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## **Critical realism and Comparative Sociology<sup>1</sup>**

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### **Abstract**

With the rise of critical realist social science time has come to ask whether this approach can enhance comparative methodology in sociology? The paper contends that the answer contains two paradoxes. Although critical realist sociologists often argue in favour of comparative studies, they are yet to formulate a genuine comparative methodology (first paradox). They refer to the comparative tradition without scrutinising it from a critical realist perspective. When such an assessment is made of core comparative methodologies the conclusion is that post World War II comparative sociology has important methodological flaws being rooted in Mill's inductive logic (1843) and empirical-analytical science philosophy (second paradox). A critical realist comparative methodology must reveal both substantial and contextual features of the phenomenon being researched, and even the most promising comparative methodologies do not integrate these two aspects in a single methodology. However, the conclusion is that a pertinent and critical realist comparative methodology may emerge from streams of contemporary comparative sociology if critical realists duly prioritise the issue of comparative methodology.

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<sup>1</sup> The paper is based on Wad 2000a, 2000b and 2000c.

## **Introduction**

Critical realism presents a methodological perspective which takes a critical stance towards positivism and hermeneutics on the one hand and tries to integrate strong points from both theories of science on the other hand (Wad 2000a, 200b). Contemporary critical realism is formulated by Roy Bhaskar and his like-minded circle of British colleagues (Archer et. al. 1998). In the Nordic countries, critical realism has been promoted in Sweden as a new philosophical platform for sociology from the mid-1990s (Djurfeldt 1996, Danermark et.al. 1997). In Denmark, critical realism has been adhered to by several geographers and political scientists, but it has not taken the central position it deserves being a challenging philosophy of science (see thematic issue of *Grus* nr. 60, 2000, edited by Ougaard).

The 'newness' of critical realism is, however, contended (Johansson & Lind 1999), and in this paper I want to discuss whether critical realism adds new insights to a more limited field, i.e. the comparative methodology of social science in general and comparative sociology in particular. Answering this core question we must address five interrelated questions:

First, what is the aim and principles of critical realist social research?

Second, does critical realist sociology give priority to comparative studies?

Third, what constitutes a critical realist comparative methodology?

Fourth, does the prevailing comparative methodology meet the requirements for critical realist research?

Fifth, if this is not the case, can we construe such a methodology from the arsenal of existing comparative sociological methods, or do we need to invent from scratch?

The first question will be answered in a very crude manner, assuming that the reader as a IACR conference participant is more or less familiar with the philosophy of critical realism. The section will mainly function to shortly clarify the author's interpretation of this philosophy. The second question is addressed by discussing the status of empirical research in critical realist social science before we turn to the more specific issue of the position of comparative empirical studies within this school of science theory. If comparative studies are considered important then the next and third question is what kind of comparative methodology is relevant, appropriate and valid in a critical realist perspective? Is comparison in critical realist studies based on particular methodological principles or is it similar to comparative methodologies in other theories of science? Arguing that critical realism demands a specific methodology for comparative social science, the fourth question arises whether the mainstream tradition or counterpoints of comparative sociology comprises this type of comparative methodology. If this is not the case, and that is what the paper argues, then we face the fifth and final question, how can we develop such a methodology? Do existing strains of comparative methodological thinking and practice provide us with a useful platform or points of departure, or do we need to turn against the sociological legacy and invent a new comparative methodology?

The paper is not about comparative sociology as such, but only about the methodology of that particular field.

## **Critical realist social science**

Among sociologists with a critical realist inclination a broad consensus seems to exist on the core purpose of scientific research (Danermark 1997:235): that is to disclose the mechanisms which generate the phenomena we want to understand. This purpose is immanent to the

ontological stratification of the world into a real domain which is composed of mechanisms, events and experiences, an the actual world of events and experiences, and an empirical world which consists of experiences alone. This triple-stratified world is what makes science possible, Bhaskar argues, because its dynamic is not immediately perceivable, our experiences are not identical with the actual world, and the actuality is not equal to the real world. In addition, the world is differentiated into various layers of physical, biological, psychological and social layers which is again experiential in various ways, including empirical research. Dissenting from this ontological viewpoint, Sayer (1992) contends that the triple strata of Bhaskar's world should be reduced to two strata, arguing that the empirical domain is a domain of the real because the consciousness about a specific event may form (part of) a generative mechanism. However, we hold that it is relevant to distinguish between information and motivation because a certain information may either be non-influential in any way or at best trigger a certain mechanism of motivation and generate human action. Information is not understood as a generative cause, but at best a condition social thinking and action.

