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Author: Malcolm Williams

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MacIver and Causation

Malcolm Williams

Though produced in the 1930s and 1940s Robert MacIver's writings on causation can be seen as an allegory for the divisions in scientific approaches to sociology apparent to this day. His work is often associated with a more 'subjective', 'humanistic' approach to the discipline, but what he represented was actually an alternative conception of science in social science to that of the dominant positivism of his day. This was recognised some years ago by Martyn Hammersley in his book on Herbert Blumer and the Chicago tradition. Hammersley describes MacIver as a 'realist' (Hammersley 1989: 106–7) and indeed in hindsight we can see that MacIver's greatest methodological contribution was to champion a realist formulation of causation in a climate of positivism that denied the legitimacy of causal explanation.

Though influential in the golden age of US sociology, alongside other 'anti' positivists such as Znaniecki, Lynd, Blumer and Sorokin his methodological prescriptions were not mainstream and he himself, in the introduction to *Social Causation,* anticipated 'hot and angry comments' on his work (MacIver 1964 [1942]). He was seen by some, at least, to embody the very different 'British' version of sociology antipathetic to the US one. The attempt to appoint MacIver to the Chair of sociology at Minnesota, in 1921, was apparently seen by Luther Bernard 'as a plot to dissolve sociology into the humanities' (Bannister 1987: 130) Though there were clearly humanistic elements to MacIver's sociology, Bernard's assessment was wide of the mark. Furthermore later simplifications of sociological methodology into apparently antagonistic quantitative ('positivist') and qualitative ('interpretivist') camps resulted in a loss of important methodological nuance in, what might be better called the 'anti-scient*istic*' tradition in American sociology. In hindsight we can fairly safely speculate that the aforementioned sociologists and specifically MacIver, would be no more sympathetic to the relativist, post critique humanism of much of current qualitative sociology than would Lundberg, Dodd or Lazarsfeld. MacIver, long before it was fashionable (or perhaps now becoming fashionable again) occupied a position in sociology that, like Durkheim, saw social phenomena as real things, but like Weber saw causal explanation as emergent and not manifest.

MacIver's position today would be recognisable at the level of methodology and method. In the first case he advocates a thoroughgoing realist version of causation of the kind proposed by critical realists, such as Roy Bhaskar (1978; 1998)and Andrew Sayer (1992) or analytic realists such as Peter Hedstrom (2005) or Ray Pawson (1989; 2000). In the second case he favoured a pluralist approach to methods that does not fetishise either quantitative or qualitative methods to the exclusion of either, but embraces method for its ability to provide rigorous sociological explanation (Payne *et al* 2004). For sure, he often seemed to favour case studies over statistics, but he most certainly did not denigrate the importance of the latter (MacIver 1933: 34).

However my task here is not to rescue MacIver and his contemporaries from misunderstandings of the subtleties of twentieth-century US sociological methodology. Martyn Hammersley (1989), Robert Bannister (1987) and Jennifer Platt (1996) have already done this job superbly well. My aim is more limited: it is to locate MacIver's writings on causation in a more general methodological history of causation in sociology and to ask if they are useful to us now, or best left as an interesting curiosity in the history of the discipline. As did MacIver himself, I need to begin this task by reviewing what we might mean by causation and the difficulties of its application in explaining the social and physical world.

Causes, Causal Reasoning and Causes in the Social World

MacIver's own review of the problem, in his 1942 book *Social Causation*, has hardly been bettered for its clarity. Critical accounts of causal reasoning often begin with Hume, or at least the paradox of the need to reason causally in everyday life, but the difficulty in attributing specific causes and effects. Sociologists study change and, as MacIver (1964: 9) points out by experiencing change we 'summon the concept of causation'. Change is always relative to something that did not change, so we assume that which did change is caused, that is 'made to happen by something else'. 'Change and the unchanging are correlative, and we cannot think of the one without the other we cannot think of either except in the light of the principle of causation' (1964: 10). Yet, equally, Hume's scepticism is hard to deny. To witness one event following another requires us to draw on experiential psychological resources to make the causal connection. In making a statement such as 'the arrest caused the riot' no amount of observational evidence will demonstrate the causal connection. It

inevitably depends on linguistic and conceptual links being made between the events. It calls upon our common sense or sociological theorising to attribute causal connections between conjoining events.

