How Rational Is Popper's Rationality Principle? A Reply to Boris Salazar

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In my paper 'Economics and the origin of Popper's situational analysis' (Oakley, 1999a), I documented Karl Popper's references to economics as a main source of, and means of defending, his version of situational analysis and the rationality principle (SA-RP). Popper recommended that models grounded on the SA-RP metatheory should form the core of formal analysis in all the social sciences and used what he saw as their successful application in, and dominance of, mainstream microeconomics to underpin the viability of this suggestion. Behind his doing so was the idea of a 'unity of science' in which the methodology of the natural sciences as he envisaged it should be applied to the theoretical analysis of the human realm. My conclusion was that by resorting to the methodological exemplar of microeconomics in pursuit of this 'unity', Popper's approach to the social sciences moved away from the realism to which he claimed to give priority and towards an instrumentalism that he rejected.

Boris Salazar's (2000) critical note on my paper seeks to defend the lasting significance of Popper's definition and use of the RP by arguing that its immediate real-world relevance in the context of SA is not an issue in establishing its usefulness in theory construction. The RP is accepted by Salazar as making 'no claims on reality', as not intended 'to predict agents' real actions' (p. 59), and as an assumption that 'cannot be tested or falsified' (*ibid.*). Popper is reported as having 'ruled out any predictive power for his principle', and as believing that it has 'no psychological or empirical consequences and, of course, [that] it does not pretend to predict any real, observable economic behaviour from any real, observable economic agent' (p. 61) It is, rather, indicative of an assumption of 'complete rationality' that constitutes 'just a theoretical construction, a methodological device' (p. 60) that has 'only methodological, heuristic and prescriptive effects' (p. 61). These are correct observations about what Popper made of the RP, but my critical point was that this version of the RP cannot provide any realist insight into human action. Salazar's claim is also that in Popper's analyses, there is 'nothing in the SA-RP approach that makes it entirely, or crucially, dependent on the instrumentalist and formalist methodology of conventional economic theory' (p. 59). In particular, Salazar claims that the sterile form of the RP with which Popper identified can be lifted out of these methodological confines.

Salazar's position is that in his treatment of the RP, Popper is a harbinger for better things to come. In this sense, argues Salazar, my critique of Popper's RP misses its essential significance for economics. There are two aspects of his defence of this version of the RP, and each is an attempt to give the RP some realist status by bringing it into contact with the real world of human agency. First, Popper's RP is to be read as no more than an approximation to what should be an open-ended depiction of rationality as it can be applied within the limits of each situation in which agents find themselves. It is this open-endedness of the RP that allows flexible degrees of rationality to be included in models of economic action. Secondly, Popper's evolutionary understanding of the rational capacity implies that learning to be more rational, and surviving with success as a consequence, is somehow carried forward

through the generations, making humans increasingly 'capable of formulating problems, advancing tentative solutions 'and criticizing outcomes through an open-ended process of trial and error' (p. 59).

Although each may have some Popperian content, neither of these defences helps us much with meaningfully including rationality in economic analyses. It cannot be denied that most agents do their best to be rational in the circumstances they confront, to act 'in accordance with the situation' in Popper's words, and that this best endeavour has an evolutionary content. It is equally clear that in doing their best, the real-world rationality of agents does deviate from the omniscience of 'perfect rationality' presumed in the RP, making agents fallible in their decisions and actions. The problem with making the pure RP an approximation to such limited rational capacity and consequent fallibility is that perfection in the use of cognition and reason cannot be uniquely defined, especially ex ante to action when it is really at issue. Thus, as I argued in my paper, the observed deviations from 'perfect rationality' to be included in the analysis cannot be defined as such, or 'measured' in an empirically meaningful way, either.

Salazar's response here is to argue that my critique of measuring the deviation from the perfect rationality idea is unfounded . He bases his claim that no such actual measurement is relevant on the notions that it is appropriate to treat 'the rationality of agents as an open research subject', and that in each set of circumstances, the evolutionary dimension of rationality will give it some emergent quality. The first of these notions misses the point because it refers to the problems of the analyst in dealing with real-world rationality and tells us nothing about agents themselves. For agents, reason and cognition are the only qualities they have here and now for dealing with their problems; they are not primarily, if at all, concerned with these things as subjects of 'research'. The second notion is similarly flawed in that it is concerned with observed effects of attempts to be rational ex post. There will inevitably be such emergent qualities in the outcomes of applying reason to circumstances, but this has no relevance for our understanding of agents doing so ex ante under ever-changing circumstances.