The triple ontology of critical realism is part and parcel of its concept of causality. The real world is neither confined to our experiences, nor is it fully explainable in terms of these experiences. Our experiences are delimited to a narrow range of events, and these events are again caused by mechanisms which may only be identified through their effects (events). Some mechanisms may block the effectuality of other mechanism and thereby render them outside the domain of the empirical world for the time being. Causality is thereby related to the activation of mechanisms which are embedded in the structure of objects.

The concept of structure is defined as the internal relationships between elements of the object (Sayer 1992, Danermark et.al. 1997). The mechanisms are causing the features of the object, but this causation is contingent on the context of the object. The context is formed by the external effects of other mechanisms within an open system of mechanisms, events and experiences, i.e. the domain of the real world. This world does even change (evolve) due to emerging objects and structures, and the social world is changing more rapidly than the natural world, because the social world incorporates the perception, reflection and action of human beings and social collectives engaged in social experience, learning and innovation. More profoundly, the knowledge of the world is transitive while Bhaskar contends that the real world is intransitive, because it is constituted by enduring mechanisms though located in and forming a dynamic environment. Our perception and understanding of the world are concept-dependent and theory-laden and they can never completely melt with the real world.

If we take explanation to be the core purpose of science critical realism seems to emphasise thinking instead of experiencing, and especially the process of abstraction from the domains of the actual and the empirical world to the transfactual mechanisms of the real world. This kind of thinking made Bhaskar talking about 'transcendental realism' in his early writings, emphasising the crossing of the divide between the empirical and the speculative activities of scientific work. This is so because the experienced world of events is not explainable in terms of the empirical facts, but only by way of incorporating non-experienced mechanisms incorporated in objects which may be within or outside our domain of investigation. We can say that the old anti-metaphysical dictum of positivism - we shall not believe but know – has to be turned upside down by stating that we need to believe in order to know (and vice versa:

we need to know in order to believe). Science is not anti-transcendental, but demands transcendental thinking in order to grasp the experienced events and order of the day.

Transcendental explanation takes to forms, abduction and retroduction. These forms of abstractions are different from the two mainstream forms of thinking in positivism and empirical-analytical science: induction, and deduction. Danermark et.al. (1997:309) define abduction as an inference or thought operation which position the event within a framework of general ideas or pattern, while retroduction is understood as a way of thinking which implies that you construe the basic conditions for the event or pattern to be as it is (1997:311).

These two forms of abstraction are easily mixed, but they should be kept separate, as abduction implies the conceptual re-framing of the event/pattern to be explained, while retroduction implies the transcendental move from something to another something which is qualitative different and eventually abstract, but is taken to explain the phenomenon by way of outlining the constitutive structure and context for the phenomenon to be (come) factual. In other words: Retroduction aims to specify the necessary and sufficient causes and conditions for the phenomenon to come into existence, to be produced or reproduced.

The implication of retroduction for empirical research is dubious. Assuming that transfactual social mechanisms become manifest through their effects only means that they can only become objects of empirical study when they are triggered and operative. Working from the empirical domain we must try identify such mechanisms through abstraction which can be said to explain the experiences understood as effects of these 'hidden' mechanisms. This process of abstraction does not necessarily validate the explanation empirically because the explanatory mechanism may not be factual in other ways than though the effect to be explained. In short, we do not know whether we explain the phenomenon with something qualitative different or just call the same phenomenon by different names.