In science, but particularly social science, the observational evidence is rarely first hand and to make causal connections in numeric data requires statistical and, many would add, conceptual reasoning. The story often presented as apocryphal but actually true, of the rise in both the stork and human populations in Oldenburg in Germany in 1936 (Glass 1984) has been offered to generations of statistics students as a cautionary story about not making causal assumptions from correlative data. A further and related problem, as MacIver points out, is that in causation we have something like a version of Zeno's paradox: wherever we intervene in a 'causal chain', the sufficient condition for the effect is forever postponed by a moment (1964: 44), and whilst necessary and sufficient conditions together can be said to produce effects, each necessary or sufficient condition is but a 'factor' in the description (1964: 28–29). If we say something like 'the arrest caused the riot', where in the chain of events from the making of the law under which the arrest was made to the moment the arrestee was led away by the police, do we identify the precise necessary or sufficient conditions? It is of no comfort that precisely the same problem exists in identifying conditions in physical processes. To attempt to identify the conditions, to say x caused y, is to pick out and privilege some component of the process as necessary or sufficient. Such practice has led critics of causal reasoning to accuse its proponents of vitalism, and indeed Bergson claimed the concept of the *élan vital* as an explanatory life force.

Even before one moves to the particular difficulties of social causation there is enough that would not have been seen as 'scientific' in the first half of the twentieth century to rule out the possibility of causal explanation. Bertrand Russell had claimed that causation, like royalty, was harmless, but had no purpose (Russell 1992 [1912]). Nevertheless he noted that modern physics and by this he meant quantum physics, had no need for causation. Undoubtedly the fashion in physics in the first forty years or so of the twentieth century, would have played well with the sociological warriors of science such as Lundberg (1939); Dodd (1942) and Lazarsfeld (Lazarsfeld and Rosenberg 1955), yet equally there was a long standing tradition in statistical analysis, going back to Karl Pearson, that saw causal thinking as 'pre-scientific' (Goldthorpe 2000). Certainly this was the view of the US positivists. Instead they proposed a version of theory testing which relied on an extreme form of inductivism based on survey data. Though there were variations

in the analysis strategies, in the extent to which theory was 'tested' and in the nature of data gathering, the approaches were all characterised by a reliance on regularity, association and phenomenalism. Jennifer Platt (1996: 86) describes its apotheosis in Dodd's 'pan sample' which proposed hundreds or thousands of observations of the same phenomenon to demonstrate all of the conditions under which a generalisation would hold. Dodd's view was that if correlations of all variables under all conditions could be known, then rather like in Laplace's 'clockwork universe' (Williams 2000: 30) we could generalise to future states.

Undoubtedly such analyses produced useful empirical results (though Dodd's research question seemed pretty banal to begin with – Platt 1996: 85–6) and they certainly helped us to develop the kind of analyses used today that are built on data matrices, but a criticism made by MacIver and later more famously by Gouldner (1968), was that the reasoning basis underlying this analysis approach was far from objective and relied quite often on narrow normative conceptions of what was an appropriate programme for sociology. The complaint of the positivists that causal thinking was unscientific, was compromised by their subjectivity in accepting initial conditions as givens and deriving normative hypotheses from these. It is perhaps rather ironic, given the foregoing, that the behaviourism popular in psychology around this time and supported by Bernard and others in US sociology (Bannister 1989), cited the inaccessibility of human mental processes, notably reasoning and self reflection, as grounds for rejecting causation as subjective.

Nevertheless they had some good points about the philosophical difficulties and the added difficulty for causal reasoning in the social world. Whilst feedback mechanisms have long been known in biology, human self-consciousness adds an extra difficulty – particularly that both agents and sociologists will frequently cite reasons as causes (Papineau 1978:52–5). Indeed if there is to be any concept of causation in the human sciences, it seems hard to avoid confronting the idea of reasons as causes.

In sociology there have been two common strategies to avoid this problem: the first is the aforementioned anti-causal behaviourist (or at least phenomenalist) approach which measures only outcome states, or possibly correlates attitude statements (such as those recorded in scales) with outcome states.[1]

[1] I am guilty of some simplification here. Though much of the early US positivist tradition was, as I indicate, openly anti-causal (Abbott 1998), later work aimed to produce causal inference through correlative methods. This approach evolved into what is sometimes referred to as 'causal analysis', and nowadays uses devices such

The other strategy is to abandon a quantitative or even analytic approach in favour of a search for meaning or an emphasis on narrative approaches. It is the latter that has come to dominate qualitative research in recent decades (see for example Lawler 2002) and whilst there has been a return to causal analysis in quantitative research (particularly in the US), this is still underpinned strongly by the same positivist principles that informed the work of the 'anti-causalists' such as Lazrasfeld. MacIver was in neither camp and we can see him as prefiguring the contemporary realist analytic approach.

