Alasdair MacIntyre on Generalisations in Social Science

For 200 years it has been believed that social science is able to provide a stock of law-like generalizations with strong predictive power. Confidence in managerial expertise stands on this foundation. Yet "the salient fact about those sciences is the absence of the discovery of any law-like generalizations whatsoever" (88).

All so-called laws governing human behaviour turn out to be false. Still the conventional philosophy of social science has asserted that the task of the social scientist is the production of law-like generalizations. Since, in fact, social science does not produce generalizations of this kind, it might be expected that many social scientists would thumb their noses at this conventional philosophy, but they don't.

One good reason for this is if the notion of managerial expertise collapses then government and private corporations do not need to employ social scientists as expert advisors. This would happen if it became accepted that managers do not in fact have a knowledge of law-like generalizations that would enable them to predict the outcomes of alternative policies. MacIntyre observes that the predictive failure of economists and demographers is an empirical fact.

The predictively weak nature of the social sciences and their inability to discover law-like generalizations are two symptoms of the same condition. MacIntyre proposes that "that the true achievements of the social sciences are being concealed from us – and from many social scientists themselves – by systematic misinterpretation" (90).

MacIntyre cites four examples:

1. James C. Davie's thesis that revolutions occur when a period of rising and to some degree gratified expectations are followed by a period of set-back when expectations continued to rise and were sharply disappointed.
2. Oscar Newman's generalization that the crime rate rises in high-rise buildings with the height of the building up to a height of 13 floors, but levels off at more than 13 floors.
3. Egon Bittner's discovery of the differences between the understanding of what law means in police work and what it means in the practice of courts and lawyers.
4. Rosalind and Ivo Feierabend's contention "that the most and least modernized societies are the most stable and least violetn, whereas those at midpoint in the approach to modernity are most liable to instability and political violence" (90).

While all these generalizations rest on distinguished research and are buttressed by impressive examples, they share three characteristics:

1. All coexist with recognised counter-examples, which do "not seem to affect the standing of the generalizations in anything like the way [they] would affect the standing of generalizations in physics or chemistry" (90). Indeed, Laquer argues that the Russian revolution of 1917 and the Chinese of 1949 *refute* Davie's generalization and that the patterns of political violence in Latin America *refute* Feierabends' claim.
2. All lack not only universal quantifiers, but also scope modifiers. That is, in contrast to the physical sciences, "we cannot say of them in any precise way under what conditions they hold" (91).

3. None of them "entail any well-defined set of counterfactual conditionals in the way that law-like generalizations of physics and chemistry do" (91). Since we don't know how to apply them systematically beyond the limits of observation to unobserved or hypothetical instances they are not laws, whatever else they may be.

Some social scientists respond to MacIntyre's criticism by reasoning that the social sciences discover probabilistic generalizations, which thus allow for counter-examples. But the probabilistic generalizations of natural science are as law-like as any non-probabilistic generalizations, whereas the so-called "probabilistic" generalizations of social science are nothing but a mere list on instances.

MacIntyre suggests that modern social scientists are looking in the wrong place for thei philosophical ancestry, namely the 18th and 19th centuries, concerning which MacIntyre contends: "brilliant and creative as they were, were in fact centuries not as we and they take them to be of Enlightenment, but of a peculiar kind of darkness in which men so dazzled themselves that they could no longer see and ask whether the social sciences might not have had an alternative ancestry."

Suppose there is rectitude in the belief of Enlightenment thinkers that they were able to invoke a law-like generalization to explain retrospectively and that they were able to invoke a similar generalization to predict prospectively. The implication of this is that it is as disgraceful for the social scientist to fail to predict a war or revolution or for an economist to fail to predict a change in the rate of inflation as it would be for an astronomer to fail to predict an eclipse. Why isn't such failure to predict regarded in this way? Attempted explanations include:

1. The human sciences are still young sciences. This is false. They are as old as the natural sciences.
2. The natural sciences rather than the social sciences attract the most able individuals in modern culture. Evidence indicates this is partly true.

Machiavelli had a very different view of the relationship between explanation and prediction from that taken by the Enlightenment, especially in his concept of *Fortuna*. Actually, Machiavelli shared the goal of Enlightenment thinkers to find generalizations that might furnish maxims for enlightened practice. Yet he believed that even with the best possible stock of generalizations, "we may on the day be defeated by an unpredicted and unpredictable counter-example" (93). While "improvements in our knowledge may limit the sovereignty of *Fortuna*, the bitch-goddess of unpredictability; we cannot dethrone her" (93).