Danermark et.al. (1997) present their structural analysis in terms of formal and substantive relations, whereby substantial relations are defined as influential (effectual) and formal relations as accidental or spurious (classificational). Substantial relations are again divided into internal and external relations of which the internal relations are understood as a feature of the object's structure while the external relations are a feature of the object's environment. Understood in the terminology of generative cause and conditional context, the internal substantive relations are the generative causes, located in the object while the external substantive relations are the conditioning context, which is transient relative to the object but nevertheless trigger the potential powers (generative causes) embedded in the structure of the object. Contextual aspects are important for the explanation of the effects of the object, but not for the potential powers, embodied within the structure of the object and effectual in a wider sense and in a wider context.

In order to apply this concept of explanation in empirical and theoretical analysis we have to identify and describe, first, the phenomenon to be explained (explanandum); second, the potential generative mechanisms (internal substantive structure); third, the potential conditional context of these mechanisms; and fourth, the actual triggering conditions and the operative mechanisms which brought about the phenomenon to be explained. The question is which status empirical analysis is given in critical realist explanatory research, and which position comparative social analysis takes in this process?

### **The relevance of comparative social research**

Among critical realists the question of empirical foundation of social science theory is quite controversial qua the insistence that explanation implies the transcendental movement from the empirical and actual domain to the real domain.

The critical realist concept of causality implies several things: We cannot and should not look for universal laws confined to the domain of the empirical world; we can not assume essential mechanisms which may never be further reduced or operate by themselves; we can not formally take causality to be congruent with prediction, because prediction presumes that the environment of the prediction is identical with the context of the explanation, and this cannot be assumed in an open world; and by implication, we can not set up a demarcation principle based the principle of falsification because the context of prediction will be different from the context of explanation. In critical realism we ought to be satisfied with the formulation of practical adequate explanations, which means that we can create knowledge which makes it possible for us to expect certain phenomena to happen or not happen (Sayer 1992, Djurfeldt 1996).

The advancement of natural and life sciences has been attributed to the opportunities to close the open natural system and thereby apply the methodology of the controlled experiment. It is only in the classical experiment that we can control the causal mechanisms and their context, thereby establishing the generative linkage between cause and effect and the symmetry between explanation and prediction. However, this experimental situation requires two outstanding conditions: 1) a perfectly controlled environment and object over time, and 2) a theory of how we can generate a particular effect by means of triggering a particular mechanism in a particular context. And these conditions are difficult to create in natural science and even more so in life science and social science. Far from all physical objects can be put into the laboratory. The regularities and explanations obtained in the artificial context of the experiment will only have limited application outside the closed system. A host of factors may interfere with the control of the causes and conditional circumstances. Explanations may be unarticulated, misconstrued or inadequate. Theories in natural sciences are therefore also transient in principle although some intransitive mechanisms may be discovered, described and understood appropriately. Within social sciences we face the double problem of changing mechanisms and open-ended contexts without the possibility to freeze objects and contexts of study, except in rare and approximate occasions.

How, then, is social science research possible and feasible in such an open and changing world? And can we use comparative methods in our pursuit of contextual causal mechanisms?

The leading philosopher (Bhaskar) pays limited attention to empirical methodology while others like Ray Pawson and Andrew Sayer give much more thought and weight to empirical aspects of critical realist social research.

Sayer (1992: 85; 2000:27) argues steadfastly that the core concern of critical realist research is conceptualisation and abstraction. He (1992 chapter 9) pledges for concrete research as opposed to abstract research, and he outlines an intensive research strategy for causal explanation in contrast to the extensive research strategy, which merely aims for

generalisations. Finally, he contends that the intensive and extensive research strategies are complementary and that they, if integrated, can form a synthesis of research strategies, which may turn into cross-disciplinary studies.

Djurfeldt (1996:91) classifies Sayer's methodology as a realism of abstraction, but this emphasis on abstract analysis seems to overkill the case, because the intensive research is not identical with abstract research, but a focused strategy combining concrete and abstract analysis, and because Sayer even points to the synthesis of all research strategies as the ideal methodology. What Sayer (1992:ix) aims for is to rectify the underdog status of social science methodology compared with natural science methodology, and this aim is pursued, not by developing an abstract research strategy in contrast to empiricist natural science, but by specifying the particularity of social science research and the immanent integration of empirical studies and theoretical reasoning. However, Sayer does not explicitly develop a comparative strategy for synthetic research, and his intensive strategy is a strategy for qualitative case studies while his extensive strategy is a strategy for quantitative 'population' studies.