MacIver's defence of the principle of causation

Though he sets out the case for causal reasoning in its most complete form in *Social Causation*, this was not his first word on the matter and his 1930 American Sociological Association (ASA) presidential address, entitled 'Is Sociology a Natural Science' (MacIver 1933), was both a rebuttal of the dominance of the 'statistical' method and a plea for a return to causal thinking in sociology. The growth of the use of the statistical method and associational reasoning paralleled the emergence of the survey method in the United States. Whilst not opposed to the use of either, MacIver nevertheless was an adherent of the earlier 'case study' approach. Though he would have not used terms such as 'ant-realist' or 'phenomenalist' as a description of the new methods, this was certainly the tone of his attack on the statistical method. In bemoaning the abandonment of a concept of natural necessity and its replacement by 'logical necessity', he says

> And should we be baffled by the question how *logical* necessity can hold for an order that lacks any inherent or existential necessity, then we must resort to the position of Karl Pearson, who tells us, in true Humean fashion, that the necessity is merely that of the order of our sense impressions, and that the word 'cause' is properly used to mark a 'stage in a routine experience'. (MacIver 1964: 49–50, emphasis in original)

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as the Generalised Linear Model (GLM), which seeks the relationship between one continuous dependent variable and one or more continuous or categorical variables. More sophisticated 'causal' models may use multi level modelling (Snijders and Bosker 1999). Nevertheless, the reasoning in even the most sophisticated of these models remains probabilistic and would not (I suspect) satisfied MacIver.

Thus MacIver, in his denunciation of the abandonment of ontological necessity, commits himself to it as a cornerstone of his own version of causation, which following G. H. Mead he states very simply as '[an] event is dependent on the conditions, that without the conditions the event would not occur' (ibid., 69). This position is a deceptively simple one, but one that is hard to actualise in a methodological programme. MacIver attempts to do this and from a realist perspective he can be interpreted as having some success. I will argue later that he does not entirely succeed, but that is because versions of realism that espouse a natural or ontological necessity cannot move beyond the metaphysical.

In what he terms his 'analytic approach', in *Social Causation*, he describes causal factors, characteristics of causal explanation that we need to take into account in developing a causal methodology in the social world: They are: 'Cause as Precipitant', 'Cause as Incentive', 'Cause as Responsible Agent'.

*Cause as Precipitan*t

Sociology and other social sciences are in the business of identifying the specific 'why' of change, or indeed stasis, in order to recommend a course of action to bring about improvement. In economics, in particular, there is a desire to know what monetary intervention can be made to improve a situation, thus the economist needs to identify the causal agent of change, what MacIver terms the 'precipitant cause', the 'factor that is introduced from the outside, or else emerges from within, so that it evokes a series of repercussions or reactions significantly changing the total situation' (ibid., 163). He provides examples in history of wars or revolutions that are triggered by a precipitant cause. However, this is often hard to identify and what we often find are 'causal chains', chains of events in which A produces G through identifiable links in the chain, such that G would not have occurred but for A. But, as MacIver points out, we could not say that G was in any sense determined before hand.

One may approach the precipitant as a disturbing factor within an equilibrium, thus the various causal chains, whilst making an apparent difference, ultimately do not change the nature of the tendency toward equilibrium. In this he cites the economic models of Adam Smith and Alfred Marshall and the equally deterministic impetus toward revolution in Marxist economics. In these models we can say x causes y , but only on the basis of all things being equal, the let out or *ceteris paribus* clause. These kinds of theoretical models do not convince him of their verisimilitude and he approvingly cites Barbara

Wootton as saying 'the possibility that our economic mechanism is so kinetic that the rate at which new disturbances occur is habitually greater than the rate of adjustment to such circumstances'. This turns equilibrium on its head in favour of constant flux and presents a difficulty in identifying those precipitant causes.

MacIver has two suggestions, which both find their echo in later methodological approaches to causation. First he suggests that Weberian ideal types may give us an intuitive model with which to compare. Ideal types, MacIver maintains, are not fixed or immutable, but allow for violation and historical change, but nevertheless if the actuality is to resemble the ideal types individuals will ultimately conform to identifiable norms, which become reflected in the institutional structure of the system. These in turn produce laws and through observation the law becomes understandable in terms of the motives and meaningful intentions of the individual. For MacIver ideal types help us to reveal and understand the sustaining features of a social situation and thus more readily identify its agents of change. To some extent this use of ideal types[2] does at least partially resemble the realist conception of a mechanism, though elsewhere MacIver hints at a closer resemblance in his thinking to this (I shall return to this below).

