010:172) states: 'When Glaser and Strauss wrote the *Discovery of Grounded Theory* they wanted to challenge grandiose armchair theorizing'. The felt need for security is evident from the style of the original 1967 text. Strauss and Corbin later noted that its purpose was 'partly rhetorical', which goes some way to explain a style which almost certainly would not today be accepted as of the quality needed for international recognition by assessors of research excellence.

The search for psychological security on which grounded theory arises is not just from comparisons with the quantitative methods of the day. It also had an element of the search for certainty in knowledge that characterises much writing about the social (and natural) sciences. As Swann (2011, forthcoming) puts it: 'to a large extent the history of science ... can be viewed as the search for certainties or secure knowledge'. There is no certain knowledge. Induction does not produce anything other than patterns and no amount of confirming data 'verify' a theory. But there is tested theory and the function of data is in these tests.

The way that grounded theory offered psychological security was through procedure - by the generation of theory through interaction with data. Thus the most visible characteristic of the grounded theory method is the elaborate set of procedures for this interaction (Hood, 2010: 154): a 'spiral of cycles of data collection, coding, analysis, writing design, theoretical categorization, and data collection'. One of the advantages claimed for grounded theory as Dey (2010: 185) puts it is that 'it offers practical advice about the nuts and bolts of doing qualitative research' - not least 'when to stop'. Theoretical saturation means, he says, 'stop when the ideas run out', or as Glaser and Strauss said originally, when 'no additional data are being found whereby the [analyst] can develop the properties of the category' (Glaser and Strauss, 1967: 61).

This notion of theoretical saturation relates to a key feature of grounded theory: it is *generation* of theory that was Glaser's and Strauss's original concern of grounded theory. Unlike the hypothetico-deductive method of Popper (and indeed differing also from the methods of inductivists who usually seek to 'verify' data by further observations) the grounded theory method as propounded by Glaser and Strauss stops short at the point of either testing or verifying theory. As Glaser and Strauss put it, '...the constant comparative method cannot be used for both provisional testing and discovering theory...the data collected are not extensive enough, and because of theoretical saturation, are not coded extensively enough to yield provisional tests...They are coded only to generate, hence to suggest, theory'(Glaser and Strauss, 1967: 103).

'Generation' of theory was seen by Glaser and Strauss as opposed to 'verification' - which appears to be their understanding of the key feature of the processes of the natural sciences they sought to emulate, and which is a characteristic of induction. This concern is further revealed in Dey's statement (2010: 186) that: 'Theoretical sampling...is considered as a tool of theoretical exploration not confirmation'. In this sense, the method does not go even as far as the method of induction implies in that there is no attempt to 'verify' or 'validate' inductively generated theory (from accumulation of similar observations) by the accumulation of further similar data. So what we have in this view is, simply, a method of generating ideas – in this case, ideas about patterns or groupings of data or of categories into which observations may be fitted. Dey quotes Gilovich 'the predisposition to detect patterns and make connections is what leads to discovery and advance' (*op cit*: 175). But he does go further, saying that

‘the particular merits of grounded theory...flow from grounding categories in data, even if this falls some way short of their full validation’ (ibid).

What constitutes grounding data seems surprisingly vexed given its centrality to the method. As Dey puts it: ‘One of the most striking but controversial recommendations of Glaser and Strauss was to avoid preconceptions and let categories “emerge” from the data. They thought preconceptions could be limited by not engaging in advance of the research with existing literature...’ (*op cit*: 175-6). Hence the somewhat alarming practice noted earlier of not having a literature search before data collection in student project proposals. But Dey is not at one with this advice: ‘Pattern recognition...is only part of the process... We can think of identifying patterns as primarily a theoretical exercise if we consider patterns not as empirical regularities but as the underlying conceptualizations which can identify and describe...the empirical relationships’ (*op cit*: 177). The fact that ‘pattern recognition’ is itself problematical is left untouched here: it is the observer who creates the patterns – they are in this sense conjectural and therefore subject to test – by data.

This issue of the relationship between emergent and existing theory and data has beset grounded theory. Kelle notes the debate between Glaser and Strauss and the somewhat different positions which they subsequently adopted (2010: 198-206).

Strauss himself evidently recognised the problem in his later writings, arguing, according to Reichertz (2010: 215) that ‘theoretical pre-knowledge flows into the data’s interpretation’ whilst Glaser still ‘insists that the codes and categories emerge directly from the data’. Reichertz argues that the later (Straussian) view of GT falls within the realm of ‘abductive’ logic, an approach advocated by Charles S Peirce as categorically distinctive from both induction and deduction. Abduction is characterised as ‘a cognitive logic of discovery’. In Reichertz’s account it involves the assembly or discovery of a new explanation or rule when, ‘on the basis of an interpretation of collected data...there is no appropriate explanation or rule in the store of knowledge that already exists’ (*op cit*: 219). The new explanation must be reached by means of a mental process, ‘with the aid of intellectual effort’. So abductive inference ‘is not therefore, a *mode of reasoning* that delivers new knowledge, and neither is it an *exact* method that assists in the generation of *logically ordered* hypotheses... or some new theory’ (*op cit*: 221). It is ‘an attitude

towards data and...one's own knowledge: data are to be taken seriously and the validity of previously developed knowledge is to be queried' (*ibid*).

It is not clear from this how abduction differs from the Popperian notion that knowledge advances by proposing tentative solutions (theories) to problems. What both induction and abduction seem to offer are ways of generating such tentative theories. Induction does this by seeking to 'discover' patterns in data (as if they were actually there, rather than are constructs) and by painstaking procedure that seeks to emulate that believed to characterise some of the natural sciences. Abduction recognises that are theories are constructs and that imagination and creativity play an important part in their formulation. The patterns are not just there waiting to be discovered. So depending on which version of grounded theory is considered, it may or may not recognise that all observation and all theory formulation are informed - consciously or otherwise - by preconceptions (that is by existing, perhaps unconscious, theory). Abduction, at least does so, but it still does not go far enough.

For what is curious about grounded theory is the reluctance of nearly all of its proponents to countenance the crucial logical process of testing. Again, positions appear to differ on this, but the originators of the theory and most of the contributors in Bryant and Charmaz (2010) were and are, as already noted, clear that the method is only for generating theory. Although they are mostly inductivists, they do not go so far as to seek verification (not on the grounds that it is logically impossible to achieve this but because the method is not intended to go so far). Yet of what value is it then? As it stands in its conventional form, the method of grounded theory offers nothing more than a procedure for inventing ideas – generating theory, related to some topic currently under observation. Ideas can be invented in a multitude of ways - even sitting in the bath and thinking – and there is nothing in grounded theory that gives any *logical* reason to prefer its procedures as a basis for inventing - and more importantly - for preference between competing theories. Grounded theory only offers a method for devising patterns in data. What makes theory of value is not the method used to generate it, but a subsequent stage, rejected by nearly all the advocates of grounded theory, of testing these theories. Timmermans and Tavary (2010) do suggest the use of Popper's principle of falsification. After a rather bowdlerised account of Popper's views, they propose that 'falsification works as a continual and internal method aiding discovery and theory building...instead of being content with the formulation of ...theories, the researcher...attempts to actively

look for cases that might not fit the theory...' (2010: 501). It does seem astonishing that most protagonists of grounded theory cannot make this (modest) imaginative leap. The root of the problem lies in the insistence that grounded theory is inductive, and the refusal of most of its proponents to accept the long-established fallacy of induction. It is not grounded theory we need, but tested theory.

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