As I indicated in my paper, but did not develop, there are good, emphatically human reasons for these deviations from perfect rationality. Salazar does not take up my reference to the critique of rationality developed by George Shackle, in which the challenge for any defence of the RP is to show what it really means for agents to apply reason to their circumstances, as they clearly do when making decisions (see Oakley, 1999b). Even allowing for the evolutionary development of reasoning powers, this is a challenge that still has two parts, each of which relates to our understanding the *ex ante* position of decision-making agents here and now: what exactly constitutes the circumstances with which agents must contend?; and, what is the potential of delimited human cognition and reason for dealing with these circumstances? As Shackle cogently argued, once the realities of time are integral to the agents' environment, the constitution of their circumstances requires the addition of an expected future that can only be imagined rather than known. In dealing with the infinities of the imagination, continues Shackle, agents' cognition and reason cannot provide them with any definitive guide to 'rational' choice and action. And any argument about incomplete knowledge becomes a *non sequitur* because there is no knowledge to be had in the usual sense (see Shackle, 1979).

As added support for his position that the RP has realist potential, Salazar draws attention to the fact that in a number of fields of modern microeconomic theory,

the concept of rationality has broken out of the narrow confines of its roots in the RP on which Popper focused. It is, indeed, to be welcomed that in these fields, the notion of human rationality and the knowledge assumptions that go with it are the subjects of ongoing critical research. Salazar claims that there is extant an 'impressive mass of work' in these fields. But, one less than 'impressive' feature of this new microeconomics is that its widely-accepted and roundly-applauded game-theoretic models, at least, continue to give priority to methodological form over realist human content. This fact is apparent to 'insiders' (see Camerer, 1997; Mailath, 1998), as well as to critics (see Rizvi, 1994). The vision of the human realm implicit in these models continues to fail the basic test of realism in not allowing for the fact that the outcomes of individual and collective human action are incorrigibly contingent and 'open-ended'. The import of this fact for economic theory is also elaborated in the writings of Shackle (1972), as well as in those of Spiro Latsis (1972, 1983) and Tony Lawson (1997). Attempts to render these outcomes otherwise in the interests of mathematical formalism and elegance cannot gainsay the contingency of human reality. What needs more explicit recognition is that if the alternative of moving away from strict versions of the RP is taken seriously, then the formalism and logical certitude of economic modelling as we know it must be forgone without qualification. Modelling that continues to conform to the deductive-nomological format used in mainstream microeconomics, old and new, has all its 'understanding' present from the outset in the assumptions of the *explanans*. The *explanandum* that is supposed to be 'understood' and 'explained' by means of the theory is then no more than the entailed result of an unerring but uninformative logic. The RP is and remains an essential element of the *explanans* in such models, for without it, the strict logic of human action cannot be sustained.

Against this background, it is to be stressed that in my paper, it is not the SA metatheory per se that is at issue. Rather, my critique is directed at the conception and the use made of it by Popper in some of his writings. In particular, what concerns me is his often-stated belief that SA needs to be linked to the artificial logic of the RP, as well as his belief that the resort to this link could be somehow 'validated' by the evident success of microeconomic modelling. It is the imposition of a mode of representing agent rationality merely on the basis that it is required to meet the methodological predilections of theorists that I reject. But, as I have detailed elsewhere, there is ample evidence that Popper was aware of all this to an extent that renders incongruous his uncritical reading and acceptance of the orthodox microeconomics of his day (Oakley, 1999c).

As Salazar himself concedes, 'theoretical economics is, indeed, lacking a general theory of rationality' (p. 61). Although modern economic models recognise more characteristics of what it means for the human agent to be rational, have a broader scope and exhibit a higher degree of analytical sophistication, the crucial point remains that they demand 'closure' in the sense of always reaching some definitive and logically secure outcome. This is not seen as an option by those who devise these analyses. It is a requirement of doing what they consider to be sound economics. But in response to this lacuna in our understanding of agent rationality, what we need instead of iterations on current methodologically-driven modes of analysis is to reconstruct economic theory so that it has its foundations explicitly in the ontological realities of situated human action. As others before me have argued, analyses of the human realm using the SA metatheory, in combination with an empirically typified representation of the human agent, can then provide us with much more insight into

the origins and generation of economic phenomena (see the suggestions in Oakley, 2000). Such theory should be assessed by critically rational (to use Popper's own term) standards that are related to realist representations of decision-making, choice and action rather than to formal elegance and logical closure. A consequence will be that the emergent methodology and epistemological standards will differ from those in the physical sciences (such issues are to be elaborated in Oakley, forthcoming 2001). Progress on any reconstruction of economic theory along these lines requires that these be accepted by economists, in spite of their firmly entrenched vested interest in the current orthodoxy.

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