His second suggestion in seeking a precipitant cause is to ask what could have alternatively happened. This is what he terms an 'anti-precipitant', 'in assigning the decisive role of precipitant to any act or event we are in substance claiming to know, not only what actually happened, but what *would have happened* had this act or event not occurred' (ibid., 180). This, as he points out, is fine in a situation whereby one says a person would not have died had he not been shot, but quoting Tolstoy at length he problematises the idea of 'anti-precipitants' in the example of the War of 1812. Whilst the historian might say that had Napoleon not taken offence when requested to withdraw beyond the Vistula there would have been no war, was this in fact the necessary or sufficient condition? We can discern other counterfactuals, such as the refusal of sergeants to lead their troops, or intrigues in the enemy camp. There are chains we can follow to seek the 'anti-precipitant', but there may be more than one chain. This approach is indeed one that is followed today through causal counterfactual analysis (associated with Donald Rubin, 1990), but in order to establish counterfactuals phenomena need be defined, operationalised

[2] Weberian ideal types are nominalist in character (though arguably their use by Mannheim later is less so), though ontologically they can be neutral and equally feature as a heuristic element in realism.

and measured (in say an experiment), quite a different proposition to naming and suggesting counterfactuals to historic events. Indeed all counterfactual reasoning depends on the subjective identification of not just the causal agents, but the alternatives.

Cause as Incentive

In the physical world it is commonly held that teleological causal explanation is fallacious, but in the social world this may not be the case. Conscious agents formulate actions based upon beliefs and this changes both the social and physical world. In his chapter (in *Social Causation*) on cause as incentive, MacIver attempts to set out the problem of purposive action, what he terms 'cause as incentive'. The main problem for this kind of cause is, as MacIver notes, to what extent are we justified in picking out subjective attributes in explanations of individual or group action? If we could be content with describing every individual cause-effect process in a person's actions quite separately, then no real problem arises, but this would not take us far in causal explanation, it would be just description. Rather, we want to subsume subjective individual actions under some explanatory principle, perhaps grounded in rationality, norms, rules and so on. We may seek psychological typologies (MacIver suggests Jung, ibid., 199), 'instinct', or utilitarian universals, such as 'satisfaction' or happiness. Yet MacIver doesn't reach any firm methodological conclusions in this chapter, other than in a somewhat Presbyterian warning about the dangers of ignoring motivations and or citing subjectivities as causes[3]. Nevertheless, in this alone he does prefigure a debate that took place in the philosophy of the social sciences in the 1970s and 1980s (see for example Papineau 1978), about whether beliefs and desires can count as causes. I'm not sure this issue is now, or will ever be resolved, but it remains a factor that cannot be ignored in any theory of causation in the social world.

Cause as Responsible Agent

MacIver's third factor can be seen as somewhat similar to his second, except that it also has a moral dimension of responsibility. It is similar in that the effects arise from conscious acts. Similarly the cause-effect is teleological, but the moral dimension arises in attribution and definition of cause-effect. In

3 He does explore this in more depth in a 1940 paper entitled The Imputation of Motives, but the paper does not go much further than to defend such imputation as scientific, likening the task to the imputation of weather conditions in meteorology (MacIver 1940).

his examples of criminal activity we can say that the criminal was responsible, that is s/he caused the outcome. Similarly if a third person knowingly aids a criminal through their actions they are 'bound to the teleological nexus relative to the act' (MacIver 1964: 227).

The reason there is a moral dimension to responsibility is that others will judge whether or not, or to what extent an agent is responsible for an action. This raises questions of free will and determinism. For example, to what extent do we say a person is responsible for a criminal act, or to what extent do we blame their socialisation, or the circumstances in which they found themselves? Furthermore, the 'criminal act' itself is subject to social definition. Legal responsibility is socially constructed.

Causal attribution and context

Having set out the characteristics and limitations of causal inference in the social world, MacIver introduces a seemingly straightforward concept, which he terms the 'universal formula'. By way of examples from medicine and nutrition (ibid., 262) he returns to the notion of an adequate causal explanation as that in which we can identify those conditions that make a difference, either historically or in a contemporary situation. The site of this kind of reasoning is the classic laboratory experiment, where 'the *x* manifesting C, by the removal, modification, or addition of factors until the particular nexus relating to *x,* to its immediate causal context can be located (ibid., 256). So, in the manner of the Grand Old Duke of York, he led us to the top of the [causal] hill and he led us back down again! And on the way down he rehearses once again the difficulties of the violations of assumptions that the social world imposes on such reasoning and he adds a new one, what Goldthorpe (1997) calls the 'small N problem'. This is the problem of not enough units of analysis (wars, revolutions, countries etc) to allow the formulation of an explanatory law or generalising statement arising from the causal nexus.