Ray Pawson launches a more empirically-oriented strategy for social research in and on open social systems, and this solution makes him into a dissident of the critical realist camp. He outright criticises Bhaskar's lack of empirical methodological thinking: "Bhaskar's realism (if we can term it thus) was deficient since whilst it recognizes that the causal mechanisms which lie at the base of scientific knowledge can only be discovered in a closed system, it poses no strategy for validating knowledge of that system, which is independent of that system." (Pawson 1989:149). Moreover, he also takes on Hesse's realism (repeating "if we can term it thus") for failing "to deliver any model of the process of interceding in the existing network which is not open-ended and thus virtually random" although Hesse did show how the "elements in the chain fit in with a pre-established network of existing relations" (1989:150). Pawson's key idea is "that the networks of laws, theories, relationships and instruments which comprise the major research programmes in science are in fact composed of an interlacement of closed systems" (1989:150). The ideal realist empirical inquiry, thus, becomes "a process of creating an *explanatory closed system* which one tests through the application of an *interpretative closed system*" (1989:151).

Pawson outlines a strategy for sociological research based on this notion of realist closure, which ends up advocating comparative and process oriented social research: "Firstly, any empirical relationship requiring explanation would be interpreted as the consequence of the action of a *generative mechanism*. Secondly, since it is assumed that all generative mechanisms are localized in their action it is necessary to specify the *social context* where the mechanism is expected to operate. This would involve close definition of the social characteristics of the group of location to be studied, rather than simply assuming that mechanisms (and thus laws) act uniformly across general population samples. Thirdly, since it is assumed that the action of a mechanism can be obscured by other mechanisms, some method of controlling the effects of these further constraints on the relationship under inspection is required. Since the physical and statistical elimination of these confounding mechanisms is out of the question, some kin of comparative or longitudinal research design is called for in order to at least recognize their action. Between them, these strategies can approximate what I have characterized as a realistic pincer strategy of achieving closure by matching mechanisms to environmental conditions" (1989:213).

While Pawson even favoured an upgrading of comparative sociology, the Danermark group is more cautious. They underline that retroductive reasoning does not imply a particular method to identify causal mechanisms, but they propose five 'strong' methods as alternatives to the classical experimental design (Danermark et.al. 1997:158-65): contrafactual thinking; social experiments; studies of pathological cases; extreme-case studies; and comparative case-studies. Comparative research is relevant because it provides empirical foundation for retroductive analysis, and it opens up for the identification of common necessary and constitutive elements by way of eliminating accidental elements. The question is whether these methods are sufficient to form an alternative methodology to the controlled experiment, as they argue, or they, in fact, draw on the same methodological principles as the controlled experiment? Well, at the end of the day, the Danermark-group (1997:258) adheres to a critical pluralist methodology. This means, on the one hand, that they draw on and combine existing research strategies (the intensive and extensive strategies of Sayer) without innovating new methods; and on the other hand, that the choice and application of various methods must be based on methodological reflections and that these reflections must be rooted in critical realist philosophy of science.

In sum, we face the first paradox of critical realism and comparative sociology: If empirical research is properly assessed as an important part of social science, critical realist researchers argue in favour of comparative strategies, but they have not invented or innovated any strategy based on critical realist philosophy and methodology. Hence, if we have to draw on existing (comparative) research methods, the crucial question is whether existing comparative methods fit into critical realist thinking?

### **A typology of comparative methodologies**

In order to answer the above question we need to develop a way of describing various comparative methodologies and their qualities in terms of critical realist thinking.