MacIntyre argues that there are four sources of systematic unpredictability in human affairs:

1. *The nature of radical conceptual innovation*. This is to be distinguished from just new conceptual inventions. For while Jules Verne predicted lighter-than-air flying machines this is not a radical innovation but "merely an additive construction from existing stock of concepts" (94), given the concepts of a bird or even a pterodactyl. "Any invention, any discovery, which consists essentially in the elaboration of a radically new concept cannot be predicted, for a necessary part of the prediction is the present elaboration of the very concept whose discovery or invention was to take place only in the future" (93). So Karl Popper's example of

oneself and another in the Old Stone Age discussing the future, with me predicting that within 10 years someone will invent the wheel. "Wheel?" I am asked. I then describe the wheel to the other person and in so doing conclude, "But no one can be *going to* invent the wheel, for I have just invented it." The future of science is thus unpredictable so that, for example, we cannot predict the future of physics nor of mathematics. A good deal of modern computing science in the 1930s assumes the proof of Turing's theorem. Since this proof could not have been rationally predicted, nor could the subsequent scientific and technological work on computing machines have been predicted either. Yet how profoundly all this has shaped many of our lives! The discoveries of quantum mechanics or special relativity, the invention of the genre of tragedy at Athens in the late sixth century BC, the first preaching of Luther's distinctive doctrine of justification *sola fide* and the first elaboration of Kant's theory of knowledge – all of these were unpredictable before they occurred. "The striking implications for social life in general are clear" (95). Yet in all these cases unpredictability coexists with explicability.

2. "[The] way in which the unpredictability of certain of his own future actions by each agent individually generates another element of unpredictability as such in the social world" (95). When I haven't made up my mind which of two options I will choose I cannot predict which I will take. Yet what I can't predict of myself others may be able to predict about me. But an observer able to do this is unable to predict his own future in the same way I can't predict mine. This includes his inability to predict "how far his actions will impact upon and change the decisions made by others" (96). He can't predict what alternatives they will choose and what sets of alternatives will be offered to them for choice. Since he can't predict the impact of his future actions on my future decision-making he can't predict my future actions any more than he can his own, something which is true of all agents. Unlike God we are not omniscient, the only condition that excludes the making of decisions, since God confronts no as yet unmade decision.
3. The game-theoretic character of social life. Formal structures of game theory have been applied to political science in order to generate law-like generalizations. But there are three obstacles to the transfer of the formal structures of game theory to the interpretation of actual social and political situations:
    a. The infinite reflexivity of game-theoretic situations. Even when one is familiar with the formal structures of the situation and knows each player's interest it is still impossible to know what the simultaneous attempt to render others predictable and oneself unpredictable will produce.
    b. Game-theoretic situations are characteristically situations of imperfect knowledge. This is inevitable since each player is very concerned to maximize the imperfection of the information of certain other players at the same time as he improves his own. It is also likely that in order to misinform other players it will be necessary to successfully produce false impressions in external observers. The ability to deceive successfully is often a key condition of success.
    c. In any given social situation it is frequently the case that many different transactions are taking place at one and the same time between members of the same group. This means that not one game is being played, but several. Further, even if it is possible to identify with some certainty what game is being played, in "real life situations, unlike both games and the examples in books about game-theory, we often do not start with a

> determinate set of players and pieces or a determinate area in which the game is to take place" (98).

Pure contingency provides yet another source of unpredictability. Clearly, trivial contingencies can powerfully influence the outcome of great events, e.g. "the molehill that killed William III or Napoleon's cold at Waterloo which led him to delegate command to Ney, who in turn had four horses shot from under him that day, which led to faults in judgment, most notably to sending in the *Garde Impériale* two hours too late. There is no way in which all contingencies as moles and bacteria provide can be allowed for in battle plans" (100).