However, having weaved a tortuous path through causal inference and its limitations and pretty much brought us back to where he started, he then suggests some analytic devices that move his notion of social causation into (what was for the time) new territories. First he sets out three 'realms' of causation, the physical (characterised he claims by invariance), the organic and that of the conscious being. He then further divides the latter into the cultural order,

the technological order and the social order. Perhaps anticipating the obvious point that the technological and the cultural may each be subsumed under the social, he assigns a particular meaning to the social in this classification. In our normative use of the term 'social' in social science we tend to mean every manifestation of human interaction, consequently the term social ceases to have meaning and could be replaced by that of 'human' (ibid., 274 *ff*). In MacIver's developing schema of causation the three realms play an important role. The first, the cultural, is the interrelationship of values and goals within a particular milieu. The second, the technological, is the development and application of technological skills, both material and political that advance and shape the values and goals in the cultural order. Finally, the social order has the special meaning of 'the patterns, and trends of the modes of relationship between social beings as revealed in their group formations and in their multifarious modes and conditions of association and disassociation' (ibid., 273). What we would today call social structure.

MacIver does not see these orders as existing in isolation or separation, but dynamically linked. Indeed he spends some while discussing the difficulty of separating the first two in 'primitive' societies. Though he does not pursue the issue, other than speaking of modes of production, his technological order has an implicit materialism that would permit the kinds of linkages to the physical and organic realms.

At this point in his work takes on something of a Parsonian timbre. He spends some time discussing the integration, or its absence, of the three orders, how social change arises from their disruption through conflict and indeed how conflict then changes the nature of the relationship between the orders as a result of changed goals, limitations and possibilities. Particularly reminiscent of Parsons' 'unit act' (Parsons 1949: 43) he then spends two chapters discussing how individuals make dynamic assessments of their situations and act upon them to bring about conscious or unconscious change. Often these changes, at the micro level, will serve to sustain and develop a social order, but in other cases changes may be brought about that make society x different to society y, or time *t1* different to time *t2* in the same society. His examples of marriage, divorce rates, births and crime emphasise the importance of the location of effects in particular social and historical milieu and the impossibility of seeking generalisations or laws which transcend these. His message is at last clear: 'When we begin with a postulated cause there is a peculiar temptation to insulate this causal factor as though it operated independently' (ibid., 366). The dynamic nature of the interrelationship between the three orders and

the individual dynamic assessment and subsequent action which changes them does not permit the isolation of a simple cause–effect relationship as one would bring about in a laboratory experiment in the physical or organic realm.

MacIver's causation is multi layered and complex. The x → y causal nexus is not simply a straightforward push-pull relationship between two variables, but a nested matrix of relationships between the physical and social world, psychological dispositions and the particular manifestation of the social (in the sense meant by MacIver). In a response to his critics after the publication of the first edition of *Social Causation*, he sums his view up as 'The investigation of causes is always the pursuit of the specific linkage of a differentiating phenomena.' (MacIver 1943: 57).

Realism and Causation

Before going on to discuss my claim that MacIver was advocating a realist version of causation I will briefly outline the contemporary critical / analytic realist version of causation[4].

As a philosophy realism pre-dates empiricism, but as an explicit methodology in the social sciences its history goes back no further than Russell Keat and John Urry's *Social Theory as Science*, published in 1975 (Keat and Urry 1975). A number of classic sociologists, particularly Marx and Durkheim, have been since claimed for realism, but for all practical purposes realism is a relatively new challenger to the dichotomies of empiricism/idealism, positivism/interpretivism[5] that have dominated throughout the history of sociology. In the social sciences the terms 'realist' and 'realism' would have been unknown in MacIver's day, so as in the case of Marx and Durkheim I am similarly claiming him as prefigurative realist.

The most influential figure in the development of social science realism

[4] Critical realist versions of causation and what I've termed 'analytic' are similar in many respects. Indeed the realism of 'analytic' realists such as Pawson (1989; 2000) or Byrne (2000) accepts many of the foundational arguments of Bhaskar and his followers, but develop rather differently. What I term 'analytic realism' does not embrace the moral presuppositions of critical realist philosophy (see Hammersley 2002).

[5] Indeed one could argue that there is more to unite positivism with interpretivism than either with realism. The former two positions are nominalist, the first in its insistence that observation is the only means of discriminating between phenomena and the second in the similar prioritisation of ideas.

has been Roy Bhaskar (1978; 1998), who coined the term 'critical realism'. A theory of causation is central to critical realism. Critical realism is an avowedly naturalistic philosophy and it aims to provide a rival philosophy of science and social science to that of empiricism. Yet whilst it and empiricism both lay claim to science, critical realism (and its ensuing theory of causation) might be seen as opposed to the concept of probability, or at least (as in the case of MacIver) this is seen only as a partial explanation (Sayer 1992: 191–2).