Acknowledging the methodological reflections of the Danermark-group we propose to differentiate a critical realist comparative methodology from other comparative methodologies by way of establishing a typology for comparative research, based on the constitutive features of critical realist explanation which such research aims for. The typology addresses two questions: Firstly, does the comparison aims for explanatory depth, i.e. does it discover formal or substantial relationships?; and secondly, does it study the generative process in its complex contextuality or not? The dimension of comparative depth has two options: formal relations, and substantial relations, and the dimension of comparative contextuality also falls into two options: context-free, and context-dependent. The combination of these dimension makes up for a typology with four types of comparative methodology:

- Formal and context-free comparison (type 1)
- Formal and context-dependent comparison (type 2)
- Substantial and context-free comparison (type 3)
- Substantial and context-dependent (type 4).

This comparative typology spans two central debates in comparative macro-sociology. One controversy regards the contradiction between nomotetic, variable-oriented research versus ideographic research (Goldthorpe 1997), and this controversy spills over into the critical realist ontological distinction between closed and open system, which is reflected in the dimension of comparative contextuality. The other controversy regards the opposition

between synchronic and correlational analyses versus diachronic and generative analyses, which are comprised by the comparative depth of the analysis in terms of formal comparisons or substantial comparisons.

The four comparative types approximate particular comparative methods. Type 1 includes quantitative and variable oriented studies of a large number of social units (e.g. surveys). Type 2 includes historical, anthropological and sociological multiple case studies which aims for the qualitative description of a specific social phenomena. Type 3 comes close to the classic controlled experiment where the researchers try to neutralise the impact of the context in order to manipulate one or a few causal factors; the experimental process is nevertheless not 'free' but only static and not completely comprehended by the researchers. Type 4 signifies what we would call the critical realist type among comparative methods, because it is designed to analyse the phenomena in terms of substantial and contextual relations of multiple cases and eventually over time to disclose the generative dynamic involved.

With this typology in mind we can now embark upon the task to assess the critical realist aspects of traditional and contemporary comparative methodologies.

### **Classic comparative methodology**

The founding father of comparative methodology in social science is John Stuart Mill (1862, vol. I:425-448) who outlined an inductive logic in 1843 which became the foundation of inductive reasoning, experimental inquiry and comparative methodology. Surprisingly, Mill's inductive logic continues to be the methodological backbone of important contemporary comparative sociology like the cross-national comparative sociology of Przeworski & Teune (1970) (see also Pennings et.al (1999:43), the historical sociology of Skocpol & Somers (1980), the qualitative comparative analysis of Ragin (1987), and the new comparative political economy of Janoski & Hicks (1994).

Taking causality to mean simultaneous or successive regularities between events Mill delineates five comparative methods for the causal analysis of empirical phenomena:

- The Method of Agreement whereby we compare different instances where the phenomenon occurs to determine in which respects they have ('agree on') common features. Mill's first canon says that "If two or more instances of the phenomenon under investigation have only one circumstance in common, the circumstance in which alone all instances agree, is the cause (or effect) of the given phenomenon" (Mill 1862, I:428).
- The Method of Difference whereby we compare instances where the phenomenon occurs with instances where it does not occur in order to identify regularities which differ. The second canon says that "If an instance in which the phenomenon under investigation occurs, and an instance in which it does not occur, have every circumstance in common save one, that one occurring in the former; the circumstance in which alone the two instances differ, is the effect, or the cause, or an indispensable part of the cause, of the phenomenon" (Mill 1862, I:429).
- The Indirect Method of Difference, or the Joint Method of Agreement and Difference, whereby we apply the Method of Agreement on counterfactual instances. The canon for this comparison states that "If two or more instances in which the phenomenon occurs have only one circumstance in common, while two or more instances in which it does not occur have nothing in common save the absence of that circumstance; the circumstance in



which alone the two sets of instances differ, is the effect, or the cause, or an indispensable part of the course, of the phenomenon” (Mill 1862, I:435).

- The Method of Residues whereby we compare instances for which we know the connection between all circumstances except the residual one, aiming to discover the regularity between the unexplained circumstances. Mill’s canon for this method states that “Subduct from any phenomenon such part as is known by previous inductions to be the effect of certain antecedents, and the residue of the phenomenon is the effect of the remaining antecedents” (Mill 1862, I:437).
- The Method of Concomitant Variations whereby we compare instances where the phenomenon cannot be isolated or eliminated, but only varied, in order to disclose the regularity between the qualitative similar, but quantitative different circumstances. The canon for this method says that “Whatever phenomenon varies in any manner whenever another phenomenon varies in some particular manner, is either a cause or an effect of that phenomenon, or is connected with it through some fact of causation” (Mill 1862, I:441).