It must be emphasized that unpredictability does not entail inexplicability and, indeed, its presence is compatible with the truth of determinism in a strong version. Assume future computers can simulate wide ranges of human behaviour. They would still be subject to all four types of unpredictability:

> "All of them would be unable to predict radical conceptual innovation or future proofs in mathematics, for precisely the same reasons that we are unable to. All of them would be unable to predict the outcome of their own as yet unmade decisions. Each of them would be involved in its relations to other computers in the same types of game-theoretic tangle which entrap us. And all of them would be vulnerable to external contingencies – power failures, for example. Yet each particular movement of an in each computer would be wholly explicable in mechanical or electronic terms" (100).

It is crucial to notice the intimate relationship of unpredictable elements in social life to the predictable elements. The latter are of four kinds:

1. Arising from the necessity of scheduling and coordinating our social actions. "In every culture most people most of the time structure their activities in terms of some notion of a normal day… We all have a great deal of tacit, unspelled-out knowledge of the predictable expectations of others as well as a large stock of explicitly-stored information" (102).
2. Arising from statistical regularities, e.g. we know we all tend to catch more colds in winter; that a person is more likely to be murdered by his or her spouse than by a criminal stranger. But just as unpredictability does not entail inexplicability, so predictability does not entail explicability.
3. Arising from knowledge of the causal regularities of nature: snowstorms, earthquakes, plague bacilli, height, malnutrition and the properties of protein all place constraints on human possibility.
4. Arising from knowledge of causal regularities in social life, e.g. in societies such as Britain and Germany in the nineteenth and twentieth centuries by and large one's place in the class structure determined one's educational opportunities.

"It is at once clear that many of the central features of human life derive from the particular and peculiar ways in which predictability and unpredictability interlock. It is the degree of predictability which our social structures possess which enables us to plan and engage in long-term projects; and the ability to plan and to engage in long-term projects is a necessary condition of being able to find life meaningful. A life lived from moment to moment, from episode to episode, unconnected by threads of large-scale intention, would lack the basis for many characteristically human institutions:

marriage, war, the remembrance of the lives of the dead, the carrying on of families, cities and services through generations and so on. But the pervasive unpredictability in human life also renders all our plans and projects permanently vulnerable and fragile" (103).

Another source of vulnerability and fragility is the character of the material environment and our ignorance. "Each of us, individually and as a member of particular social groups, seeks to embody his own plans and projects in the natural and social world" (104). To do this we seek "to render as much of our natural and social environment as possible predictable." We look to natural and social science to assist us here, while trying to preserve our independence, freedom, creativity and inner reflection from invasion by others. For life to be meaningful we "wish to disclose of ourselves no more than we think right and nobody wishes to disclose all of himself… We need to remain to some degree *opaque and unpredictable*, particularly when threatened by the predictive practices of others." Also, while on the one hand we need predictability to engage in long-term projects, we also need unpredictability to "be in possession of ourselves and not merely be the creations of other people's projects, intentions and desires." This means that simultaneously we seek "to render the rest of society predictable and ourselves unpredictable, to devise generalizations which will capture the behaviour of others and to cast our own behaviour into forms which will elude the generalizations that others frame" (104).

Given the above general features of social life, what are the characteristics of the best possible available stock of generalizations about social life? While based on much research, their inductively-founded character will appear in their failure to approach law-likeness. "No matter how well-framed they are the best of them may have to coexist with counter-examples, since the constant creation of counter-examples is a feature of human life. And we shall never be able to say of the best of them precisely what their scope is. It follows of course that they will not entail well-defined sets of counterfactual conditionals. They will be prefaced not by universal quantifiers but by some phrase as 'Characteristically and for the most part…'" (104). It is not surprising that the generalizations and maxims of the best social science share certain characteristics of their predecessors – the proverbs of folk societies, the generalizations of jurists, the maxims of Machiavelli.

Empirical research indicates that organizational effectiveness is incompatible with total or near total predictability, since it must be able to tolerate a high degree of unpredictability within itself, i.e. "allowing for individual initiative, a flexible response to changes in knowledge, the multiplication of centres of problem-solving and decision-making" (106). Consequently, "the project of creating a wholly or largely predictable organization committed to creating a wholly or largely predictable society is doomed and doomed by the facts about social life" (106).

It follows from this that "[the] concept of managerial efficiency is…one more contemporary moral fiction and perhaps the most important of them all" (106-107). While it is admitted that many managers and bureaucrats do have specialized knowledge and that their activities do have effects and while we may suffer from those effects, perhaps seriously, "the notion of social control embodied in the notion of expertise is a masquerade" (107), since this is beyond anyone's control.