A cornerstone for all versions of realism is that there is a reality existing independently of our perceptions of it. However scientific realism (and critical realism as a sub set of this) contains a stronger claim and it is broadly that science must *begin* from the principle of ontological realism and therefore permits the postulation of unobservables that are not directly testable. Its challenge is then to devise a methodology to show how we can obtain knowledge of the reality it assumes, what is sometimes described as 'realist closure' (Pawson 1989: 198–207)

Once we accept the starting premise of ontological realism it is but a small step to accept that there are hidden structures (or as critical realists would have it - mechanisms) producing those things which we can observe, but the difficulty is that we do not know that what we know of *specific* structures or mechanisms is sufficient to explain their observable effects. As Bhaskar put it:

> things exist and act independently of our descriptions, but we can only know them under particular descriptions. Descriptions belong to the world of society and of men; objects belong to the world of nature . . Science, then, is the systematic attempt to express in thought the structures and ways of acting of things that exist and act independently of thought. (Bhaskar 1978: 250)

In empiricism probability stands in for knowledge of structures. In the empiricist/behaviorist social science MacIver criticised, some knowledge of structures can be inferred from the relationship between three or more variables, but the variable to variable relationship, even within a nesting of variables, remains probabilistic and associative. Crucially it rarely captures the *process* of association (Hedstrom 2005: 105–6) and just describes its existence. Critical realists are, however, more optimistic and believe in the existence of processual mechanisms, which must necessarily exist but may not be observationally available.

This view is philosophically justified by them through reference to not just one ontological 'level', that of experience, but three: experience, events and reality. Events can occur without being experienced (Outhwaite 1987: 22), which would indicate that there must be something beyond the veil of experience. That which we experience is contingent upon either our selection through theories, or by accident. The aim of the scientist (and by extension the social scientist or sociologist) then, is to make clear the connections between these levels. A full explanation is one that shows how experiences are produced by events and the relationship of these events to structures. In order to do this the sociologist must propose theories, which if they were correct, would explain those underlying structures. The theories are described by Bhaskar as the 'transitive' objects of science. The world itself consists of 'intransitive' objects, that is things exist and act independently of our descriptions (Bhaskar 1978: 250) and prior to investigation (and indeed possibly after) are not known to science. The aim of investigation is to achieve a correspondence between the two. Events are caused, not simply conjoined and therefore a probabilistic explanation can at best be seen just as a provisional one.

Critical realism has given rise to variants, what I have termed 'analytic realism'. Perhaps the one closest to MacIver work is that of Ray Pawson (1989; 2000). Though there are similarities between critical realism and Pawson's version, the latter is also strongly influenced by Merton's 'middle range theory' (Merton 1968). Thus he provides the outline of a methodological programme that combines Merton's middle range theorising with a realist approach to research. Indeed he maintains that to realise the utility of middle range theory, realism is necessary (Pawson 2000: 291–3).

Echoing MacIver's critique of empiricist reasoning, Pawson (2000: 301) suggests that the underlying theory of most survey analysis is 'flattened', taking the form X→ Y, or in Merton's words, 'isolated propositions between two or more variables' (Merton 1968: 41). Yet Pawson maintains that whilst Merton took us beyond descriptive generalisations from variables, he nevertheless 'flattened ' middle range concepts so that they do not discriminate between different layers of social reality. Furthermore he was more concerned to stretch concepts (for example anomie) to see how far they would go in accounting for a range of behaviour, or to integrate them into more general typologies. For instance anomie becomes just one feature of a general typology of adaptation to society (Pawson 2000: 290–1). In doing this Merton provides a description of an end state of a 'generic network of theories with which to confederate enquiry' (op cit: 293), but he fails to

provide ontological depth, or practical help to the researcher in providing the means to these end states.

Pawson's revision of Merton centres on a deeper ontological understanding of what he terms context and mechanism. Events (or outcomes) of the form X→ Y do not occur in social isolation, nor are they determined. Rather, they are outcomes of context + mechanism. A mechanism needs certain conditions to be realised and they are provided by the context. The outcome O is therefore the result not just of a 'push-pull' causal process, but the actualisation of a mechanism as a result of a contextual stimuli. This C+M=O model is multi-dimensional. What serves as a context in one instance will be evidence of a mechanism in another.