Mill only counts four inductive methods because he sees the Indirect Method of Difference as a special case of the Method of Agreement. Moreover, he mentions that the Method of Residues is not a pure inductive undertaking, because it relies partly on deductive reasoning. Furthermore, the four methods can be further reduced to two basic methods, the Method of Agreement and the Method of Difference. The Method of Concomitant Variations is a special case of the Method of Difference in which it is impossible to eliminate the phenomenon under investigation. And the Method of Residues is a modification of the Method of Difference, too, because the known circumstances can be eliminated in the same way that all the ‘similar’ circumstances can be disregarded in the inquiry based on the Method of Difference. Finally, the two basic methods do both apply the method of elimination, but in qualitative different ways: “The Method of Agreement stands on the ground that whatever can be eliminated, is not connected with the phenomenon by any law. The Method of Difference has for its foundation, that whatever cannot be eliminated, *is* connected with the phenomenon by law” (Mill 1862, I:430).

Mill contends that the Method of Difference is the proper method of the artificial experiment. The complete similarity between the two compared instances is such a strong demand that it very seldom if ever occurs in a natural or spontaneous way and thereby makes it possible to use the Indirect Method of Difference in circumstances similar to the Method of Difference. The Method of Agreement has the weakness that we may not catch circumstances which are sufficient, but not necessary to cause the effect, or that we may consider circumstances for causes which in fact accidentally occur in all the instances under investigation.

In a critical realist perspective Mill’s methodology and in a broader sense the whole notion of inductivism are flawed because they substitute regularity for generative causality. Harré (1985[1972]:47) argues the case in the following way: “Our conclusion must be that though Mill’s Canons are valuable schemata for organizing an investigation they could hardly be generalized into the whole of scientific method. And the reason, in short, is that scientists are not exclusively concerned to discover correlations among phenomena, but are at least as interested in the explanations as to why the correlations that can be discovered are the way they are, and in explanations as to why there are the structures that there are... This leads to a point of more general application. The real reason why inductivism is so wrong is that it is so

unrealistic. It is an attempt to codify a more or less mythical conception of science". At best, Harré recognises Mill's comparative logic of induction as a preliminary stage of science (Harré 1985:59).

This account is quite devastating for comparative studies in a critical realist perspective, if existing comparative methodologies are rooted in Mill's logic of research, and if no genuine critical realist methodology has been construed. We move to consider whether core comparative sociological methodologies are on fact based on Mill's thinking from the past.

### **Contemporary comparative methodology**

Although many comparative sociological treatises were made during the 1950s and 1960s, with Barrington Moore Jr.'s "Social Origins of Dictatorship and Democracy" (1966) as a seminal work, the first contemporary methodology for comparative social science was developed by Adam Przeworski and Henry Teune in "The Logic of Comparative Social Inquiry" (1970). They presented, among other things, two types of research strategies, named 'the most different systems design' and 'the most similar system's design'. They did not themselves recognise the affinity with Mill's basic methods of inductive inquiry, but Penings et.al. (1999:47) highlights this connection: The Method of Agreement is quite similar to the 'most different system's design' and the Method of Difference comes close to the 'most similar system's design'.

Having critically addressed the work of Barrington Moore Jr. in the 1970s Theda Skocpol outlined, in collaboration with Margaret Somers, another typology of comparative methods for macro-sociological and historical studies. This methodology comprises three methods for historical comparisons, of which two are inspired by Mill's comparative reasoning: the Parallel Demonstration of Theory which matches Mill's Method of Agreement; the Contrast of Contexts which is rooted in Mill's Method of Difference; and the Macro-causal Analysis which combines Mill's Indirect Method of Difference and the Method of Difference. Skocpol & Somers combine these methods into a research cycle (or 'triangle') whereby the parallel comparison delivers generalising theory, which is delimited by the subsequent application of contrasting comparisons; this study may again provide alternative explanations of a heuristic character, which can be elaborated by use of macro-analytical comparisons in a more narrow research field. The next step will be to try to generalise the specific theory by way of redoing parallel comparative studies etc. Skocpol & Somers argue that they by integrating the three methods strengthen their individual analytical power and minimize their weaknesses. In retrospect, the integrated method did not pave the way for a rush into macro-sociological research. In fact, Skocpol herself did not continue her comparative macro-sociological studies, but turned to macro-case studies.

Based on Mill's two basic methods, Charles Ragin (1987) developed a qualitative comparative methodology which aimed to integrate the qualitative case-oriented study and the quantitative variable-oriented study. He sought to design a methodology which could handle the grey research area characterised by simultaneously combining many cases and many variables. Each case should be described as a 'configuration', i.e. a complex of specific features which could maintain the uniqueness of every case. Thereby he could keep the holistic approach of the case study and yet identify multiple interlocking conditions (or causes) for the existence of a particular phenomenon. The methodology had a wider

application than Skocpol & Somers' macro-comparative methodology, and the complexity of the information could be handled by Boolean logical algebra. The outcome of a qualitative comparative analysis entailed that all accidental aspects of the configurations could be eliminated and the result would outline the minimal configurations which fit the phenomenon to be explained.

Ragin contends that his methodology is a synthetic comparative research strategy, which come close to five ideal abilities to examine a large number of cases, to address complex causal conjunctures, to produce parsimonious explanations, to investigate cases both as wholes and as parts, and to evaluate competing explanations (Ragin 1987:121-123). But the qualitative comparative methodology has also been targeted for criticism.

King et.al. (1994) reject deterministic explanatory models, and they interpret Ragin's methodology as one being establish on this premise. This criticism is valid as far as Ragin does not accept deviant cases, arguing that all cases call for explanation. However, Ragin et.al. (1993) do allow for varying degrees of determined outcomes, talking only of 'determined causality' when all cases fit certain outcome-configurations; when more than 50% and less than 100% of the outcomes are explainable by a certain configuration we deal with 'likely causality'; and if a certain configuration only comprises less than 50% of the cases in terms of the same outcome, we face a situation of 'possible causality'.

Another criticism takes Ragin to task for not weighting the various factors of explanation in his methodology, which is possible in regression analysis. Ragin (1997:37) dismisses this criticism as irrelevant because causation is understood as sets of interrelated causes, forming 'causal pathways'. However, if one wish to assess the weight of each causal configuration, one could estimate the share of cases, it explains.

Ragin's methodology operates with binary factors for the description and explanation of the cases investigated. Thereby, a lot of information is lost during the research process. Ragin tries to address this criticism by way developing a 'fuzzy logic' which opens up for a more variable or quantitative description of the cases and the analysis of the transformation of quantities into qualities and vice versa (Kvist 2000).

Finally, Janoski & Hicks (1994:16-17) contend that Ragin neglects the internal, holistic case analysis when it comes to practice.

These critics have developed the latest comparative methodology, which we include in this overview of contemporary comparative strategies. Thomas Janoski and Alexander M. Hicks (1994) propose to integrate Mill's basic methods and Ragin's Boolean methodology with a set of new quantitative methods like cross-sectional analysis, time-series analysis, pooled analysis and event history analysis. This integration is articulated in a comparative research process which comprises several stages of inquiry (Janoski & Hicks 1994:7-13):

1. Selection of the problem and theory, based on abductive reflections.
2. Initial external analysis which focuses on the selection and comparing of countries.
3. Data collection
4. Internal analysis of the individual country, comparing data over time.
5. Adapting the theory to the specific countries.
6. Specification of theory for all countries.
7. Write up the results.