MacIver the Realist

To fully grasp MacIver's realist agenda on causation[6] it is perhaps necessary to go back to his earlier writings, in particular his address to the ASA in 1930 (MacIver 1933). It is here that he first clearly sets out his agenda that is developed twelve years later in *Social Causation*. The latter work fleshes out his methodology and links it to his social theory. This makes the latter chapters, in that book, on causal attribution and context much more explicable. In his ASA address he succinctly promotes sociology as not simply a science of the gathering and statistical manipulation of facts, but rather one of a science of facts as theorised. Indeed his argument is that the positivists were themselves being unscientific in claiming that facts spoke for themselves and that theories were metaphysical entities. Rather, for MacIver, facts must be interpreted and theories, though tested, cannot ever be inductively proven and rarely refuted (certainly by single instances). MacIver brings theory back in. This was his epistemological starting point, but he also has an ontological one (later developed as the Dynamic Assessment) that social reality unlike physical reality has two dimensions:

> Every social situation consists in an adjustment of an inner to an outer system of reality. The inner system is a complex of desires and motivations; the outer is a complex of environmental factors, in so far as these

[6] It is important to notes that MacIver (to my knowledge) did not use the term 'realist' to describe himself or his methodology. He does, however, use the term 'reality' on several occasions.

> constitute the means, opportunities, obstacles, and conditions to which the inner system is adjusted. It is this relationship between an inner and an outer which constitutes, in respect to the problem of causation, the essential difference between the social and the physical sciences. The latter are concerned with an outer order alone. (MacIver 1933: 35)

MacIver's version of causation incorporates two realist principles. First that 'facts' interpreted simply as observations do not adequately describe any world. Observations may be evidence, but evidence of what? Without interpretation we cannot make sense of the 'facts', or even begin to know which facts to 'gather'. Furthermore our interpretations will constitute an imperfect knowledge, but one that will hopefully be an improving knowledge.[7] As with Bhaskar he suggests that things act independently of us and that we discover them contingently, or as a result of our theorising. The job of sociology is to produce theories, which if they were true, would explain the phenomenon in question.

Second his concept of realms of reality, in which there is an interconnectedness between the physical, psychological and social injects the naturalism that is usually associated with scientific realism.[8] This is less developed than in modern forms of realism, but it remains a principle.

MacIver's aim is to produce a version of causation that is a better basis for a scientific social science than the correlational method of the positivists. The science he defends is a falifibilistic and interpretive exercise and a science of the social must take into account the particular nature of the social world. Thus his defence of the causal imputation of motives is entirely consistent with his defence of science, though in a 1940 paper is moved to specifically defend this position (MacIver 1940) from charges of animism and subjectivity. A causal imputation of the social must consider the possible counterfactuals of agency and the social motivations for such agency (though, of course, he problematises this in *Social Causation*). It must consider aims and intended states and the moral attribution of motives. This last moves him into the anti-value freedom position later adopted by Gouldner (1968) and Becker (1967) and is arguably more humanistic than realist. Though it may, nevertheless, also be

[7] Intriguingly, there are prefigurations of Karl Popper's falibilism here, and even Imre Lakatos's more sophisticated version of falsification. Though there is no suggestion that either philosopher knew of MacIver's work.

[8] Logically realism does not have to be naturalistic. One could posit mental 'kinds' as separate entities to physical kinds, but this leaves the old philosophical problem of dualism unresolved.

regarded as prefiguring the 'emancipatory' claims of critical realism (Bhasker 1986). In MacIver's case the moral position you begin with or attribute to a social situation will make a difference to your causal imputation. In the case of critical realism the revelation of the real structures of the social world, from a perspective, will provide a more authentic knowledge upon which to act.

MacIver's realism, put into the language of modern realism, can be summarised as the claim that humans make their reality through the interaction of agency and structure within the realms of the cultural, technological and social. Second that the descriptions of the manifestations of these in any given society is a theoretical construction of the social scientist, but the aim of the social scientist is to uncover that reality. This requires both the strategy of observation and correlation, but also the strategies of interpretation and imputation.

Consequently his version of causation is an inferential, rather than a deterministic one. But it is not probabilistically inferential in that causal claims cannot be made on the basis of multiple statistical association (though such associations may form the basis for the commencement of inference). Rather, the social scientist infers from the best available evidence what the cause of a phenomenon might be. This requires the social scientist specifically to contextualise the phenomenon in its contemporary and historical setting, but also take into account agent motives and goals. We can see here the relevance of ideal types as a heuristic, but also a more recently identified inferential device known as 'inference to the best explanation' (Lipton 1991). This requires the scientist to review evidence for the causal explanation of a phenomenon on the basis of the most likely reasons for the outcome. In light of further evidence the inference can be modified. MacIver's own example of the fluctuation in divorce rates serves as an example. US divorce rates between 1920 and 1936 apparently had a greater fluctuation than the marriage rate in relation to levels of business activity. In times of economic hardship divorce rates fell and the inference was that this was due to the high cost of divorce. However in a seemingly similar economic climate in England there was no such fluctuation and indeed the divorce rate was comparatively low. MacIver's causal inference was that in the latter case this was explained by the relative strength of family attachments as compared to the United States. In this example we see a version of Pawson's C+M=O model. Marriage can be seen as a mechanism that contains 'causal powers', which are realised through context. The context may be territorial (the UK or US) or the result of events such as economic change, or a combination of these.