Janoski & Hicks' new comparative political economy resembles Skocpol & Somers' triangle for comparative historical research, but where Skocpol & Somers switch between

generalising, delimiting and elaborating the analysis, Janoski & Hicks seem to be preoccupied with the interplay of theoretical and empirical investigation at two levels of comparison: external (cross-country) comparison and internal (intra-country cross-time) comparison. Although they do not refer to Sayer, their set of internal and external analysis comes close to his set of intensive and extensive research strategies, among other things also because they do acknowledge the application of quantitative data for the internal(intensive) analysis of particular countries. However, Janoski & Hicks do not base their reasoning on the critical realist concept of 'retroduction'. They start out with abductive theoretical analysis, but they seem to use the term in a slightly different way than critical realists do. They see abduction as a way of coming to terms with ethnocentrism and other biases due to the background of the researchers, and not as a way of changing the theoretical perspective of the research.

### **The second comparative paradox**

Despite the truncated character of the material presented about the comparative sociological methodologies, the evidence indicates that important contemporary comparative sociologists do research which is rooted in the inductive logic of John Stuart Mill. There are variations and innovations, and certain concepts are used which also hold a prominent position in comparative sociology with a critical realist inclination. But by the end of the day, the dominant comparative thinking among sociologists does seem to ally with methodologies which are part and parcel of inductivism or positivism. These approaches are heavily criticised by critical realists in terms of ontology, epistemology and methodology. Hence, a new and second paradox arises: Comparative research is highly regarded by critical realists, but no comparative methodology exists which can be applied on the premises of the philosophy of critical realist social science.

Among critical realists the notion of methodological pluralism prevails, anyway. Sayer (2000:19) contends that "Compared to positivism and interpretivism, critical realism endorses or is compatible with a relatively wide range of research methods, but it implies that the particular choices should depend on the nature of the object of study and what one wants to learn about it." Danermark et.al. (1997) explicitly argue in favour of methodological pluralism, but a critical variety, whereby existing methods are used in a research strategy, based on critical realist methodology and applied in a critical realistic way. How this methodological 'abduction' takes place is not delineated or elaborated in a convincing way. One may get the feeling that critical realism develops a huge superstructure of ontological and epistemological insights, but when it come to practical research we are left with the usual methodological suspects, delivered by inductivists, positivist and empirical-analytical scientists.

Two complementary defences seem to be available. First, critical realism does not exclude methodologies from the past. It merely outlines their delimitation and incorporate them accordingly in their arsenal of methodologies. Second, the common flaw of inductivism and positivism is that they do not explain social phenomena. They merely describe empirical regularities although they pretend to explain these regularities in terms of universal laws. The critical realist solution, then, seems quite straightforward: to add the explanatory methodology to the existing descriptive empirical methodology. This viewpoint is extractable from the past writing of Harré (1985[1972]:59,61), but it also shows its face in the past and present writings of Sayer (2000:19): "So much depends on the modes of abstraction we use, the way of

carving up and defining our objects of study (Sayer, 1992, Chapter 3). Unfortunately, the bulk of the methodological literature on social science completely ignores this fundamental issue, as if it was simply a matter of intuition.”

On the same page Sayer also rejects ‘cookbook prescriptions of method’. We seem to face at least a dilemma if not a paradox of double standards, and in practical research, we may be easy victims to some kind of intuitive pragmatism - if we do not retreat from empirical research altogether, paralysed between the high philosophy of science and the low methodology of empirical research.

### **Conclusion**

Comparativists within the camp of critical realists seem to accept the prevailing comparative methods as relevant and appropriate, although they acknowledge that these methods must be critically chosen and applied in a critical realist perspective. In my view, this is indefensible because a certain philosophy of science is advocated on the one hand, while critical realists, on the other hand, accept research methods which are based on other philosophies of science. The excuse is that we can adopt a *critical* methodological pluralism, but in practice, this is not easily done. What is more important is, however, that we abstain from developing new methodologies, inspired by and fulfilling the criteria of critical realism.

In comparative sociology, we have at present at least one option, and that is to further develop the comparative methodologies, lauded by Ragin and Janoski & Hicks. One of the first tasks is to elaborate the explanatory methodology of these research strategies, because a recurring criticism of existing methodologies is their lack of a proper understanding of the concept of generative causality and the design of research strategies which comprehend this explanatory framework. The objective should be to construe what we have called a substantive, contextual methodology for comparative social science research.

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