MacIver would undoubtedly have acknowledged that this was not the final word, but more of a causal hypothesis. Indeed, one could have introduced other explanatory factors such as differences in the laws relating to divorce, the role of different religions (or their absence) and so on. Of course, MacIver is not simply saying that causal attribution is by inference alone, but would necessitate empirical verification or falsification.

In this approach the inference to non-observables is the inference to context and it is this inference to context along with empirical investigation that firmly places MacIver in the modern realist camp.

Conclusion

MacIver's version of causation is realist because it postulates the existence of real underlying social structures that have 'causal powers'. As with the self-proclaimed realists that followed him, he maintained that a full account of causes can only be known through a knowledge of these structures and the context within which they operate. In my view realist causation has two positive features that should be retained in any theory of causation. First, that the selection of a model and the variables that go into that model can never be free of normative assumptions. Normative assumptions are not the same as subjective ones (Williams 2005), but they are the result of selection processes that are psychological and social. MacIver was right to stress this in his categorisation of Cause as incentive and modern realists are right (to use Bhaskar's language) to distinguish between the 'transitive' objects of science (our theories) and the 'intransitive objects', the real structures of the world that our theories and research seek to uncover (Bhaskar 1978). Second, variables themselves are, as Dave Byrne argues (Byrne 2002: 29–31), actually 'variate traces'. Rather like the exhaust fumes that provide evidence of the proximity of a car, they can only provide evidence of the existence of something deeper and broader.

The weakness of MacIver's theory of causation (and realist versions more generally) is that they rely on a concept of natural necessity. MacIver, as I noted, denounces logical necessity and his version of causation implies a natural necessity even if this can only be heuristically imputed. From the beginning of *Social Causation* this principle is clear. We note change or its absence and it is inconceivable that change does not come about as a result of something else happening. With this it is easy to agree, but whilst we can see

that in the general sense causes are necessary, the ability to show such necessity is constrained. At a metaphysical level it seems right to assume that effects have a necessity, because at some point they become inevitable and a cause is realised. But unfortunately our empirical grasp of such events is limited to the single case and is *a posteriori*. For example, many US states claim to punish first degree murder by the death penalty. But there is no necessity in any individual convicted of murder being executed until the execution has taken place. Before that there is only a changing probability for that individual. Moreover, to say (something like) the legislation operating in a particular state causes increased executions, is by its nature a probabilistic not a deterministic statement simply because not all those convicted will be executed and those executed may have suffered this fate in spite of the legislation. Necessity cannot be demonstrated *a priori* and neither can causation, if it is taken to imply necessity. Finding the 'thing that makes the difference', or the counterfactual, as MacIver advocated is all but impossible, except as a matter of inference. Thus his use of ideal types (or as I attributed to him) inference to the best explanation is the best we can do. As MacIver succinctly put it, in his 1940 paper:

> The assertion of any relationship, no matter how simple or obvious, involves the appeal to reason, and its establishment is a scientific construction. We do not perceive the relationship of the earth to the sun or of a child to its mother, we only infer it. (MacIver 1940: 1)

Methodologically this brings us to the conclusion Hubert Blalock reached some years later, that we can assume and theorise a reality, but we can only model it. Our models are not real, they could never incorporate the complexity of reality and if they did they would not be models but reality itself. This does not imply an abandonment of realism, or a rejection of realist causation, including the MacIver version, but it sets limits on the extent to which we can demonstrate necessity.

We can theorise social structures as real and impute to them causal 'powers'. We can them demonstrate the likelihood, perhaps expressed as probability, of the operation of the emergent causation in the specific context. But the way in which we do this is, as Blalock insisted, is through a model. It is a heuristic device. MacIver's critics (see MacIver 1943b for his response to criticisms of *Social Causation*) were wrong to dismiss his theory as metaphysical. In so far as it was a heuristic to show how we can demonstrate empirically the causes of social reality it was practical and much more sophisticated than anything on

offer from the positivists. If it is an 'historical curiosity' that is only because it failed to substantially influence the course of scientific sociology in the United States or beyond and consequently there is no line of succession to contemporary theories of causation. However in any kind of project to construct a realist theory of causation in sociology, MacIver may repay renewed attention.

University of Plymouth

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